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# The Semantics of Clause Linking

*A Cross-Linguistic Typology*

EDITED BY

R. M. W. Dixon and  
Alexandra Y. Aikhenvald

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## The Semantics of Clause Linking

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# The Semantics of Clause Linking

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*A Cross-linguistic Typology*

Edited by

R. M. W. DIXON

AND

ALEXANDRA Y. AIKHENVALD

The Cairns Institute

James Cook University

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## *Preface*

Between the typological introduction and final summary, this volume includes revised versions of fourteen of the fifteen presentations at the International Workshop on ‘The semantics of clause linking’, held at the Research Centre for Linguistic Typology, 13–18 August 2007.

Ho-min Sohn, author of Chapter 12, is (besides being a native speaker of the language), the leading world authority on Korean grammar. Guy Deutscher (Chapter 2) is thoroughly familiar with the multitudinous textual corpus of Akkadian. In 1980, Alan Dench (author of Chapter 11) was asked by Algy Paterson, the last fluent speaker of Martuthunira, to document his language. Dench recorded and analyzed a considerable corpus before this language passed into extinction with the speaker’s death in 1995. The other eleven chapters in this volume are by linguists who have each undertaken lengthy spells of immersion fieldwork in a community where the language is actively spoken, and themselves acquired competence in it.

As with previous volumes emanating from our International Workshops (also published in the series *Explorations in Linguistic Typology*) we owe a considerable debt to John Davey, our editor at Oxford University Press. Over the years we have worked with many editors from a number of publishing houses. John Davey is in a class of his own for insight, perceptiveness, efficiency, and—more important of all—the delight which he takes in publishing our books, and the enthusiasm which never fails to cheer us.



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# *Abbreviations*

|          |  |
|----------|--|
| 0        | third person inanimate verbal inflection |
| 1        | 1st person                               |
| 2        | 2nd person                               |
| 3        | 3rd person                               |
| A        | transitive subject                       |
| ABIL     | ability                                  |
| ABL      | ablative                                 |
| ACC      | accusative                               |
| ACHV     | achievement                              |
| ACNC     | additive concessive                      |
| ACT      | active, action                           |
| ADD      | additive                                 |
| ADDR     | addressee                                |
| ADJ      | adjective                                |
| ADV      | adverb                                   |
| ADVS     | advisative hortative                     |
| AFFECT   | affective modality                       |
| AFF.TOP  | affect topic                             |
| AH       | addressee honorific suffix               |
| ALL      | allative                                 |
| ALT      | alternating                              |
| ANAPH    | anaphor                                  |
| AND      | andative                                 |
| ANIM     | animate                                  |
| APPLIC   | applicative                              |
| APPR     | apprehensive                             |
| APPRX    | approximative                            |
| ART      | article                                  |
| ASRT     | assertive                                |
| ASSOC    | associative                              |
| ATTN     | attainment of goal/state                 |
| AVZR     | adverbializer                            |
| BAS      | basic cross-referencing                  |
| BEN      | benefactive                              |
| BRIDGE   | bridging construction                    |
| CASESUFF | case suffix                              |
| CAUS     | causative                                |

|           |                                   |
|-----------|-----------------------------------|
| CERT      | certainty                         |
| CFAC      | counterfactual                    |
| CJEC      | conjectural                       |
| CL        | classifier                        |
| CLF       | subordinate clause final clitic   |
| CM        | conjugation marker                |
| CNJ       | conjunct (dependent) verbal order |
| CNTF      | counterfactual                    |
| CNTREXP   | counter-expectation               |
| COLL      | collective                        |
| COMIT     | comitative                        |
| COMPAR    | comparative                       |
| COMP(.CL) | complement clause                 |
| COMPL     | completive                        |
| COMPLEM   | complementary                     |
| COMPL.VB  | completive generic verb           |
| CONC      | concessive                        |
| COND      | conditional                       |
| CONF      | confirmation marker               |
| CONJ      | conjunction                       |
| CONS      | consequence clause particle       |
| CONT      | continuative                      |
| CONTR     | contrast(ive)                     |
| CONTRA    | contra-expectancy                 |
| COP       | copula                            |
| COS       | change-of-state                   |
| COTEMP    | cotemporaneous                    |
| CTEMP     | contemporaneous                   |
| CURR.REL  | current relevance                 |
| CUST      | customary                         |
| DAT       | dative                            |
| DC        | dependent clause                  |
| DEC       | declarative                       |
| DEF       | definite                          |
| DEM       | demonstrative                     |
| DEP       | dependent                         |
| DESID     | desiderative                      |
| DEST      | destination                       |
| DETR      | detransitive                      |
| DIM       | diminutive                        |
| DIR       | directional                       |
| DIST      | distal                            |
| DLMT      | delimitative                      |

|           |                                 |
|-----------|---------------------------------|
| DS        | different subject               |
| du        | dual                            |
| DVN       | deverbal noun                   |
| ECC       | equative clause complement      |
| ECS       | equative clause subject         |
| EFF       | effector                        |
| ELAT      | elative ('away from')           |
| EMPH      | emphasis                        |
| ERG       | ergative                        |
| EXC       | excised noun class              |
| exc       | exclusive                       |
| EXCL      | exclamative modality            |
| EXHST     | exhaustive                      |
| EXT       | (stem) extender                 |
| F, f, fem | feminine                        |
| FC        | focal clause                    |
| FOC       | focus                           |
| FRUST     | frustrative                     |
| FUT       | future                          |
| GEN       | genitive                        |
| GENL.PREP | general preposition             |
| GO        | 'go' purposive                  |
| GRAD      | gradual                         |
| H, h      | human                           |
| HAB       | habitual                        |
| Hin       | hindi                           |
| HORT      | hortative                       |
| HYPOTH    | hypothetical                    |
| IC        | initial change                  |
| ID        | identifying                     |
| IDEO      | ideophone                       |
| IFUT      | intentional future              |
| IMM       | immediate past/immediate future |
| IMP       | imperative                      |
| IMPERV    | imperfective                    |
| IN        | inessive                        |
| INAN      | inanimate                       |
| inc       | inclusive                       |
| INCEP     | inceptive                       |
| INCH      | inchoative                      |
| INCP      | incipient                       |
| IND       | independent verbal order        |
| INDEP     | independent                     |

---

|            |   |
|------------|---|
| INDIC      | indicative                                    |
| INDIV      | individuative                                 |
| INFIN      | infinitive                                    |
| INFL       | inflection                                    |
| INST       | instrumental                                  |
| INT        | intentional                                   |
| INTENS     | intensifier                                   |
| INTENT     | intensive/future tense/mode                   |
| INTER      | interrogative                                 |
| INTERJ     | interjection                                  |
| INTRR      | interior                                      |
| INV        | inverse                                       |
| INVOL      | involuntary state                             |
| IRR        | irrealis                                      |
| ITER       | iterative                                     |
| JUS        | jussive                                       |
| LAT        | lative ('up to, as far as')                   |
| LIG        | ligature                                      |
| LIM        | limiter                                       |
| LINK       | linker  |
| LOC        | locative                                      |
| log.sp     | speaker logophoric (coreference with speaker) |
| M, m. masc | masculine                                     |
| MC         | main clause                                   |
| MED        | mediative                                     |
| Mf         | marker to focal clause                        |
| MID        | middle  |
| MIN        | minimal                                       |
| MKR        | marker  |
| MOM        | momentary perfective aspect                   |
| Ms         | marker to supporting clause                   |
| N          | noun  |
| n          | neuter  |
| NARR       | narrative modality                            |
| NASS       | non-assertive                                 |
| NEG        | negation                                      |
| NF         | non-final                                     |
| NFUT       | non-future                                    |
| NI         | non-inflecting verb                           |
| NOM        | nominative                                    |
| NOM.AT     | nominal atemporal cross-referencing           |
| NOMZ       | nominalizer                                   |
| NORM       | normative                                     |



|         |   |
|---------|---|
| NP      | noun phrase   |
| NPAST   | non-past  |
| NPRES   | non-present   |
| nsg     | non-singular  |
| NSPEC   | non-specific  |
| O       | transitive object   |
| OBJ     | object  |
| OBL     | oblique   |
| OBLIG   | obligative  |
| OBV     | obviative (contrasted with proximate)                     |
| ODIR    | other (non-speaker) directed                              |
| ON      | superessive ('on top of')                                 |
| OPT     | optative  |
| PANA    | propositional anaphor                                     |
| PART    | particle  |
| PASS    | passive   |
| PER     | perfect   |
| PERI    | peripheral  |
| PERL.FR | marker within predicate showing fronting of peripheral NP |
| PERM    | permissive  |
| PERS    | personal  |
| PERT    | pertensive  |
| PERV    | perfective  |
| pl, PL  | plural  |
| POL     | polite ender  |
| POSS    | possessive  |
| POSSIB  | possibility   |
| POSTP   | postposition  |
| POT     | potential   |
| PREC    | precedentive  |
| PREP    | preposition   |
| PRES    | present   |
| PRET    | preterit aspect   |
| PRIV    | privative   |
| PRO     | pro-form  |
| PROG    | progressive   |
| PROHIB  | prohibitive   |
| PROL    | prolative   |
| PROP    | proprietary   |
| PROV    | provisional   |
| PROX    | proximal  |
| PRP     | propositive sentence ender                                |
| PRS     | prospective relativizer ender                             |

---

|                |                                      |
|----------------|--------------------------------------|
| PRTT           | partitive                            |
| PURP           | purposive                            |
| Q              | question sentence ender              |
| QUOT           | quotative                            |
| R              | relativizer ender                    |
| RC             | reporting clause                     |
| RCD            | reduced noun class                   |
| REAS           | reason                               |
| REC            | recent                               |
| RECIP          | reciprocal                           |
| REDUP          | reduplicated                         |
| REF            | referential (demonstrative)          |
| REFL           | reflexive                            |
| REL            | relative                             |
| REM            | remote                               |
| REP            | reported                             |
| REPET          | repetitive                           |
| RES            | result                               |
| RESTR          | restrictive                          |
| RHET           | rhetorical                           |
| RT             | retrospective mood suffix            |
| RVS            | reverse core argument roles          |
| S              | intransitive subject                 |
| S <sub>a</sub> | ‘active’ S, marked like A            |
| SAP            | speech act participant               |
| SBD            | non-temporal subordinate verb marker |
| SBEN           | self-benefactive                     |
| SC             | supporting clause                    |
| SEQ            | sequential                           |
| SET            | setting                              |
| sg, SG         | singular                             |
| SGLTV          | singulative (of verb)                |
| SH             | subject honorific suffix             |
| SIM            | simultaneous                         |
| SLEV           | same topographical level             |
| S <sub>o</sub> | ‘stative’ S, marked like O           |
| SPEC           | specific(-indefinite)                |
| SPRX           | speaker-proximate                    |
| SR             | speech report                        |
| SS             | same subject                         |
| SSEQ           | subsequential                        |
| STAT           | stative                              |
| SU             | subject                              |

|         |  |
|---------|--|
| SUBJ    | subjunctive  |
| SUBORD  | subordinate  |
| SUBST   | substitutive   |
| SUF     | suffix   |
| TAM     | tense-aspect-mood  |
| TENT    | tentative  |
| TERM    | terminative  |
| TEST    | test   |
| TIM     | timitive   |
| TOP     | topic  |
| TR      | transitive   |
| TRANS   | translocative directional ('go and...')  |
| TRS     | transitivizer  |
| UNCERT  | uncertainty  |
| V       | verb   |
| VAI     | verb, intransitive with animate S  |
| VAI + O | verb, derivationally animate intransitive, but taking optional third person O  |
| VCC     | verbless clause complement   |
| VCS     | verbless clause subject  |
| VENT    | ventive  |
| VII     | verb, intransitive with inanimate S  |
| VOC     | vocative   |
| VTa     | verb, transitive with animate O  |
| VTI     | verb, transitive with inanimate O  |
| WOND    | wonderment   |
| X       | unspecified actor verbal inflection (one..., or unspecified actor of passives) |
| YK      | you know   |

# The Semantics of Clause Linking in Typological Perspective

R. M. W. DIXON

## 1. Introduction

This study aims to examine the different grammatical means that languages employ to represent a general set of semantic relations between clauses.

The investigation focuses on ways of combining clauses other than through relative clause and complement clause constructions. A relative clause functions as a modifier within an NP, as in the English example:

- (1) [John [who has been studying German for years]<sub>RELATIVE.CLAUSE</sub>]<sub>NP:A</sub> speaks it<sub>o</sub> well.

In a complement clause construction, one clause functions as an argument (generally as a core argument) of a higher clause, as in:

- (2) John<sub>A</sub> knows [how to speak German]<sub>COMPLEMENT.CLAUSE:O</sub>.

(For a full discussion of complementation see Dixon 2006, and the other chapters in Dixon and Aikhenvald 2006.)

Here we consider **other means** of clause combining, which span a number of types of semantic linking. Three of these describe varieties of Consequence—Cause, Result, and Purpose—illustrated for English in:

- (3) CAUSE      Because John has been studying German for years, he speaks it well.
- (4) RESULT     John has been studying German for years, thus he speaks it well.
- (5) PURPOSE    John has been studying German for years, in order that he should speak it well.

TABLE 1. Semantic types of clause linking

|                                | LINKING TYPE   | exemplified by markers in English, with information on whether each marks Supporting clause [SC] or Focal clause [FC] |
|--------------------------------|--|---|
| I<br>Is<br>Ir<br>Ic            | Temporal<br>Temporal succession<br>Relative time<br>Conditional                  | and, then, and then [all FC]<br>after, before, when, since, until, while [all SC]<br>if [SC] (... then [FC])          |
| II<br>IIc<br>IIr<br>IIp        | Consequence<br>Cause<br>Result<br>Purpose  | because [SC], therefore [FC]<br>(and) so [FC]<br>in order that, (in order) (for) to [both FC]                         |
| III                            | Possible consequence   | in case, lest [SC]  |
| IV<br>IVu<br>IVs<br>IVe<br>IVc | Addition<br>Unordered addition<br>Same-event addition<br>Elaboration<br>Contrast | and [no SC/FC distinction]<br>and, moreover [both FC]<br><apposition> [2nd clause is FC]<br>but [FC], although [SC]   |
| V<br>Vd<br>Vr<br>Vs            | Alternatives<br>Disjunction<br>Rejection<br>Suggestion                           | or [no SC/FC distinction]<br>instead of [SC]<br>rather than [SC]  |
| VI<br>VIr<br>VIh               | Manner<br>Real<br>Hypothetical   | like, in the way that [both SC]<br>as if (, like) [both SC]   |

In preparing this chapter, I have taken full account of previous literature on the topic, including, among many others, Matthiessen and Thompson (1988). However the semantic approach put forward here is basically original.

## 2. The principles involved

Syntactic descriptions of languages provide a grammatical analysis of clause types. The chapters in this volume add a further dimension, that of semantics. A basic list of the semantic relations between clauses that will be studied is in Table 1, here exemplified by markers from English. (Some notes on clause linking in English are in §6.)

Linkages generally involve two clauses. For most kinds of linking, we can identify, on semantic grounds, a Focal clause and a Supporting clause:

- One clause refers to the central activity or state of the biclausal linking; this is the **Focal clause** (FC).
- Attached to it there will be a **Supporting clause** (SC), which may set out the temporal milieu for the Focal clause, or specify a condition or presupposition for it or a preliminary statement of it, etc.

There may, in some cases, be more than one Supporting clause—a kind of ‘Supporting clause complex’. For pedagogic simplicity, the clause linkings illustrated here all have just one Supporting clause.

The Focal clause/Supporting clause distinction is not applicable for a Disjunction linking (marked by ‘or’)—see §4.7—or for Unordered addition (one of the several linking types marked by *and* in English)—see §4.5. It should be appropriate for other varieties of linking.

There is likely to be a grammatical marker attached to one of the clauses (in most cases, not to both) indicating the type of linking involved:

marker attached to Supporting clause—Ms  
marker attached to Focal clause—Mf

In a language like English, with scant morphology, markers are likely to be syntactic elements. For example, two of the ways of marking a semantic linking of Contrast are illustrated in:

- |     | Ms       | SC                                       | Mf  | FC                         |
|-----|----------|--|-----|----------------------------|
| (6) | Although | John has been studying German for years, | —   | he does not speak it well. |
| (7) | —        | John has been studying German for years, | but | he does not speak it well. |

The order of clauses may be reversed in (6), with suitable anaphoric adjustments, giving (8). However, the order is invariable in (7); that is, one cannot say (9):

- |     | Mf   | FC                               | Ms       | SC                                 |
|-----|------|----------------------------------|----------|------------------------------------|
| (8) |      | John does not speak German well, | although | he has been studying it for years. |
| (9) | *But | John does not speak German well  |          | he has been studying it for years. |

Note that this study deals only with clause linking. Some of the markers of clause linking may have other roles in the grammar (as, for example, *but* may link adjectives as in *She was poor but honest*, or NPs as in *She was a good wife*

*but a poor mother*); these lie outside the scope proper of the present discussion, but may be briefly mentioned in individual chapters.

A central part of our enquiry concerns the correlation between semantic and syntactic analyses. In syntax we recognize a division between Main clause (MC), which can stand alone as a complete sentence, and types of Non-main clause, which must be joined to a Main clause. How do Focal clause and Supporting clause, at the semantic level, relate to Main clause and Non-main clause, at the syntactic level? In many instances, FC and MC do coincide, as in the Temporal Linkage at (10) and the Conditional one at (11):

SUPPORTING CLAUSE = NON-MAIN CLAUSE    FOCAL CLAUSE = MAIN  
CLAUSE

(10) After John had been studying German      he could speak it well.  
for years,

(11) If John studies German for years,              he will be able to speak it  
well.

(It is, of course, necessary for the anaphoric pronouns to be replaced by their antecedent for the MC to function as a self-contained sentence.)

However, the semantic Focal clause is sometimes the syntactic Non-main clause. We can return to the three varieties of Consequence linking: Cause in (3), Result in (4), and Purpose in (5):

SUPPORTING CLAUSE = NON-MAIN CLAUSE    FOCAL CLAUSE = MAIN  
CLAUSE

(3') Because John has been studying              he speaks it well.  
German for years,

SUPPORTING CLAUSE = MAIN CLAUSE              FOCAL CLAUSE = NON-MAIN  
CLAUSE

(4') John has been studying German for years,    thus he speaks it well.

(5') John has been studying German for years,    in order that he should  
speak it well.

These three subtypes of Consequence linking are essentially describing the same semantic association between events; for each the Focal clause, describing the central activity, is *John speaks/should speak German well*. But the diverse ways in which the semantic linkages relate to grammar involves the Focal clause being syntactic Main clause for Cause, in (3'), while the Supporting clause is Main clause for Reason, in (4'), and for Purpose, in (5').

A similar situation prevails for the variant ways of expressing a Contrast linkage in (6–7):

|      |   |                                |
|------|---|--------------------------------|
|      | SUPPORTING CLAUSE = NON-MAIN CLAUSE               | FOCAL CLAUSE = MAIN CLAUSE     |
| (6') | Although John has been studying German for years, | he does not speak it well.     |
|      | SUPPORTING CLAUSE = MAIN CLAUSE                   | FOCAL CLAUSE = NON-MAIN CLAUSE |
| (7') | John has been studying German for years,          | but he does not speak it well. |

In each sentence, *John does not speak German well* is the Focal clause; at the syntactic level it is Main clause in (6') but Non-main clause in (7')

Table 2 sets out criteria for recognizing which clause is Supporting and which is Focal for each type of linkage. In some cases the criterion would be expected to apply without exception. For example, in Conditional linkage, the clause showing the result, if the condition is satisfied, would be likely to be the Focal clause. Some of the kinds of linking where semantic Focal clause would not be syntactic Main clause are likely to show variation on the principles set out in Table 2. Several of the studies in this volume have commented on this with respect to Purpose linkage.

In the examples which follow, the [Supporting clause]<sub>sc</sub> is shown in this way, with the Focal clause being left unmarked.

### 2.1. Markers of semantic linking

As mentioned before, markers of clause linking in English are typically syntactic elements, such as *but*, *although*, *and*, *however*, *so that*. In languages with a richer morphology, some kinds of linking may be marked by affixes. For instance, in Tariana (Arawak family; Aikhenvald 2006b: 5):

- (12) [hemari-da                      phita    pi-nu]<sub>sc</sub>  
 abiu.fruit-CL:ROUND    2sg:get    2sg-come  
 wa-ñha-karu-da  
 1pl-eat-PURPOSIVE.VISUAL-CL:ROUND  
 Bring an abiu fruit for us to eat (here and now, we can see it).

Here the semantic Focal clause (which is a non-main clause grammatically), *wa-ñha-karu-da*, of this Purpose linking, is marked just by the suffix *-karu*, indicating 'visual or immediate purposive'. It is followed by a classifier (*-da* 'round object') agreeing with that on the O argument. (There is a further suffix *-hyu*, 'non-visual or distant purposive'; see Aikhenvald 2003: 393.)



TABLE 2. Summary of criteria for deciding which clause is Supporting clause (SC) and which is Focal clause (FC) in each linking type

|                   | LINKING TYPE                                    | SUPPORTING CLAUSE   | FOCAL CLAUSE   |
|-------------------|---|---|--|
| Is<br>Ir          | Temporal succession<br>Relative time            | First clause<br>Clause indicating relative time (marked by <i>before</i> , <i>when</i> , <i>while</i> , etc. in English)  | Second clause in sequence<br>Clause with respect to which the SC provides temporal perspective   |
| Ic                | Conditional                                     | Clause indicating condition   | Clause showing result if condition is satisfied  |
| IIC               | Consequence                                     | Clause showing cause (or reason)  | Clause showing result or purpose   |
| III               | Possible consequence                            | Clause showing possible consequence   | Clause showing what is to be done or not done to either avoid or make happen the possible consequence  |
| IVs<br>IVe<br>IVc | Same-event addition<br>Elaboration<br>Contrast  | Clause which describes an aspect of the event which follows from that described by FC<br>First clause, with limited information<br>Clause with one piece of information | Clause which details main aspect of event, which determines what is described by SC<br>Second clause, with fuller information<br>Clause with another piece of information, which contrasts with that of the SC and may be surprising in view of it |
| Vr<br>Vs          | Rejection alternative<br>Suggestion alternative | What is rejected<br>What is discarded in favour of suggestion   | What is done in place of rejection<br>What is suggested  |
| VI                | Manner  | What the main event or state is similar to, or hypothetically the result of   | Main event or state  |

*Note:* Note that no distinction between Supporting clause and Focal clause is appropriate for IVu, Unordered addition, or for Vd, Disjunction.

Some varieties of linking may be indicated by using a particular construction type. In (13), from Dulong-Rawang (Tibeto-Burman, LaPolla 2006: 9), the Supporting clause of the Result linking is marked as such by being nominalized, followed by topic marker  $n\bar{\phi}$ :

- (13) [àng dī-wē                       $n\bar{\phi}$ ]<sub>sc</sub>                      ngà mv-dī-ng  
       3sg    go-NOMINALIZER    TOPIC.MARKER    1sg    NEGATIVE-go-1sg  
       He's going (lit., his going), [so] I'm not going (that is: if he's going  
       I don't need to go).

In a few languages, a relative clause may have secondary function for one or more of the types of clause linking set out in Table 1. For example, the translation of 'If a man is hit in the hollow at the back of the neck he will die' in Dyirbal (Australian area; Dixon 1972: 363) is:

- (14) bayi                      yara rudu [balga-ŋu]<sub>RELATIVE.CLAUSE</sub> guyibi-ñ  
       THERE:MASCULINE man hollow hit-RELATIVE                      die-FUTURE  
       Literally: A man, who has been hit in the hollow at the back of the neck,  
       will die.

Here *bayi yara rudu* 'hollow at the back of a man's neck' (with inalienable possession shown by apposing *rudu* 'hollow at the back of the neck' to *yara* 'man') is the O argument for transitive verb *balga-* 'hit' in the relative clause, and *bayi yara* 'man' is the S argument for the intransitive main verb *guyibi-* 'die' (in the Focal clause).

Various kinds of linking may be shown just by apposition of two clauses, with a characteristic intonation tune showing the connection between them. This can be found in a straightforward temporal sequence 'He called her, [and] she came' and in a non-temporal linking such as the following from Vinitiri (Austronesian, Van Der Mark 2006: 5):

- (15) a                      ləma                      i                      gə                      tavuə,                      a                      vudu                      i  
       MARKER    coconut    3sg    PAST    grow    MARKER    banana    3sg  
       gə                      tavuə  
       PAST    grow  
       Coconuts grew [and] bananas grew.

In a number of languages, speech reports—which do not presuppose a speech act—are employed in a clause linking construction. For example, the translation of Cause linking 'They are fighting because of a man' into Manambu is given at (28) in Chapter 5 as:

- (16) ['du-a-k'                      wa-ku]<sub>sc</sub>,                      warya-dana  
       man-LINKER-DATIVE    say-COMPLETIVE:SAME.SUBJECT    fight:come-3pl.3sgO  
       Literally: Saying 'for man', they fight.

Four of the chapters in this volume describe speech reports as clause linking devices—Chapters 3 on Galo, 4 on Kham, 5 on Manambu, and 7 on Aguaruna. They variously cover Temporal, Consequence, and Possible Consequence types of linking. There is further discussion of how speech reports may be used for clause linking in §3.3 of Chapter 16.

Some languages have what can be called a 'bridging device' whereby the last part of one sentence is summarized at the beginning of the next, as an aid to discourse continuity. For example the textual extract from Konso at (9) in Chapter 14 includes 'Then when this milk made the children grow, the aunt was fed up with them. **After she was fed up with them**, she took the cow and gave it to them.' In some instances a bridging device could be regarded as a clause linker; or it may just serve to link sentences in a discourse (and might in time develop into a marker of clause linking). (Such devices have been accorded the potentially misleading label 'tail-head linkage'—see, among many other sources, Longacre 1968(1): 8–9; 1983: 9 and Thompson and Longacre 1985: 209–10, de Vries 2005—or else 'head-tail linkage'.)

### 3. Methodology

Chapters in this volume constitute a pilot project on the semantics of clause linking. The basic ideas were first presented as a Local Workshop at the Research Centre for Linguistic Typology which ran from 15 February until 15 November 2006. Following presentation of a very early version of this chapter, there were 33 half-hour presentations from a total of 30 scholars on languages for which they have undertaken intensive fieldwork. The 'position paper' was thoroughly revised and circulated—in October 2006—to the invited participants for the August 2007 International Workshop from which this volume results. Each participant has undertaken an in-depth study of the language they deal with. The present chapter was once more thoroughly revised after that workshop.

The methodology followed was as follows. Each linguist presented an outline of the grammatical structure of their language, and a detailed description of the grammar of clause linking. They then related these grammatical construction types to the types of semantic linking presented in Table 1. Attention was paid to the grammatical marking for each linkage type, the relation between syntactic Main and Non-main clauses and semantic Focal

and Supporting clauses, and so on. Ordering constraints and preferences at both syntactic and semantic levels were also explored.

The focus of this study is not on complement clause or relative clause constructions. However, in a number of languages some of the sorts of semantic linking listed in Table 1 are achieved through a relative clause construction—as in (14)—or a complement clause construction, which are therefore included in the exposition.

Authors then noted which types of semantic linking from Table 1 had not thus far been identified, and investigated whether—and how—these might be conveyed. In some instances it proved possible to come up with some grammatical expression but this would very seldom feature in natural speech (although it could be elicited). Where this occurred, the author includes a brief note about the possibility of expression and concerning its textual rarity.

It became clear that a number of the kinds of linking listed in Table 1 are very common, and almost certainly universal—Temporal, Consequence, and (some subtypes of) Addition. Others appear to be recognizable for only some languages—Possible consequence, Alternatives, and Manner.

In §4 there is a general discussion of the various sorts of clause linking (from Table 1). This is followed, in §5, by a conspectus of overarching and recurrent features; §6 provides discussion of clause linkings in English, as a partial sample of analysis. Finally, §7 is a brief introduction to the fourteen chapters which follow, together with the rationale for the organization of the volume. Chapter 16—‘Semantics and grammar in clause linking’ by Alexandra Y. Aikhenvald—draws together further strands from across the volume.

## 4. Semantic types of clause linking

### 4.1. *Temporal (I)*

There are two basic types of Temporal linking:

**IS, TEMPORAL SUCCESSION.** Two clauses occurring one after the other in a sentence indicate that the actions or states they describe happened in that iconic order: ‘X, and following after X, Y’. This is shown in English by marker *and* or *then* or *and then* with the Focal clause, as in:

- (17) [John lent his car to me]<sub>sc</sub> and/then/and then Mary complained about it.

In English *and* is typically used to indicate temporal sequence but is not restricted to this (see Addition under §4.5 and §6.4). Many languages show temporal succession simply by apposition—if clause Y immediately follows clause X, it is to be inferred that the action or state described by Y follows that described by X. (There is further discussion of iconicity in §5.)

**It, RELATIVE TIME.** Here the Supporting clause serves to place the event or state of the Focal clause in temporal perspective. Two parameters are involved:

- whether reference is to a point in time or a length of time;
- whether the Supporting clause refers to something which is in the past, in the future, or at the same time as that referred to in the Focal clause.

Table 3 illustrates the parameters with markers from English—*after*, *before*, *when*, *since*, *until*, and *while* (these all mark the Supporting clause). Example sentences for point in time are:

- (18) John was worried [before the exam results were announced]<sub>sc</sub>.  
(19) John was delighted [when the exam results were announced]<sub>sc</sub>.  
(20) John was happy [after the exam results were announced]<sub>sc</sub>.

Length of time linkages are exemplified in:

- (21) John has been worried [since he took the exam]<sub>sc</sub>.  
(22) John was worried [until the exam results were announced]<sub>sc</sub>.  
(23) John was worried [while the exam was being marked]<sub>sc</sub>.

*While* is ‘time during’. For *until*, the two end points of the period of time should really be specified, as in:

- (22′) John was worried [from the time he took the exam until the results were announced]<sub>sc</sub>.

The ‘from’ component is often omitted, as in (22), since it can here be inferred. For *since* the end point of the length of time must be ‘now’, the time of utterance of the sentence.

In (18–23) the Focal clause describes a state, naturally extending in time. It could instead refer to a punctual action. For the ‘point time’ linkers—*after*, *before*, and *when*—we get the straightforward:

TABLE 3. Parameters for temporal linking, with illustration from English

| TIME OF SUPPORTING CLAUSE WITH RESPECT TO TIME OF FOCAL CLAUSE |               |              |                |
|--|---------------|--------------|----------------|
| PAST   | FUTURE        | SAME TIME    |                |
| <i>after</i>   | <i>before</i> | <i>when</i>  | POINT IN TIME  |
| <i>since</i>   | <i>until</i>  | <i>while</i> | LENGTH OF TIME |

- (24) John bought a car [before the exam results were announced]<sub>sc</sub> (that is, at some time before).
- (25) John bought a car [when the exam results were announced]<sub>sc</sub> (as soon as this happened).
- (26) John bought a car [after the exam results were announced]<sub>sc</sub> (at some time after).

With the 'length of time' markers *since* and *while* we can get:

- (27) John has bought a car [since the exam results were announced]<sub>sc</sub> (that is, at some point during the period of time from the announcement to now).
- (28) John bought a car [while the exam was being marked]<sub>sc</sub> (at some point during that period of time).

Interestingly, there is no parallel sentence with *until*; one cannot say \**John bought a car until the exam results were announced*. A Supporting clause marked by *until* requires a Focal clause describing some state or activity that applies over the specified period of time. One can say:

- (29) John kept buying and selling cars [(from the time he took the exam) until the exam results were announced]<sub>sc</sub> (but has now stopped doing so).

It will be observed that Table 3 is not as tidy as it seems. *Since X* may mean 'all through the time period from X to now' or 'at some point between X and now', where (*from X*) *until Y* can only mean 'all through the time period from X to Y'.

Other languages show variation on the scheme set out in Table 3. Rather than the time event of the Focal clause being included within the time span referred to by the Supporting clause, as in (27–8), they could overlap:

TIME OF EVENT/STATE REFERRED TO BY SUPPORTING CLAUSE

TIME OF EVENT/STATE REFERRED TO BY FOCAL CLAUSE

In Manambu, the cotemporaneous suffix *-ta:y* can indicate such a temporal overlap; see (6) in Chapter 5.

We can now turn our attention to the way in which Temporal linkings are indicated. As mentioned above, Temporal succession may be shown just by placing the Supporting clause and the Focal clause—always in that order—in apposition within one intonation group. A marker may be preposed to the Focal clause, as *and*, *then*, and *and then* are in English. The marker for



(and also for ‘if’) linkage. (Aikhenvald 2008 provides a comprehensive study of this phenomenon.)

Similarly, allative, ‘direction to/towards’, may mark ‘before’ or ‘until’; in Iquito (Chapter 6), allative case indicates a ‘just before’ linkage. And locative, ‘at’, may extend its meaning to ‘when’ or ‘while’; this is found in Martuthunira, Iquito, Kham, and Galo (Chapter 3). It can be illustrated by repeating here example (12) in Kham from Chapter 4:

- (31) [ŋa-pā:-zya-kə]<sub>sc</sub>                      zə,                      hu-ke  
 1sg-speak-CONTINUOUS-LOCATIVE    EMPHATIC    come-PERFECTIVE  
 While I was speaking, he came.

- (e) A marker of Relative time clause linking may be based on an orientation term. ‘Before’ is expressed by ‘(in) front’ in Iquito, Konso (Chapter 14) and Korean (Chapter 12), while ‘after’ involves ‘behind’ or ‘back’ in Konso, Korean, and Galo.
- (f) An adverb within the Supporting clause may effectively indicate a Temporal linking with a following clause (the two clauses making up one intonation unit), as in the following from Tetun Dili (Austronesian in East Timor, Hajek 2006: 7):

- (32) [nia seidauk bá toba]<sub>SC</sub>  
 3sg NOT.YET go lie.down  
 nia gusta halima tebe-tebes ho animál na'ebé  
 3sg like play REDUPLICATED-true WITH animal WHERE  
 nia hakiak  
 3sg raise  
 Before he goes to sleep, he really likes to play with the animals he looks after.

Used by itself the first clause, *nia seidauk bá toba*, would mean ‘He has not yet gone to sleep’. Linked with the following clause it indicates ‘before he goes to sleep’ (that is, ‘when he has not yet gone to sleep’).

There is a further, rather rare, variety of clause linking relating to Location. This is described in Chapter 8 for Ojibwe—see example (21) ‘So he reached the place where his friends, the soldiers, were assembled’. And in Chapter 7 for Aguaruna—see example (14) ‘Having folded his kilt and put it on, he was standing there when the jaguar suddenly arrived there’. In other languages this type of information is normally coded through a relative clause construction, as in the English sentence *I won’t build a house (in the place) where my father is*



*buried*. (Here, *in the place* may be omitted, which can tend to obscure the fact that this is, in fact, a relative clause construction.)

#### 4.2. Conditional (Ic)

There is in many languages a close association between Conditional (Ic in Table 1) and ‘when’ Temporal (Ir) clause linkings; see Chapter 14 on Konso and Chapter 13 on Goemai. Indeed, in English, *when* and *if* are interchangeable (with no substantial difference in meaning) in many circumstances, including:

- (33) [If/when it rains on a Saturday]<sub>sc</sub>, (then) Mary gets depressed.

However, when there is no temporal connection between the two clauses, only *if* may be used, as in:

- (34) [If you really like it]<sub>sc</sub>, (then) you can have it.

- (35) [If Hitler had died in 1935]<sub>sc</sub>, (then) there would have been no Holocaust.

There is generally some sort of conditional marker on the Supporting clause of a Conditional linking but only rather infrequently is this its only role. (It is the only role for *'eev'aa* ~ *'ee* ‘if’ in Fijian, Chapter 9.) For instance, the Conditional marker in English, *if*, also functions as marker of an interrogative complement clause, as in *I<sub>A</sub> don't know [if he is coming]<sub>o</sub>*. In Korean, suffix *-ketun*, in the Supporting clause, may indicate ‘if’ or ‘on the off-chance that’; see example (23) in Chapter 12. Interestingly, it is used as a conditional marker only ‘when the Focal clause denotes the speaker’s intention’.

Many languages, from all over the world, use the same marker for ‘when’ (Temporal linking) and ‘if’ (Conditional linking). In some contexts only a ‘when’ interpretation is possible, in some only an ‘if’ interpretation, and in others either. Which kind of linking is involved has, in some languages, to be inferred from the semantics and pragmatics of the discourse in which the linking appears.

In Atong (Tibeto-Burman, van Breugel 2006: 15–16) Temporal ‘when’ and Conditional ‘if’ linkings both have markers including *-ci*, which has locative meaning with an NP. The full marker for ‘when’ involves the verb of the Supporting clause bearing factitive suffix *-wa* followed by locative *-ci*. In a Conditional linking, the verb of the Supporting clause takes locative *-ci* followed by either topic suffix *-do* or emphatic *-ba*.

Some languages (particularly those in the Oceanic branch of Austronesian) use the same syntactic marker for Disjunction (‘or’)—see §4.7—and for Conditional (‘if’). For Disjunction we get two clauses linked by the ‘or/if’ marker, which comes between them, whereas for Conditional the ‘or/if’ marker precedes the Supporting clause. That is:

- (36) (a) X 'or/if' Y = X or Y DISJUNCTION  
 (b) ['or/if' X]<sub>sc</sub>, Y = if X, Y CONDITIONAL

Note that in such a language the Supporting clause (with Conditional marker) must precede the Focal clause in a Conditional linking. This is in contrast to languages which adopt a different marking technique; for instance, in (33–5) from English, the order of clauses may be reversed. The two clauses are recognized as making up a linking—for both (36a) and (36b)—through constituting one intonation unit. (This is discussed further in §4.7.)

Where a Conditional linking is shown by a syntactic marker, this is always attached to the Supporting clause. This clause may, in addition, include some further marker. For example, Toqabaqita uses marker *mada* for both Disjunction, as in (37) and Conditional, as in (38) (the latter is (12) from Chapter 10):

- (37) faka ba=e fula mad=e aqi?  
 ship THAT=3sg:NFUT arrive OR=3sg:NFUT NOT.BE.SO  
 Did the ship arrive on time or not?
- (38) [mada s=o sua-na iqa naqi]<sub>sc</sub>,  
 IF IRREALIS=2sg.NON.FUTURE touch-3.OBJECT fish THIS  
 rake-na ka boe nena  
 belly-3sg 3sg.SEQUENTIAL puff.up NON.PAST:THERE  
 If you touch this fish, its belly will puff up.

In addition to the syntactic marker *mada*, the Supporting clause of a Conditional linking must also be marked by irrealis and the Focal clause normally by sequential, as in (38).

Another example of Conditional linking being marked entirely by morphological elements comes from Jarawara (Arawá family, Brazil). The tense-modal system includes irrealis, which can have a variety of meanings including 'should be done (but hasn't been yet)', 'something that someone could do but won't' and 'something that could have happened in the past but in fact didn't'. Another term in this system is hypothetical, which is used only in the Supporting clause of a Conditional linking; the Focal clause must bear the irrealis suffix. For example (Dixon 2004: 216):

- (39) [tinero<sub>o</sub> o-kihe-mene-he]<sub>sc</sub>,  
 money(m) 1sgA-have-HYPOTHETICAL(f)-DEPENDENT  
 kamisa<sub>o</sub> o-kanike-hene ama o-ke  
 shirt(f) 1sgA-buy-IRREALIS(f) EXTENDED 1sg-DECLARATIVE(f)  
 If I had money, I would buy a shirt.

It was mentioned in §4.1 that affixes which bear locational meaning when used with an NP may serve as marker of a Temporal linking between clauses, and we noted above that some markers can mean both ‘when’ and ‘if’. Unsurprisingly, there are instances of locational affixes being used for Conditional as well as for Temporal linkings. For example, in Kham suffix *-kin* indicates ‘away from’ with an NP, ‘after’ or ‘since’ with a nominalized verb, and ‘if’ with a non-nominalized verb (Chapter 4). In another Tibeto-Burman language, Dulong-Rawang, *kəni* is an ablative postposition ‘from’ with NPs and also functions as a marker of both ‘after’ and ‘before’ Temporal and ‘if’ Conditional clause linkings (LaPolla 2006: 11–13).

As with Temporal linkings, Conditional can be shown simply by the Supporting clause being a certain construction type. This was illustrated by the relative clause construction in Dyirbal, at (14). Or the Conditional linking can be shown just by two clauses, with appropriate meanings, being placed in apposition within one intonation unit, something like ‘You don’t have a place to sleep, you can stay with us’.

It is useful to distinguish between two varieties of Conditional linking:

- Possible conditional. It is possible that the condition (set out in the Supporting clause) could be met, and then the event described by the Focal clause would eventuate. For example, (33) and:

(40) If you come this afternoon, we’ll write the report together.

- Counterfactual conditional. This describes a condition which might have been met in the past but wasn’t; if it had been, the event described by the Focal clause could have happened. For example, (35) and *If you had come yesterday, we could have written the report together.*

Some languages have grammatical means only for showing a Possible conditional. In others, the same grammatical scheme is used for both Possible and Counterfactual. But in a number of languages different techniques are employed for the two varieties. For example, Manambu marks just the Supporting clause as irrealis for Possible conditional but both Supporting and Focal clauses as irrealis for a Counterfactual conditional linking. In Kham (Chapter 4) the elative suffix *-kin* is added directly to a verb for Possible conditional, but for Counterfactual conditional it is added to *ta-* ‘be, become’, with the lexical verb being nominalized.

In a Conditional construction, the Supporting clause refers to a condition and the Focal clause to what will result if the condition is fulfilled. Quite naturally, the Focal clause may be marked as a Result, in addition to the Conditional marking on the Supporting clause. This applies to English—the

Result marker *then* may optionally be included in the Focal clause, as shown in (33–5). A similar marking is found in a fair number of other languages, including Mali and Fijian (see Chapters 15 and 9).

#### 4.3. Consequence (II)

In the next variety of clause linking, what is described by the Focal clause is a consequence of what is described by the Supporting clause. As a first approximation, there are three subtypes of Consequence linking (a more sophisticated account is put forward in §6.2, for English).

- CAUSE. The Supporting clause refers to the reason for the state or activity described by the Focal clause.
- RESULT. The Focal clause describes a natural consequence of what is described by the Supporting clause.
- PURPOSE. The Supporting clause describes what was done, volitionally, to ensure that the event or state of the Focal clause should take place.

These were exemplified in (3–5), which can be repeated here:

|     |         | SUPPORTING CLAUSE                                | FOCAL CLAUSE                           |
|-----|---------|--|--|
| (3) | CAUSE   | Because John has been studying German for years, | he speaks it well.                     |
| (4) | RESULT  | John has been studying German for years,         | thus he speaks it well.                |
| (5) | PURPOSE | John has been studying German for years,         | in order that he should speak it well. |

The Focal clause is essentially the same for all three varieties, describing the consequence—*he speaks it well* or *he should speak it well*. In summary:

|      |         |                     |                                     |
|------|---------|---------------------|-------------------------------------|
| (41) |         | SUPPORTING CLAUSE   | FOCAL CLAUSE                        |
|      | CAUSE   | reason              | consequence                         |
|      | RESULT  | lead-up             | natural (or unintended) consequence |
|      | PURPOSE | volitional activity | deliberate consequence              |

A Result linking may be restated in terms of Cause, and so may a Purpose linking. Cause and Result statements of the same basic relation of Consequence are:

- (42) CAUSE [Because the terrorists divulged their plans]<sub>sc</sub>, the police arrested them.
- (43) RESULT [The terrorists divulged their plans]<sub>sc</sub>, and accordingly the police arrested them.

The terrorists did not aim to get arrested, but their carelessness led to this result.

Cause and Purpose orientations of the same relation of Consequence are:

- (44) CAUSE [Because John took out a loan]<sub>sc</sub>, he could buy a new car.  
 (45) PURPOSE [John took out a loan]<sub>sc</sub>, (in order) to be able to buy a new car.

John deliberately took out a loan to achieve his goal, of purchasing a new car.

In the case of Conditional linking it is likely always to be the Focal clause which is grammatical main clause (with the clause marked by 'if' being the Supporting clause). Similarly for Temporal linkings, with the Supporting clause marked by 'after', 'before', 'when', 'since', 'until', 'while', or something similar. The situation is more complex for Consequence linkings; here the semantically defined Supporting clause and Focal clause may relate to grammatical main clauses and non-main clauses in different ways, both within a language and between languages. For the examples just quoted from English, it is the Focal clause of a Cause linking—as in (3), (42), and (44)—which is the grammatical main clause, but the Supporting clause of a Result or Purpose linking—as in (4–5), (43), and (45).

In some languages there are distinct construction types and markers for Cause, Result, and Purpose. In others, one marker may cover two of these.

(a) **Result and Purpose.** Many Australian languages have a verbal inflection which marks both Purpose and Result, and is the only indicator of such linkings. In Yidiñ, for example, suffix *-na* has these functions, illustrated by the Purpose linking in (46) and the Result linking in (47) (Dixon 1977: 345–6).

- (46) [ɲayu bila:-ñ dugu:-da]<sub>sc</sub>, wuna:-na  
 1sgS enter-PAST hut-LOCATIVE lie.down-PURPOSE  
 I went into the hut, in order to lie down.  
 (47) [ɲayu manga:-ñ]<sub>sc</sub>, bama:-l banji:l-da-na  
 1sgS laugh-PAST people-ERGATIVE find-COMING-RESULT  
 (I was hiding and hoping not to be discovered but then I couldn't control myself), I laughed, and as a result the people came and found me.

One can only tell whether the suffix *-na* is marking Purpose or Result, in any particular occurrence, from the meanings of the clauses that are linked and the pragmatics of the situation in which they occur.

The same marker for both Result and Purpose linkages is reported in Chapter 11 for Martuthunira, another Australian language, and in Chapter 2 for Akkadian.

In English, *so that* may mark either a Purpose linking, as in (48), or a Result linking, as in (49):

(48) [He got up early]<sub>sc</sub>, so that he should be able to catch the early train.

(49) [It rained on Saturday]<sub>sc</sub>, so that we could not hold the planned picnic.

However—as discussed in §6.2—English has many other markers of these types of linking. For example, *in order that* marks a Purpose linking, and may be substituted for *so that* in (48), but not in (49):

(50) [He got up early]<sub>sc</sub>, in order that he should be able to catch the early train.

*And so* only marks a Result linking, and may be substituted for *so that* in (49), but not in (48):

(51) [It rained on Saturday]<sub>sc</sub>, and so we could not hold the planned picnic.

(b) **Cause and Result.** In English *as a consequence* may mark the Focal clause in a Result linking, as in (52), and the related complex preposition *as a consequence of* may be followed by an ING complement clause in a Cause linking, as in (53):

(52) [John didn't lock his bicycle]<sub>sc</sub>, and as a consequence it got stolen.

(53) [As a consequence of John's not locking his bicycle]<sub>sc</sub>, it got stolen.

The same marker can be used for both Cause and Result in Korean (Chapter 12), Manambu (Chapter 5), and Aguaruna (Chapter 7). In Konso, postposition *malla* follows the Supporting clauses to indicate a Cause linkage; and follows the Focal clause for Result; see example (21) in Chapter 14.

(c) **Cause and Purpose.** In Toqabaqita, the preposition *uri-* may be used in the Supporting clause of a Cause linking, as in (54), or the Focal clause of a Purpose linking, as in (55):

(54) nau ku                      seqe-thaathala                      qasia                      naqa,  
1sg 1sg.NONFUTURE body-be.lightweight INTENSIFIER INTENSIFIER  
[uri-a                      kawi                      uqunu                      laqu                      kaa                      bii                      qoe]<sub>sc</sub>  
CAUSE-3.O 1sg.FUTURE converse ADDITIVE AND WITH 2sg  
I am very happy because I will (be able to) speak with you.

(55) [mulu                      ngali-a                      mai                      ta                      pemishen]<sub>sc</sub>,  
2pl.NONFUTURE take-3.O COMING some permission  
uri-a                      ngaa                      qoki                      ngali-a                      karango kamiliqa?  
PURPOSE-3.O HESITATION 2sg.FUTURE take-3.O shellfish 1pl.exc  
Did you bring permission to collect (lit. take) our shellfish?

Whether the linker is marking Cause or Purpose would be determined by semantic/pragmatic factors. Note that there are also prepositions *suli-*, marking Cause but not Purpose, and *fasi-*, marking Purpose but not Cause. (These examples are from Lichtenberk 2006: 7, 9; see further examples and discussion in Chapter 10.) In Galo, there is a speech report construction which ‘takes on a flavour of *both* purpose *and* cause’—see example (26) in Chapter 3.

We can now briefly survey each of the subtypes of Consequence marking. (There is further discussion of the interrelations between Cause and Result, and their markings, in the remarks on English, in §6.2.)

**IIc, CAUSE.** In a fair number of languages the same marker is used for ‘when’ Temporal and for ‘because’ Cause linkings, the ambiguity being resolved by context. Sometimes only a ‘when’ interpretation is possible, sometimes only a ‘because’ one, in other instances either. In a Jarawara story, we find (Dixon 2004: 611):

- (56) [farina wata-ri jaa]<sub>SC</sub>  
 flour exist-NEGATIVE:NOMINALIZATION WHEN/BECAUSE  
 ijawa jaa mee otaa ka-kaba  
 manioc.meal WITH 3plO 1pl.exCA REDUPLICATED-eat  
 to-ha-hamaro mee  
 AWAY-AUXILIARY-FAR.PAST.EYEWITNESS(f) 3pl  
 ama-ni  
 EXTENT-BACKGROUNDING(f)  
 When/because there was no flour, we would eat them (the fish) with  
 manioc meal.

This sentence should be regarded as basically showing a Temporal linking, with an overtone of Causal consequence—that is ‘when (at this time in the past), there was no flour, for that reason, ...’ Fijian (Chapter 9) and Manambu (Chapter 5) are further languages in which ‘when’ and ‘because’ are shown by the same marker; grammatical and discourse context will indicate which reading is appropriate in each instance of use.

We noted that in some languages ‘when’ and ‘if’ are marked in the same way and that in some ‘when’ and ‘because’ are. These can go together—there is one marker which can be used for ‘when’, ‘after’, ‘because’, and ‘if’ in Warekena (Arawak family; Aikhenvald 1998: 279–82; 2006a), and also in Jarawara (Dixon 2004: 494–6).

In some languages a marker of clause linking may be glossed either as ‘after’ or ‘because’; for example: ‘After/because his wife cuckolded him, John changed his will.’ In English, *since* may have either a Temporal sense (*since*

(57) [Since John got fired]<sub>SC</sub> he has been stealing.

(57') [Because John got fired]<sub>SC</sub> he has been stealing.

(57'') [During the period of time which began when John got fired]<sub>SC</sub>, he has been stealing.

In Korean, the suffix *-ese* can mark both Temporal and Cause linking, very much like *since* in English; see Chapter 12. In Akkadian *ištu* has the temporal meaning ‘since’ and its emphatic form *ištūma* has the causal sense ‘since’ (Chapter 2).

A variety of techniques are used for showing Cause. In some languages, a noun ‘cause’ or ‘reason’ is employed, something like ‘X for that reason Y’. Or a speech report construction may be used, as illustrated by (16) above in Manambu. A further method involves morphological marking. In Trio (Carib family, Carlin 2004: 211–12; 2006: 11), the Supporting clause is nominalized and then bears nominal past tense suffix *-hpë* followed by instrumental *-ke*, as in:

- (58) tarëno-me=pa ee-se-wa  
 person-FACSIMILE=CYCLIC be-NON.FINITE-NEG  
 t-ee-se,  
 COREFERENTIAL-be-NON.FINITE  
 [munu aame-hpë-ke  
 blood 3.POSSESSIVE.taste.NOMINALIZER-PAST-INSTRUMENTAL  
 i-ja]<sub>SC</sub>  
 3-GOAL  
 He didn't (couldn't) change back into a human being, because he had  
 tasted blood.

Kham has a most interesting set of techniques. A Cause linking is shown by either ergative/instrumental or ablative suffix added to a nominalized verb in the Supporting clause; ergative/instrumental indicates ‘agency’ while ablative relates to ‘means’. And Purpose linkage involves genitive suffix added to the infinitive form of the verb in the Supporting clause, in association with relator (with ablative marking) *jū:ni* ‘for the sake of’. See (25a/b) and (26) in Chapter 4.



**IIr, RESULT.** This may be shown simply by the apposition of Supporting clause and Focal clause, within one intonation unit. Or the Supporting clause may be nominalized, as illustrated by (13) from Dulong-Rawang. Matses (Fleck 2006) uses ‘adverbializing suffix’ *-shun* to indicate Result—‘He got mad and then hit her’ is, literally, ‘After he got mad, he hit her.’

Many languages use a syntactic marker for Result linking, and this is often analyzable—‘for that reason’ in Trio, ‘this is why it is’ in Manambu (Chapter 5), and in Kham *həi jəi-də*, which is literally ‘thus having made’, meaning ‘that’s why’, as in (43) from Chapter 4:

- (59) [no-e                      u-juhkəi-na-o                      ci]<sub>sc</sub>  
          HE-ERGATIVE    3sg-trick-1sg-NOMINALIZER    COUNTER.EXPECTATION  
          həi      jəi-də                      ŋa-zyu-wo  
          THUS    make-NON.FINAL    1sg-eat-NOMINALIZER  
          He tricked me; therefore I ate (it).

**IIp, PURPOSE.** Cross-linguistically, there is more likely to be morphological marking for a Purpose than for a Cause or Result linking; it goes onto the verb of the Focal clause. In Jarawara, for example, the Intentional suffix from the tense-modal system may occur in a single-clause sentence (with the meaning ‘plan to’ or ‘need to’) or in the Focal clause of a Purpose linking—‘He came up in order to (literally, with the intention to) make friends with us’ (Dixon 2004: 211–12). As mentioned under Cause, Kham marks purpose by adding genitive suffix to the infinitive form of a verb in the Focal clause. Mali has three Purpose constructions, depending on whether or not there is an expectation that the proposed end will be achieved (Chapter 15). In Toqabaqita there are distinct positive and negative Purpose constructions (Chapter 10).

It is not unusual for there to be several purpose affixes. For example, Tariana distinguishes ‘visual or immediate’ and ‘non-visual or distant’ varieties, as illustrated in (12). It is common to find—as in Manambu—different purpose suffixes depending on whether Supporting clause and Focal clause have the same or different subjects.

A number of languages—including Konso (Chapter 14)—use dative case (which prototypically marks the recipient NP with a verb of giving) also for Purpose clause linking. Toqabaqita (Chapter 10) adopts a different strategy—the preposition *fasi-*, which has ablative meaning (‘from’) on an NP, is one of the means available for marking the Focal clause of a Purpose linking. (As illustrated in (54–5), another preposition, *uri-*, can mark either Purpose or Cause.)

Speech report constructions may be used in several kinds of clause linking; a Cause example from Manambu was illustrated in (16). In Aguaruna, if

Supporting clause and Focal clause share the same subject, a ‘medial clause construction’ is employed, with the verb of the Focal clause marked by the intentional suffix. Thus (33) from Chapter 7 is:

- (60) [wikaiŋa-kũ  
walk-SIMULTANEOUS:3.SAME.SUBJECT  
wi-u-ai]<sub>SC</sub> kuntu-na  
go-RELATIVE-COPULA.3.DECLARATIVE animal-ACCUSATIVE  
maa-tatus  
kill-INTENTIONAL:3.SAME.SUBJECT  
He went walking to kill animals (that is: He went hunting).

But if the two clauses have different subjects, a speech report construction is required, as in (32) from Chapter 7:

- (61) [iwi-ya-hi]<sub>SC</sub>  
raise.hands-REMOTE.PAST-1pl:DECLARATIVE  
tipisa-ti                                  tu-sa  
lie.down.PERFECTIVE-JUSSIVE    say-DEPENDENT:1pl:SAME.SUBJECT  
We raised our hands so that it (the truck) would stop (literally: saying  
'let it lie down').

In this example, the Supporting clause, *iwi-ya-hi*, precedes the Focal clause, which consists of a verb of speaking plus the direct speech it introduces. A speech report construction could also be used when subjects are the same, but in this circumstance the ‘medial clause construction’ is preferred.

#### 4.4. Possible consequence (III)

Many (but perhaps not all) languages have a way of marking Possible consequence—if that which is specified by the Focal clause is done or not done, then that which is specified by the Supporting clause may or may not take place. The Supporting clause event is typically unsatisfactory, with the Focal clause suggesting what should be done to avoid it. An English example is:

- (62) Keep the dog on a leash, [lest it get run over]<sub>SC</sub>.

*Lest* in English marks the Supporting clause as referring to an unwanted event. An alternative marking is *in case* (... *might*): for example, *Keep the dog on a leash, in case it might get run over*. But *in case* may refer to either an unpleasant or a welcome eventuality; for example:

- (63) Have a look along the path, [in case the Duchess might have dropped her earring there]<sub>sc</sub>.

The Focal clause in a Possible consequence linking is most often a positive imperative, as in (62–3), or a negative one, as in: *Don't let the dog off the leash, in case it might get run over*. But it can be a statement, such as *I kept the dog on the leash, lest it get run over* or *I had a look along the path, in case the Duchess might have dropped her earring there*.

In most languages the Supporting clause of a Possible consequence linking can only refer to something to be avoided. However, many Oceanic languages have a syntactic relator which also allows for a positive outcome. The relator is *den* in Vurës (Vanuatu, Hyslop 2006: 8); (64) describes an unfavorable and (65) a favorable possible consequence:

- (64) ri van,  
 2nsg:IMPERATIVE go  
 ba kōmōrōn ri ēlgor,  
 BUT 2du 2nsg:IMPERATIVE look.out  
 [den kōmōrōn a mēs]<sub>sc</sub>  
 LEST 2du nsg:NON.SPECIFIC fall  
 You (two) go, but look out, lest the two of you fall.

- (65) vōrus ten i John  
 ask try PERSONAL.ARTICLE John  
 [den nē gē=gilal]<sub>sc</sub>  
 LEST 3sg NON.COMPLETIVE=know  
 Ask John, in case he knows.

In Vurës, as in most Oceanic languages, the marker on the Supporting clause in a Possible consequence construction is monomorphemic. In contrast, Kham uses marker *mani* ‘otherwise’ which is analyzable into negator *ma*- plus ablative marker *-ni*.

Languages with a rich morphology may have a special ‘apprehensive inflection’ on the verb of the Supporting clause. For example, Yidiñ uses verbal inflection *-ji*, as in (Dixon 1977: 351):

- (66) ŋayu jaja ŋuju baja-r,  
 1sgA baby NOT leave-NON.PAST  
 [bama:-l ŋuju jili.budi:l-ji]<sub>sc</sub>  
 person-ERGATIVE NOT look.after-APPREHENSIVE  
 I won't leave the baby, in case there's no one to look after it.

Of the fourteen languages described in this volume, less than half have a dedicated marker for Possible Consequence. Like Yidiñ, the Australian language Martuthunira (Chapter 11) has a ‘lest’ verbal inflection *-wirri*. In similar fashion,

Aguaruna (Chapter 7) has an ‘apprehensive’ suffix *-(a)i*. Goemai (Chapter 13) uses a ‘lest’ particle *śà ~ śâyò*, and Kham (Chapter 4) employs *mani* ‘otherwise’ or *kəsa* ‘lest’. In Fijian (Chapter 9), the Supporting Clause of a Possible Consequence Linking is introduced by relator *dee* ‘in case’. Manambu adds dative-aversive case suffix *-Vk* to a nominalized verb. As shown in §7 of Chapter 9, Fijian is like Vurès in that its Possible Consequence construction may refer to a welcome event, although it is most often used of something which is undesirable. However, in Yidiñ, Martuthunira, Aguaruna, Goemai, and Kham, the possible consequence is always undesirable.

Some languages do not really have a Possible Consequence construction as such, but the authors of chapters below indicate how this could be said. In Konso one would use disjunctive ‘or’—see (26) ‘Give me mine or otherwise I will beat you’ in Chapter 14. (Note that English has this as an alternative means, as in *Keep the dog on a leash or it might get run over*.) In Ojibwe (Chapter 8), the adverb *gnamaa* ‘perhaps’ may be employed. (As mentioned in §4.7, in some languages including ‘perhaps’ or ‘maybe’ in each of two clauses is the only way of showing disjunction.) We find Possible Consequence expressed by negating a Purpose construction in Korean (Chapter 12). Toqabaqita uses ‘timitive’ marker *ada*, which also marks negative purpose (Chapter 10). In Iquito, Possible Consequence may be shown through a cause or purpose construction (Chapter 6). For Galo, it was possible only to elicit Possible Consequence, with a negative conditional being used (Chapter 3). Akkadian (Chapter 2) also has no special construction; general clause linker *-ma* plus negation (‘so that not’) might be employed.

Speech report constructions are also attested for Possible consequence linkings. These are used in Aguaruna and also in Manambu, as in (29) from Chapter 5:

- (67) ata      tabu-di,  
           THEN run.off-3pl  
           [‘a-di      a:s    vya-kə-dana-dian’                      wa-ku]<sub>sc</sub>  
           THAT-pl dog attack-IRREALIS-3plA-1plO say-COMPLETIVE.SAME.SUBJECT  
           Then they ran away, lest those dogs attack them (literally: saying, ‘those dogs might attack us’).

When Possible Consequence is shown in Manambu by a speech report construction, as in (67), it may refer to a welcome or unwelcome event. An alternative grammatical mechanism is to use the dative-aversive case with a nominalized verb, and this always relates to an unwelcome happening.

4.5. *Addition (IV)*

A clause link may include two pieces of information (one in each clause) which are not in a Temporal relation, or in a relation of Condition, Consequence, Possible consequence, Alternatives, or Manner. We refer to this as Addition, for which four subtypes can be recognized. Unordered addition, Same-event addition, and Elaboration will now be briefly discussed, and first illustrated for English. The fourth subtype, Contrast, is dealt with in §4.6.

**IVa, UNORDERED ADDITION.** This involves two distinct events which are semantically or pragmatically related but for which no temporal sequence is assumed. For example:

(68) Mary peeled the potatoes and John shelled the peas.

Both actions relate to the preparation of food. There is no time specification here—the potatoes may have been dealt with first, or last, or the activities may have been simultaneous or overlapping. Temporal information is not considered relevant and is not stated. (If *then* were added after *and*, it would create a statement of sequentiality.)

The clauses in an Unordered addition are of equal status and cannot be classified as Focal clause and Supporting clause. The order of clauses may be interchanged with no difference of meaning, as in:

(68') John shelled the peas and Mary peeled the potatoes.

Some languages may show Unordered addition (and sometimes also Same-event addition and Elaboration) simply by apposition of clauses, the first showing non-sentence-final intonation; this happens in Fijian (Chapter 9). A number of languages use a clause chaining construction. And it is relatively common for there to be a syntactic marker—with similar meaning and function to English *and*—used for Temporal linking ‘and then’ as well as for Unordered addition. Languages of this type include Galo, Toqabaqita, Korean, Konso, and Mali (in Chapters 3, 10, 12, 14–15). In Ojibwe (Chapter 8), the focusing particle *mii* is used for Temporal Succession and conjunction *miinwaa* (which may be related to *mii*) for Unordered addition.

However, there are languages which draw a distinction. In Vurës, for example, clauses are apposed for temporal sequence, with the conjunction *wo* ‘and’ used for Unordered addition (Hyslop 2006: 6):

(69) o                      sôm           gö=luwō                      wo   o  
COMMON.ART   money   NON.COMPLETIVE=big   AND   COMMON.ART  
gövur   atik  
house   small  
The money is big and the house is small.

In other languages, different markers are needed. Thus Akkadian (Chapter 2) uses the generic marker *-ma* for Temporal Succession, Conditional, Result, Purpose, and Contrast but requires a quite different marker, *-u*, for Unordered Addition (this is also used for combining NPs). In Manambu and Aguaruna (Chapters 5 and 7), there is little use of Unordered Addition. When two clauses are uttered in sequence, with no linker involved, they are understood to have either temporal or consequence association.

**IVb, SAME-EVENT ADDITION.** Here the two clauses describe different aspects of a single event. One can say either of:

(70) Mary came first in her race, [winning the prize]<sub>sc</sub>.

(71) Mary came first in her race, [and won the prize]<sub>sc</sub>.

By coming first it would be expected that she should automatically win the prize.

Here one clause can be recognized as Focal and the other as Supporting. Mary's winning the prize depends on her coming first in the race, not the other way around, showing that *winning the prize* in (70) and *won the prize* in (71) are the Supporting clauses. Note that, as an alternative (70), one could say:

(72) [Mary won the prize]<sub>sc</sub>, coming first in her race.

but not, corresponding to (71):

(73) \*[Mary won the prize]<sub>sc</sub>, and came first in her race.

That is, in a linking of this kind in English, when *and* is used as marker, the Focal clause must come first.

A canonical instance of Same-event Addition is (36) from Chapter 13 on Goemai—'You are together with me; (and) as for me, I am together with you.'

**IVc, ELABORATION.** Here the second clause echoes the first, adding additional information about the event or state described. For example:

(74) [John telephoned]<sub>sc</sub>, he invited us to dinner.

(75) [Mary climbed the mountain]<sub>sc</sub>, she climbed right to the top.

(76) [John has gone out]<sub>sc</sub>, he's gone to the shop for some apples.

(Sentences like these scarcely occur in formal written English. But they are used in the spoken variety, and constructions of this sort are extremely common in both informal and formal styles of most other languages.)

In these sentences, the final clause, which provides the most information, is Focal clause of the linking.

The conjunction *and* in English has a wide functional range. Very often the clauses it joins are in a Temporal linking, as in (17) and

(77) [Mary left John]<sub>sc</sub> and he went into a monastery.

It will be seen that *and* also has non-temporal use in Unordered addition and Same-event addition linkings, as in (69) and (71). However, it may not be used in an Elaboration linking. It is not permissible—save in a very colloquial style—to insert *and* into (75) or (76). One could include *and* after the comma in (74) but this would then be likely to imply a temporal sequence of events: that John did not invite us for dinner during the telephone call, but perhaps by a written invitation which arrived later.

#### 4.6. Contrast (IVc)

In this kind of clause linking, the information conveyed by the Focal clause contrasts with that provided in the Supporting clause, and may be surprising in view of it. For example:

(78) [Mary is a Methodist]<sub>sc</sub>, but her brother is a Catholic.

(79) [John is rich]<sub>sc</sub>, but he is not happy.

One might expect siblings to have the same religious affiliation, hence the surprise shown by placing *but* before the Focal clause in (78). Most people would expect that wealth should bring happiness, hence the surprise shown by *but* in (79).

Contrast is treated as a subtype of Addition since in a fair number of languages the same grammatical marker is used. Indeed, in English *and* could be substituted for *but* in (78) and (79) with the contrast shown by appropriate use of stress (indicated by '):

(78') [Mary is a Methodist]<sub>sc</sub>, and her 'brother is a Catholic.

(79') [John is rich]<sub>sc</sub>, 'and he is not happy.

In (78') *her brother* is stressed to draw attention to the contrast. An anaphoric pronoun, such as *he* in (79'), cannot be stressed so here stress goes on *and*. (In each instance, the meanings are only roughly—not perfectly—maintained. And there are, of course, other ways of showing the contrast.)

We can have a Contrast linking in which the Focal clause is simply the negation of the complement clause within the Supporting clause, as in:

(80) [John said he would come]<sub>sc</sub>, but he didn't.

Here, the speaker expected John to come (as he said he would) and is surprised when he fails to show up. It is not possible to substitute *and* for *but* in (80) without radically changing the meaning. That is, it is perfectly acceptable to say:

(81) [John said he would come]<sub>sc</sub>, and he didn't.

But this implies that John has a reputation for being unreliable and, although he said he would come, no one really expected this to eventuate. In (81) it would be normal to stress the *and* (and/or to insert *as expected* after it).

In English, a Contrast linking can have a marker attached to the Focal clause or to the Supporting clause, as in (6–7) and:

(82) [I like him]<sub>sc</sub>, but he does annoy me sometimes.

(83) [Although I like him]<sub>sc</sub>, he does annoy me sometimes.

In each of (78–80) *although* could have been inserted before the Supporting clause instead of *but* before the Focal clause (note that *although* and *but* cannot be used together). As shown for (6–7) in §2, if the Supporting clause is marked by *although*, it can either precede or follow the Focal clause, but if the Focal clause is marked by *but*, this must come last. (There are a number of other markers for Contrast, mentioned within the discussion of English, in §6.4.)

In some languages Contrast is, like other varieties of Addition, shown simply by clausal apposition with appropriate stress and intonation. Many languages do have a marker for Contrast, but utilize apposition for other kinds of Addition. (I know of none which uses clausal apposition for Contrast, but employs an explicit marker for Unordered, Same-event, or Elaboration addition.) Sometimes a single marker will be used for all kinds of Addition; it will be translated by English *and* or *but*, depending on the semantic and pragmatic circumstances.

When there is an explicit marker it is, in the great majority of languages, attached to the Focal clause, roughly corresponding to *but* in English; an example from Vurës is in (64). This applies in Iquito, Fijian, Toqabaqita, Martuthunira, Konso, and Mali (Chapters 6, 9–11, 14–15). In Fijian, the relator *ia* 'but, well, then' can be used both for Contrast and Result.

Galo provides an exception; here a 'concessive suffix' attaches to the last word of the Supporting clause, as in (31) from Chapter 3 and the following sentence from Post (2006: 9–10):



- (84) [bìì dór-tə-máa-laacìn]<sub>sc</sub>,  
 3sg CLASSIFIER:HIGH.ANIMATE-big-NEGATIVE-CONCESSIVE  
 acì=bó ñám-dùu  
 painful=ADVERBIALISER bite-IMPERFECTIVE  
 Although he (the dog) isn't big, he bites very hard.

There are some languages where either Supporting clause or Focal clause may be marked, rather like *although* and *but* in English. This applies to Aguaruna, Ojibwe, and Korean (Chapters 7, 8, and 12). And in Goemai (Chapter 13), where both markers are loans from the dominant language of the region, Hausa.

Konso has Contrast marker *maa*, as in (34) from Chapter 14:

- (85) [in deé]<sub>sc</sub> maá aré in có  
 1sg come:PERFECTIVE BUT HERE 3sg:NEGATIVE be.not  
 I came but he wasn't here.

Marker *maa* may combine two negative clauses, but the second may then interpreted as positive and the first as negative, as in:

- (86) [anti damta-n]<sub>sc</sub> maa ikayta-n jaalan-ni  
 1sg eating-1:NEGATIVE BUT drinking-1:NEGATIVE like-CONTINUATIVE  
 I don't like eating but I do like drinking.

Here the inclusion of *maa* reverses the negative marking on the Focal clause, in the context of a negative marker on the Supporting clause. (It would not be acceptable to include negation in the first clause but not the second.)

#### 4.7. Alternatives (V)

There are three subtypes of the Alternatives clause linking:

- **Vd, DISJUNCTION.** This involves symmetrical alternatives, where the clauses have equal status and could occur in either order; in English, they are joined by *or*. For instance:

- (87a) John will dance or Mary will sing.  
 (87b) Mary will sing or John will dance.

- **Vr, REJECTION.** There are two alternatives; one is rejected in favor of the other, as in:

- (88) John will dance [instead of Mary singing]<sub>sc</sub>.

- **Vs, SUGGESTION.** One of the alternatives is suggested as more suitable than the other, as in:

(89) Perhaps John should dance [rather than Mary singing]<sub>sc</sub>.

It might be appropriate to say (88) if it has been planned for Mary to sing but she is indisposed, whereas (89) could be said if it was considered more appropriate, in the circumstances, for John to dance than for Mary to sing.

For the Rejection linking in (88) and the Suggestion one in (89), it is the Supporting clauses which bear markers *instead of* and *rather than* respectively. The two clauses could occur in either order, although most frequently the Focal clause will precede. As already mentioned, in a Disjunction linking such as (87) the two clauses have equal status, and here the Supporting/Focal clause distinction is not applicable.

There are basically two varieties of disjunction:

- open disjunction: X or Y (but there is a small chance that neither may hold)
- closed disjunction: X or Y (with no further alternative possible)

English has ‘closed disjunction’. This is shown by marker *or*, which has two senses:

- exclusive closed disjunction: (either) X or Y but not both, as in *They could carry on fighting or they could lay down their arms*.
- inclusive closed disjunction: (either) X or Y or both. If one hears *At Christmas, either John eats too much or he drinks too much*, the inference would be that he might well indulge in both proclivities.

It is an interesting observation that a rather small number of languages have a grammatical marker for closed clausal disjunction. Markers of disjunction such as *or* are found in the languages of most large nations but are typically missing from the (often highly complex) grammars of small tribal groups. We can ask why. Is it the case that the latter type of language is simply lacking some fundamental mechanism of clause linking? I believe the opposite to be true. Closed disjunction (X or Y with no further alternative possible) is not an appropriate reflection of how the world works. It is an innovation of logicians, taken into some major languages and then spread into other languages through borrowing.

Use of *or* to indicate closed disjunction can provoke unreal ideas about the world, as in the following paradox. An officer tells his troops that there will be a route-march on one day of the following week. He’s not saying which day, so that it will be a surprise to them. But one soldier has studied logic. It can’t be on Saturday, he tells the others, because if we haven’t had the route-march by the end of Friday we’ll know it will have to be on Saturday and there will be no

surprise involved. And it couldn't be on Friday, since if there has been no route-march by the end of Thursday, then—knowing that it couldn't be on Saturday—it will have to be on Friday, which will again involve no surprise. And so on back through the week. Thus, by the application of logic, it would be impossible for the officer to assign the route-march for any day of the week and for it to be a surprise. In fact, though, the route-march takes place on Wednesday and is a complete surprise to every one of the men.

What we can infer from this is that the rules of logic do not apply in the real world. There can *never* be a closed disjunction, X or Y, with no further possibility open. If a chef says he'll fry fish or roast chicken on Thursday, there is always the chance that (irrespective of what he's said), he'll do neither. That's the third possibility. With the route-march, there weren't seven possibilities for when it would be held, one for each day of the week; there has to be an eighth possibility, that no route-march will be held on any day of the week. In the real world, this further alternative cannot be discounted; it creates an open disjunction.

Chinese is in one way an ideal language, since it has two markers of clausal disjunction—one for the open variety, X or Y (or something else), and the other for the closed disjunction of logicians, X or Y (and nothing else possible); see Chao (1968: 265).

As said before, relatively few languages have a construction in which two clauses are linked by a disjunctive element similar to English *or*. Instead, they may employ, in each clause, a modifier such as 'might (be)'—'The chef might fry fish or he might roast chicken on Friday' (implying that he'll *probably* do one of these things, but it is *not impossible* that he will do neither). This is one way of indicating an open disjunction.

The point is that disjunctive *or* is handy for stating rules (in a logical-type way) for a society which indulges in such niceties. When one reads *You must have a parking permit or you will be fined*, the expectation of a fine following from lack of a permit is high, but by no means 100 per cent (since bureaucratic processes can fail). Small ethnic groups have no need of such legislative practices (or of formal logic) and many of them lack anything directly corresponding to an *or* construction in English. But, as the major languages intrude into every nook of forest, field, and desert, they bring with them concepts like disjunction which speakers of newly contacted languages find it judicious to acquire. Often, *or* (or its equivalent in French, Spanish, Portuguese, Russian, etc.) is simply borrowed into the language. (Indeed, Matras 1998 shows that 'or' is one of the items most often borrowed.) Alternatively, a grammatical form from within the contacted language may have its grammatical role extended to also cover disjunction.

Several of the languages described in this volume show two varieties of disjunction. In Korean, a distinction can be made between open and closed disjunction—see (39a/b) in Chapter 12. The same applies in Goemai (Chapter 13) but here the marker for exclusive closed disjunction is borrowed from Hausa. In Iquito, *cuiquisacari* ‘or’ is used for disjunction of clauses with a shared subject; this marker is lexicalized from ‘may be’. (No information is available on what happens when the two clauses have different subjects.)

In many languages, an ‘or’ linkage may indicate either open or closed disjunction, or else just the open variety. Galo is unusual in marking only closed disjunction—see (35–6) in Chapter 3.

It appears that if a linker ‘or’ is used in only one construction type, then it will be restricted to questions. This applies in Kham (Chapter 4) and also in Aguaruna (Chapter 7), where the disjunctive marker *atsa* ‘or’ is actually the negative form of existential verb ‘be’. In Kham, disjunction of non-questions can only be achieved by placing a form ‘maybe’ in each clause. A bridging verb may be used in Aguaruna: ‘*x* [and if not *x* then] *y*’.

Oceanic languages generally do have a syntactic marker ‘or’ but it typically also bears some other function in the language. The form is *si* in Vurës and *biə* in Vinitiri; in each language it also marks ‘if’ on the Supporting clause of a Conditional linking; see (36) in §4.2. Also in Toqabaqita, *mada* can indicate ‘or’ or ‘if’, illustrated at (37–8) in §4.2. And *mada* can be used in a single-clause construction, then indicating just ‘maybe’. As mentioned above, some languages include an adverb of possibility with each of the clauses—‘He might come on Monday, he might come on Tuesday’ implies ‘He’ll probably come on Monday or Tuesday’. (This is illustrated for Dyirbal in Dixon 1972: 363–4.) It is highly likely that in Toqabaqita, *mada* originally meant just ‘maybe’ and has evolved from this in two directions—to indicate ‘or’ when placed between Supporting clause and Main clause, and ‘if’ when placed before the Supporting clause. It may be that in other languages disjunctive linker ‘or’ developed from an adverb-like form ‘perhaps’ or ‘maybe’.

Boumaa Fijian has *se* ‘or’, which also introduces an interrogative complement clause (such as ‘I don’t know [whether/if he’ll come]’ or ‘I don’t know [who came]’); there is a quite different marker for Conditional constructions, *’eeva’aa* ~ *’ee* ‘if’.

Hyslop (2006: 6–7) reports that, in Vurës, marker *si* basically indicates closed disjunction (X or Y and nothing else) but if the final clause bears rising (that is, non-sentence-final) intonation, then open disjunction may be implied (X or Y or possibly something else). She also reports that a single clause may be followed by *si* ‘or’ indicating that there is an alternative, effectively making a statement into a question. For example ‘You are staying

here *sɪ* would mean ‘Are you staying here or what?’ In Mali, *ura* may be used for all kinds of disjunction—open, inclusive closed, and exclusive closed (Chapter 15). In addition, *ura* can be added to a one-clause structure as a kind of tag, giving the utterance the illocutionary force of a (rhetorical) question. Thus ‘You are a coward *ura*’ means ‘Are you a coward?’ and (Stebbins 2005: 214–15):

- (90) da=asik            kok   mamēr   ia            ngia   mair.sēnas   ura?  
 AND=IRREALIS   just   possible   RELATOR   2sg   stand.up:PAST   OR  
 And it was impossible for you to stand, wasn’t it?

The grammar of Tetun Dili (another Austronesian language) has been much influenced by Portuguese. Disjunction marker *ou* ‘or’ was borrowed from Portuguese and is used only for closed disjunction. As in Portuguese, it occurs only between clauses. There is also the native marker *ka* ‘or’ which can be used for either closed or open disjunction and typically occurs at the end of each clause, as in (Hajek 2006: 3):

- (91) ...hanesan   basa   nia   ka,   baku   ho   sintu   ka  
               LIKE        slap   3sg   OR   beat   WITH   belt   OR  
               (If she keeps misbehaving, we can use some force) such as slapping her,  
               or beating her with a belt (or whatever).

It is likely that the marker *ka* ‘or’ is a development from adverb *karik* ‘maybe’.

When a language lacks a simple linking marker ‘or’, other grammatical devices may be used. This can involve Conditional plus negation, saying ‘If not X, then Y’ with the meaning ‘X or Y’. A number of languages have a marker ‘or’ which is used to link NPs but *not clauses*; they include Manambu (Chapter 5). In Tariana, a question may be followed by two clauses in apposition, implying disjunction: ‘What is it? X, [or] Y?’

Bariai (Austronesian; Gallagher and Baehr 2005: 133, 151–2) shows a rather unusual feature. Negation is expressed by clause-final particle *mao* ‘not’, as in:

- (92) eaba   kapei   toa    i-longo   mao  
       man   elder   GIVEN.INFORMATION   3sg-hear   NOT  
       The old man didn’t listen.

And when *mao* comes between two clauses it indicates Disjunction, as in:

- (93) gid   ga            ti-pota            annga,   mao   ti-tol            pade?  
       3pl   FUTURE   3pl-distribute   food   OR   3pl-dance   again  
       Will they serve food, or dance again?

The two other varieties of Alternatives linking—Vr, Rejection ('instead of') and Vs, Suggestion ('rather than')—are only sparsely attested in the literature. In Mali (Chapter 15), *dok.kinai* functions as marker 'instead of'; it is made up of Contrast marker *dok* 'but' and adverb *kinai* 'actually'. In other languages, 'instead' may be expressed by either a syntactic marker or else a suffix (see Chapters 2, 4–6, 8, and 12). Other languages employ some means other than clause linking; for instance, Fijian uses the verb 'replace'—see §9 of Chapter 9.

Apposition is widely used for various kinds of Alternative linking. In a number of languages a negative imperative—telling someone not to do something—is typically accompanied by a positive imperative—telling them what they should do. For example, in the Australian language Warlpiri, one might say 'Don't spear the kangaroo, leave it!' (data from Ken Hale, quoted in Dixon 1972: 112). This would be the natural translation of a Suggestion linking, 'Rather than spearing the kangaroo, leave it!'

#### 4.8. *Manner (VI)*

Two subtypes can be distinguished here,

- **VIr, REAL MANNER.** The action described by the Focal clause is done in the manner described by the Supporting clause. For example:

- (94) He shaped the boomerang, [in the way that/like his father had taught him]<sub>sc</sub>.

The Supporting clause here refers to an actual activity, how his father had taught him. Or the Focal clause can describe a state, which is similar to that reported in the Supporting clause:

- (95) Since the coup, the media has been unfettered, [in the way that/like it is in democratic nations]<sub>sc</sub>.

In each of (94) and (95) the Supporting clause may be introduced by either *in the way that* or *like*. In more metaphorical linkings, only *like* is appropriate:

- (96) He hid his money in a sock, [like a squirrel secreting nuts]<sub>sc</sub>.  
 (97) The cop bombarded me with questions, [like a boxer pummeling his punch bag]<sub>sc</sub>.

- **VIh, HYPOTHETICAL MANNER.** If the Focal clause portrays an activity, the Supporting clause may describe what it pretends to be, or what it might be (but isn't). For example:

- (98) He extended his finger within his pocket, [as if pointing a gun at her]<sub>sc</sub>.

- (99) He asked her to marry him, casually, [as if it were an everyday matter]<sub>sc</sub>.

Or the Focal clause may depict a state, with the Supporting clause then describing some imaginary event which might have given rise to the state, as in:

- (100) He felt bewildered, [as if the sky had fallen in]<sub>sc</sub>.

- (101) She was pleased with the promotion, [as if she had been given the moon]<sub>sc</sub>.

Hypothetical manner is generally shown in English by marker *as if* (or *just as if*) on the Supporting clause. However, in some speech styles *like* can be used instead. *Like* may then be the marker for all kinds of Manner linking, as exemplified by (94–101).

There is limited information available on Manner clause linking across languages. In Kham, a co-relative clause construction is used, illustrated by (31) from Chapter 4:

- (102) [kitao u-rĩ:h-wo]<sub>sc</sub>, hitao zə  
 HOW 3sg-see-NOMINALIZER LIKE.THAT EMPHATIC  
 jəi-ke-o  
 make-PERFECTIVE-3sg  
 As he saw it, so he made it.

Most typically, there is a linker glossed as ‘like (this)’ or ‘as if’. This may be realized as a suffix, or an adverb, or a relator, such as *timiak* ‘like’ in Vüres (Hyslop 2006: 11).

- (103) nē ni vas o qiat,  
 3sg 3sg:NON.SPECIFIC plant.taro COMMON.ARTICLE taro  
 [timiak i vo na=gagneg min nē]<sub>sc</sub>  
 LIKE PERSONAL.ARTICLE thing PERFECT=tell DATIVE 3sg  
 He planted the taro, like the guy told him.

Similar constructions are described in Chapters 2, 5, 6, 8, 12, 14, and 15.

Goemai shows Real manner by an adverbial clause introduced by manner proclitic *bəe=*, and Hypothetical manner through marking the Supporting clause with the comparative particle *gəebi* ‘as if’, plus consequence-clause marking. See (44) and (45) from Chapter 13, the latter repeated here:

- (104) ndè kúmá màng k’à sék  
 one/other ALSO take:singular head:singular body

|  |             |                       |       |
|--|-------------|-----------------------|-------|
| múk  | [gòebí      | ní                    | à     |
| 3singular.POSSessor  | AS.IF       | 3sg.INDEP:CONSEQUENCE | FOCUS |
| ńdòe=bì  | yì]         | sc                    |       |
| SPECIFIC:INDEF=thing   | CONSEQUENCE |                       |       |
| And another one takes himself as if he were something (special). |             |                       |       |

Other languages employ different means for indicating manner. For instance, adjective *tautauvata* ‘the same’ for Real manner and prefix *viavia-* ‘act like, try to be, imagine oneself to be’ for Hypothetical Manner in Fijian (Chapter 9), and verb *quri* ‘be like, resemble’ for both varieties of Manner in Toqabaqita (Chapter 10).

## 5. Iconicity, apposition, and ordering

Within one utterance, clauses occur in a linear order. In many cases, events and states are perceived to occur in a certain order. What more natural than that there should be an iconic relationship between the two—clause Y occurs in discourse after clause X, and describes an event or state perceived to have happened after that described by clause X.

A number of languages exploit this iconicity for various varieties of clause linking. That is, two clauses are simply apposed, without any specific marker, and are by inference taken to indicate one of the semantic types of clause linking described in this chapter. Which kind of linkage is involved will be inferable from placement of stress; from the intonation pattern; from tense, aspect, modality, mood, and similar specifications in the clauses; and from the pragmatics of discourse.

A number of the languages discussed in later chapters employ apposition for one or more types of clause linkage. A sequence of two clauses in apposition—‘X, Y’—may, according to the circumstances, be interpreted as (this list is not exhaustive):

- Is, Temporal succession, ‘X and then Y’, in Chapters 6, 9, 10, and 11.
- Ir, Relative time, ‘while/when X, Y’, in Chapter 9.
- Ic, Conditional, ‘if X, then Y’, in Chapter 13.
- II, Consequence:
  - Cause, ‘because X, Y’, in Chapter 11.
  - Result, ‘X and so Y’, in Chapters 5 and 9.

Note that in Goemai (Chapter 13), all three subtypes of Consequence may be shown by apposition.

- III, Possible Consequence—see (33) in Chapter 4.



- IV, Addition, 'X and Y'. Unordered addition or Elaboration (or both) in Chapters 4–7, 9, 10, 13, and 15.
- IVc, Contrast, 'X but Y', in Chapters 4, 5, and 13.

Interestingly, Goemai (Chapter 13) has a number of uses for apposition—Conditional, Consequence, Addition, and Contrast—but does not employ it for Temporal succession.

Then there are languages such as Korean (Chapter 12) which make very little use of apposition. There is just one common pattern, illustrated at (14) in Chapter 12, 'Would (you) like to have coffee, (or) would (you) like to have tea?'; here the first clause ends in rising and the second in falling intonation. A normal, educated style of English also makes little use of apposition. As noted in §4.5, it is employed sparingly, only for some types of addition, as in (74–6), and then mostly in a non-formal genre.

In colloquial speech one could encounter more instances of apposition. A linker could be replaced by a semicolon (indicating apposition between clauses recognized as making up one sentence on intonational criteria) in many of the English sentences quoted above. For example, a semicolon could replace *thus* in (4), *and then* in (17), and *and* in (68). The possibilities may be extended. For instance, the conditional construction *If you call round tomorrow, I'll tell you a story* could in colloquial speech be reduced to *You call round tomorrow; I'll tell you a story*. Possible consequence could also be reduced to apposition with appropriate modal and modality choices. In place of the explicit linkage construction *Keep the dog on a leash, in case it might get run over*, the same pragmatic message could be transmitted by just saying, with the appropriate degree of urgency: *Keep the dog on a leash; it might get run over*.

What might condition whether a language makes major use of apposition for clause linking? Well, there are some languages—such as Korean—which have a multiplicity of markers for showing the semantic varieties of linkage; they have no need for apposition, and scarcely use it. In a number of languages there is what we can call a 'generic' marking, which has a variety of linkage uses. Examples are *ka* in Konso, *-ma* in Akkadian, *mii* in Ojibwe, and *ma* in Toqabaqita (Chapters 14, 2, 8, and 10 respectively). These languages also make little use of apposition for clause linking.

Iconicity can be an important feature of clause linking in languages which have a goodly number of explicit markers. This particularly applies in Akkadian. In sentences such as 'before X, Y' and 'until X, Y', clauses occur in the opposite order to events they describe. There is a tendency, in such circumstances, to place the subordinate clause (which is the semantic Supporting clause) after the Main clause (the semantic Focus clause), thus re-establishing language-event iconicity. This is illustrated at (16–17) in Chapter 2.

The Relative time linkage shown by ‘after’ is attested for virtually every language that has been studied. It is, of course, similar to iconic Temporal succession. Compare ‘After X, Y’ and ‘X and then Y’. However a linkage such as ‘before X, Y’ is non-iconic, in that clause Y is enunciated after clause X although the event referred to by X happened after that referred to by Y. This lack of iconicity for a ‘before’ construction explains why a number of languages lack a ‘before’ linkage type. It is essentially missing from Fijian (Chapter 9), and is shown only by a marker which is a recent loan from Hausa in Goemai (Chapter 13). In Mali (Chapter 15), a construction with ‘first-ly)’ was offered for ‘before’.

One important question to ask concerning each type of clause linking is the order in which Supporting clause and Focal clause may or must occur. The general rule in English is that if the marker occurs on the Focal clause—as in (7)—that clause should come last, but if the marker goes on the Supporting clause—as in (6) and (6’)—the clauses may occur in either order.

In many languages, the Focal clause (which is typically the syntactic Main clause) comes last in most kinds of linkage. But there are recurrent exceptions. The most pervasive concerns Possible Consequence. In many languages where the Focal clause generally comes last, it most often comes first in a Possible Consequence construction. This applies to all of the English sentences (62–3) in §4.4. It also applies for Kham, Manambu, Aguaruna, Fijian, Martuthunira, Goemai, and Mali (Chapters 4, 5, 7, 9, 11, 13, and 15). There is a pragmatic explanation. In a warning such as *Don’t go near the fire, in case you get burnt*, it is the first, imperative clause (the semantic Focal clause) which is of paramount importance and needs to be brought to the immediate attention of the addressee. The secondary clause (here, *in case you get burnt*), which provides the reason for the warning, is of secondary importance.

Purpose constructions are also of particular interest. Similarly to Possible Consequence, these can involve the Focal clause being placed first—in Aguaruna, Goemai, and Konso (Chapters 7, 13, and 14), with pragmatic attention being directed to what is stated in the purpose clause.

The indication in Table 2 that ‘the clause showing result of purpose’ should be Focal clause was justified by comparison of (3), (4), and (5) in §4.3, illustrating the Cause, Result, and Purpose subtypes of Consequence Linking. However, some authors have suggested that, at least in some instances, the clause marked for purpose should be regarded as the Supporting clause. See discussion of (26) in Chapter 2 on Akkadian, (24–6) in Chapter 3 on Galo, (19) in Chapter 5 on Manambu, and (28–9) in Chapter 8 on Ojibwe.

In many languages, there is a preferred order for syntactic Main and Non-main clauses, and also a preferred order for semantic Focal and Supporting

clauses. There is typically a fair correlation between syntactic and semantic levels, with grammatical Main clause being semantic Focal clause for most (but not all) linkage types. What is particularly interesting is what happens when the two kinds of preference are at odds. The final paragraph of Chapter 7, on Aguaruna, discusses such a happening. ‘Subordinate clauses most commonly precede their controlling clauses, although such ordering is not always grammatically required. In most linkage types the focal clause is a Main clause; it is natural then that the typical ordering is [SC] [FC]. In purpose (IIp) and possible consequence (III) types, however, the focal clause is subordinate to the supporting clause, and in this case the preference for the focal clause to be final overrides the usual preference for a Main clause to be final.’

As has been indicated at many places in this chapter, many markers of clause linking have multiple functions. There is further discussion of this important matter in §3 of Chapter 16; see especially Table 1 there.

## 6. Clause linking in English

There are three kinds of marker for clause linking in English, each with a different grammatical status.

[1] Marker to Supporting clause, Ms, which must precede the Supporting clause. The Supporting clause may either precede or follow the Focal clause. These markers include *although*, *because*, *lest*, *when*, and *if*. *Because* is illustrated in:

(105) [Because the dean was exposed as a liar]<sub>sc</sub>, the president has fired him.

(105′) The president has fired the dean, [because he was exposed as a liar]<sub>sc</sub>.

[2] Marker to Focal clause, Mf, which must precede that clause. These have traditionally been called conjunctions; they include *and*, *then*, *but*, *so that*, and (*and*) *so*. (*And*) *so* is illustrated in:

(106) [The dean was exposed as a liar]<sub>sc</sub>, (and) so the president has fired him.

When the marker attaches to the Focal clause, this must come last. (One cannot say \*(*And*) *so the president has fired him, the dean was exposed as a liar* or (*And*) *so the president has fired the dean, he was exposed as a liar*.)

[3] Another variety of Mf may either (a) precede the Focal clause; or (b) come after its first constituent; or (c) come after the first word of the auxiliary of the Focal clause. These markers include *therefore*, *moreover*, *however*, *nevertheless*, and *accordingly*. The three positionings for *therefore* are illustrated in:

- (107a) [The dean was exposed as a liar]<sub>SC</sub>, therefore the president has fired him.
- (107b) [The dean was exposed as a liar]<sub>SC</sub>, the 'president, therefore, has fired him.
- (107c) [The dean was exposed as a liar]<sub>SC</sub>, the president 'has, therefore, fired him.

When a marker like *therefore* occurs in non-clause-initial position, the preceding word bears stress, often with contrastive meaning, as marked (by ') in (b) and (c) above. As with conjunctions, a Focal clause with a marker from this set must follow the Supporting clause.

It is hard to find a suitable label for this class of markers. They have been termed 'adverbs' but this is not a correct categorization since they have quite different grammatical properties from sentential adverbs (see Dixon 2005: 69, 390–2, 403–5). For example, a sentential adverb—such as *definitely*, *usually*, or *obviously*—typically occurs after the first word of the auxiliary. It can—in marked circumstances—be placed immediately after the first constituent of the sentence, but then the *following* word is stressed (not the *preceding* one, as happens with a marker such as *therefore*); for example:

- (108) The president definitely 'has fired him.

In Dixon (2005), I termed the *therefore* set 'contrastive linkers' but such a label might lead to confusion with the label Contrast for type IVc of clause linking. Henry Sweet (1891: 993) coined the term 'half conjunction' and this does seem appropriate.

Two clauses linked together in English generally have just one marker, either on the Supporting or on the Focal clause. It is not possible to combine markers of types [1] and [2]; that is, one cannot really say anything like \**Because the dean was exposed as a liar, (and) so the president has fired him*. However, it is possible to include two markers on the Focal clause—a conjunction of type [2] and a half conjunction of type [3]. The half conjunction may occur at any of the three positions already described:

- (109a) [The dean was exposed as a liar]<sub>SC</sub>, so therefore the president has fired him.
- (109b) [The dean was exposed as a liar]<sub>SC</sub>, so the 'president, therefore, has fired him.
- (109c) [The dean was exposed as a liar]<sub>SC</sub>, so the president 'has, therefore, fired him.

It is also possible to combine [1], an Ms, with [3], a half conjunction Mf, again at all three positions:

- (110a) [Because the dean was exposed as a liar]<sub>sc</sub>, therefore the president has fired him.
- (110b) [Because the dean was exposed as a liar]<sub>sc</sub>, the 'president, therefore, has fired him.
- (110c) [Because the dean was exposed as a liar]<sub>sc</sub>, the president 'has, therefore, fired him.

In these sentences the order of clauses cannot be reversed; that is, a Focal clause with a marker of type [2] or type [3] must follow the Supporting clause. The Supporting clause may only come last when there is no marker attached to the Focal clause.

It may be remarked that the sentences just given, which include two markers, are not wonderfully felicitous in formal style. Nevertheless, they do have a degree of acceptability.

English has a wide variety of all three types of marker, across all kinds of linking. A selection of the more important markers is in Table 4. The following subsections provide discussion of these.

### 6.1. *Temporal and conditional*

The general introduction to Temporal linkings, in §4.1, used illustrations from English. And the discussion of Conditional linking, in §4.2, showed how *when* and *if* may be substitutable as marker on the Supporting clause (with no significant difference in meaning) when there is a temporal connection between the two clauses, as in (33) and:

- (111) [When/if John pulls the trigger]<sub>sc</sub>, (then) the gun goes off.
- (112) [When/if John ignores her]<sub>sc</sub>, (then) Mary gets very upset.

In such combinations, *then* may optionally be added before the Focal clause (but only when the Focal clause comes last, not when clause order is reversed).

A *when* clause is used only for events which have a temporal connection. However, as mentioned in §4.2, *if* can be used both when a linking has a temporal basis and when it lacks this (*when* may not be used in this circumstance). For example (34–5) and:

- (113) If Beale Street could talk, (then) married men would have to pick up their beds and walk

*Unless* may often be used in place of *if* plus *not* in a general statement, or one about the future:

TABLE 4. A selection of some of the more important linking markers in English

|     | LINKING TYPE           | MARKERS WITH SUPPORTING CLAUSE                           | CONJUNCTIONS, MARKERS WITH FOCAL CLAUSE                              | HALF CONJUNCTIONS, MARKERS WITH FOCAL CLAUSE  |
|-----|------------------------|--|--|---|
| Is  | Temporal succession    |  | and<br>then<br>and then  |   |
| Ir  | Relative time          | after<br>before<br>when<br>since<br>until<br>while       |  |   |
| Ic  | Conditional            | if<br>unless   | (then)<br>(then)   |   |
| II  | Consequence            | because<br>since<br>for                                  | in order that<br>(in order) (for) to<br>so that<br>(and) so<br>so as | therefore<br>accordingly<br>thus<br>as a consequence<br>consequently<br>as a result |
| III | Possible consequence   | in case<br>lest<br>for fear that<br>because<br>or (else) |  |   |
| IVs | Same-event addition    |  | and<br>(and) besides   | moreover<br>in addition   |
| IVc | Contrast               | although<br>though<br>even though                        | but  | however<br>nevertheless<br>yet<br>still   |
| Vr  | Rejection alternative  | instead of   |  |   |
| Vs  | Suggestion alternative | rather than  |  |   |
| VIr | Real manner            | like<br>in the way that                                  |  |   |
| VIh | Hypothetical manner    | as if<br>(like)  |  |   |

Note: IVu, Unordered addition, and Vs, Disjunction, are marked by *and* and *or* between clauses. For neither of these linkage types is a Supporting clause/Focal clause distinction appropriate.

- (114) [Unless I'm singing]<sub>sc</sub>, I'm not happy.  
 (114') [If I'm not singing]<sub>sc</sub>, I'm not happy.  
 (115) [Unless you pull the trigger]<sub>sc</sub>, the gun won't go off.  
 (115') [If you don't pull the trigger]<sub>sc</sub>, the gun won't go off.  
 (116) I'll go to the party, [if Mary is not going]<sub>sc</sub>.  
 (116') I'll go to the party, [unless Mary is going]<sub>sc</sub>.

However, a counterfactual clause including both *if* and *not* may not have these replaced by *unless*, for example:

- (117) [If he hadn't married Mary]<sub>sc</sub>, he would have had a happy life.

but scarcely:

- (118) \*[Unless he had married Mary]<sub>sc</sub>, he would have had a happy life.

Note that adding *even* to *if* creates a new grammatical form, not relatable to *unless*. Consider:

- (119) I'll go to the party, even if Mary is not going.

This implies that the speaker will go whether or not Mary plans to attend (but implies they are hoping Mary will be there). It is not paraphrasable by a sentence involving *unless*.

## 6.2. Consequence

Table 4 gives some of the most frequent markers for a Consequence linking in English (there are quite a number more). In §4.3 three subtypes of Consequence linking were described: Cause, Result, and Purpose. We can now carry the investigation a little further, for English.

On semantic grounds, the following five profiles may be distinguished.

**I. Cause** (with no necessary result). Given the event or state described by the Supporting clause, there is the opportunity—but no necessity—for what is described by the Focal clause to eventuate. For example:

- (120) I do it [because I like it]<sub>sc</sub>.  
 (121) He is called Bill [because his name is William]<sub>sc</sub>.

It is not the case that people always do the things that they like to do; a sense of social responsibility or workplace requirements may lead to them doing something they dislike rather than what they like. And it is not the case that everyone whose name is William gets to be called Bill.

**II. Cause and necessary result.** The cause (shown by the Supporting clause) must lead to the result described in the Focal clause, as in:

(122) [Because it rained all day]<sub>sc</sub> they had to provide a full refund.

(123) [Because there was fog everywhere]<sub>sc</sub> we could see little.

(124) We must stop here [since it is impossible to go on]<sub>sc</sub>.

In each case there is no alternative course of action, given the stated cause, but to pursue the result given in the Focal clause.

**III. Natural result.** The result (in the Focal clause) is in a vague way a natural consequence of what is described in the Supporting clause. The Supporting clause cannot really be said to describe a cause, rather a circumstance which could give rise to this result. For example:

(125) [John had no work to do]<sub>sc</sub>, and so he went to the races.

(126) [I'm not the emotional type]<sub>sc</sub>, and so I couldn't bring myself to tell her that I love her.

What is reported in the Focal clause is here put forward as connected with what is said in the Supporting clause, but it does not depend upon it. John might have gone to the races even if he did have work to do, and people may be unable to bring themselves to say 'I love you' for one of many reasons.

**IV. Purpose.** The Supporting clause describes something done to enable what is described in the Focal clause to eventuate. For example:

(127) [The guerrillas took hostages]<sub>sc</sub> in order that their leader could bargain with the government.

(128) [The children kept quiet]<sub>sc</sub> in order that mother would be able to work on her thesis.

Here, the event described by the Focal clause is only possible by virtue of that in the Supporting clause, this being undertaken with that purpose in mind.

**V. Motion purpose.** Here the Supporting clause describes some motion which is undertaken to facilitate the event of the Focal clause, as in:

(129) [He took the cow to market]<sub>sc</sub> in order to sell it.

(130) [He took the cow to town]<sub>sc</sub> in order for the butcher to buy it.



TABLE 5. Prototypical occurrence of some Consequence markers in profiles I–V

|                     | I<br>CAUSE | II<br>CAUSE-<br>RESULT | III<br>NATURAL<br>RESULT | IV<br>PURPOSE | V<br>MOTION<br>PURPOSE |
|---------------------|------------|------------------------|--------------------------|---------------|------------------------|
| and so              | (FC)       | FC                     | FC                       | (FC)          | —                      |
| consequently        |            |                        |                          |               |                        |
| as a consequence    |            |                        |                          |               |                        |
| because             | SC         | SC                     | (SC)                     | (SC)          | —                      |
| since               |            |                        |                          |               |                        |
| therefore           | FC         | FC                     | (FC)                     | (FC)          | —                      |
| accordingly         |            |                        |                          |               |                        |
| thus                |            |                        |                          |               |                        |
| so that             | —          | FC                     | —                        | FC            | FC                     |
| (in order) that     | —          | —                      | —                        | FC            | FC                     |
| (in order) (for) to |            |                        |                          |               |                        |
| as a result         | —          | FC                     | —                        | —             | —                      |

Each marker of a Consequence linking in English may be used felicitously in just some of profiles I–V. These properties are summarized in Table 5. For each profile which a given marker may be used in, information is provided as to whether it marks Supporting clause, SC, or Focal clause, FC. Parentheses indicate that this function is possible but not wonderfully felicitous for the marker(s).

We can now look briefly at the semantic character of some of the markers.

- *(In order) (for) to* and *in order that* are used when the Supporting clause refers to an action that is purposely undertaken to facilitate the action referred to by the Focal clause. They mark the Focal clause in profiles IV, Purpose, and V, Motion purpose, illustrated by (127–30).
- *So that* has slightly wider possibilities than the *in order* markers, occurring in profiles IV, V, and also II, Cause-result; this linker may mark the Focal clause in each of (122–4) and (127–30).
- *Because* marks cause (or reason) and is prototypically used in the Supporting clause of I, Cause, and II, Cause-result, as in (120–4). It may be used, but rather less felicitously, on the Supporting clause of III, Natural result, and IV, Purpose, examples (125–8). *Therefore* occurs in the same profiles, but marks the Focal clause. *Accordingly* and *thus*, also half conjunctions, have similar possibilities to *therefore*.

- *Since* is interesting in that it can mark Temporal linking (temporal period from) and also Cause; see the discussion of (57) in §4.3. In the latter sense it shows similar possibilities to *because*, but is somewhat more limited. *Since* may be most appropriately used in its cause sense when there is also a temporal overtone, as in (124).
- *And so* marks a result and is used in the Focal clause of II, Cause-result, and III, Natural result, as in (122–6). It may also be employed—but less felicitously—in I, Cause, and IV, Purpose. The half conjunctions as a *consequence* and *consequently* show similar possibilities.
- *As a result*, another half conjunction, has quite limited use; it is used principally in the Focal clause of profile II, Cause-result. (Many dictionaries define *consequence* in terms of *result* and vice versa; they err.)

In addition to markers which link clauses in a Consequence relation, there are also the complex prepositions *because of*, *due to*, *in consequence of*, and *as a result of*. These require a following NP or an ING complement clause, as in:

- (131) Because of/due to/in consequence of/as a result of the fog everywhere, we could see little.
- (132) Because of/due to/in consequence of/as a result of there being fog everywhere, we could see little.

These are typically used in profile II, Cause-result.

There are pairs of clauses which can be interpreted in terms of more than one of the profiles. For example:

## II. CAUSE-RESULT

- (133a) [Because they sacked staff]<sub>sc</sub>, the company survived.
- (133b) [Since they sacked staff]<sub>sc</sub>, the company survived.
- (133c) [They sacked staff]<sub>sc</sub>, therefore the company survived.
- (133d) [They sacked staff]<sub>sc</sub>, and so the company survived.
- (133e) [They sacked staff]<sub>sc</sub>, so that the company survived.

## IV. PURPOSE

- (134a) [They sacked staff]<sub>sc</sub>, in order that the company might survive.
- (134b) [They sacked staff]<sub>sc</sub>, (in order) for the company to survive.
- (134c) [They sacked staff]<sub>sc</sub>, so that the company might survive.

In (133a–e) the statement made by the sentence is that once staff were sacked, then the result of the company's survival necessarily followed. In (134a–c) the statement is that they sacked staff with the purpose that the company should survive (it cannot definitely be inferred that after this

measure the company did in fact survive). Note that *so that* features in both paradigms—in (133e) it occurs in a past tense clause, describing an actual result whereas in (134c) it occurs with the modal *might* describing what the purpose was of the sacking.

The examples quoted show that there is a commonality between the various varieties of Consequence linking. It is always the cause—or, in IV and V, the purposeful activity aimed at achieving a result—which is coded by the Supporting clause, and the actual or possible or projected result which is described by the Focal clause. It will be seen that sometimes the Focal clause is the grammatical main clause with the Supporting clause being a non-main clause; and sometimes the reverse.

I have tried to characterize the most prototypical uses of the main Consequence markers in English. They do have extended uses, which may be encountered in conversation but would be likely to be adjusted if speakers were asked to reflect, or to produce a written document.

And there are more markers besides. For example, *so as* may be used in profile IV. It is often (but not necessarily) followed by a negative Focal clause, as in [*He got up early*]<sub>sc</sub> *so as not to miss the sunrise*.

*For* may also be used as a Consequence marker with a Supporting clause (which must then follow the Focal clause) in profiles II, Cause-result, and III, Natural result:

(135) We could see little, [*for there was fog everywhere*]<sub>sc</sub>.

(136) John went to the races, [*for he had no work to do*]<sub>sc</sub>.

This use of *for* is decidedly archaic.

### 6.3. Possible consequence

As shown in §4.4, a Possible consequence linking is shown in English by marker *in case* or *lest* on the Supporting clause, as in (62) and:

(137a) Make a list of the points, [*in case you forget what to say*]<sub>sc</sub>.

(137b) Make a list of the points, [*lest you should forget what to say*]<sub>sc</sub>.

The clauses could occur in the opposite order in each sentence but, as mentioned in §4.4, there appears to be a preference—in English, and in other languages—for the Focal clause to come first within a Possible consequence linking.

*In case* may be used whether the possible consequence might be good—as in (63)—or bad, whereas *lest* (which is in fact rather archaic) implies that it would be unwelcome. *For fear that* may be used with a similar sense to *lest*, as in:

- (137c) Make a list of the points, [for fear that you may forget what to say]<sub>sc</sub>.

Possible consequence may also be shown by *otherwise* in the Supporting clause. This is a sentential adverb and may appear in any of the three standard positions for this variety of adverb—clause initially, after the first word of the auxiliary, or clause finally (Dixon 2005: 386–9). The Supporting clause must include an auxiliary (typically *may*, *might*, *will*, or *would*) and has to follow the Focal clause. For example:

- (137d) Make a list of the points, [otherwise you may forget what to say]<sub>sc</sub>.  
 (137e) Make a list of the points, [you may otherwise forget what to say]<sub>sc</sub>.  
 (137f) Make a list of the points, [you may forget what to say otherwise]<sub>sc</sub>.

*Otherwise* implies that if the activity described in the Focal clause does not take place, that of the Supporting clause may eventuate (and it would not be welcome). In contrast, *in case* (and *lest*) imply that the Focal clause activity should be engineered to take place against the possibility of that of the Supporting clause happening. One can say:

- (138a) I'll take an umbrella, [in case it rains]<sub>sc</sub>.  
 (138b) I'll take an umbrella, [lest it should rain]<sub>sc</sub>.

But scarcely:

- (138c) \*I'll take an umbrella, [otherwise it may rain]<sub>sc</sub>.

This sentence would only be acceptable for someone who holds the peculiar belief that taking an umbrella along ensures that it will not rain (the rain will see the umbrella and choose to remain in its cloud).

There are circumstances in which *otherwise* may be used, but not *in case* or *lest*. For example:

- (139) It's lucky I'm interested in the work, [otherwise I might go mad]<sub>sc</sub>.

The regular Consequence marker *because* may be used together with a modal to indicate Possible consequence:

- (137g) Make a list of the points, [because you might forget what to say]<sub>sc</sub>.  
 (138d) Take an umbrella, [because it may rain]<sub>sc</sub>.

Here the Supporting clause has to come last. When *otherwise* is appropriate, it typically occurs with *because*, as in:

- (137h) Make a list of the points, [because you might otherwise forget what to say]<sub>sc</sub>.

And *or* (*else*) plus a modal may be marker on a Supporting clause—again, this must follow the Focal clause—of a type which permits *otherwise*, as in:

(137i) Make a list of the points, [or (*else*) you might forget what to say]<sub>sc</sub>.

#### 6.4. Addition, including contrast

IVu, Unordered addition (see §4.5), simply joins together (in one intonation group) two clauses which provide related information. Thus:

(68) Mary peeled the potatoes and John shelled the peas.

(140) At the concert, Mary danced and John sang.

In each instance, the clauses could occur in either order, with no significant difference in meaning. Many languages simply appose clauses for Unordered addition; English joins them with *and*.

*And* is also one of the ways of marking IVs, Same-event addition. But here there are alternative markers—conjunction (*and*) *besides*, plus half conjunctions *moreover* and *in addition*. For example:

(141a) The house is expensive and the garden is rather small.

(141b) The house is expensive [(and) besides the garden is rather small]<sub>sc</sub>.

(141c) The house is expensive; [the 'garden, moreover, is rather small]<sub>sc</sub>.

(141d) The house is expensive; [in addition, the garden is rather small]<sub>sc</sub>.

Each half conjunction can occur at any of the three standard positions (only one position is illustrated here). Each of them may combine with *and* (but not with (*and*) *besides*).

Sentence (141a) could be treated as Unordered or as Same-event addition, so that we should not here attempt to recognize Focal and Supporting clauses. But (141b–d) are clearly of the Same-event type, with *The house is expensive* being the Focal clause.

However, the various markers—despite all marking the same kind of Addition linking—do show semantic differences. Consider:

(142) I don't want to go, [(and) besides I'm tired]<sub>sc</sub>.

*Moreover* could be substituted for (*and*) *besides* here. *In addition* could be at a pinch, but *and* would not really be felicitous in the sentence.

English has a number of markers of all three grammatical types to show IVc, Contrast. In many contexts, each can be substituted for the others. For example:

(143a) [(Al)though I was only six years old]<sub>sc</sub>, I do remember it well.

- (143b) [Even though I was only six years old]<sub>sc</sub>, I do remember it well.  
 (143c) [I was only six years old]<sub>sc</sub>, but I do remember it well.  
 (143d) [I was only six years old]<sub>sc</sub>, however I do remember it well.  
 (143e) [I was only six years old]<sub>sc</sub>, nevertheless I do remember it well.  
 (143f) [I was only six years old]<sub>sc</sub>, yet I do remember it well.  
 (143g) [I was only six years old]<sub>sc</sub>, still I do remember it well.

The half conjunctions *however*, *nevertheless*, and *still* could follow '*do*', which would then be stressed. (They may not follow the *I* of the second clause since this could not be contrastive, being identical with the subject of the first clause.)

*Yet* has interesting grammar. It appears to be a half conjunction since it can occur together with a marker on the Supporting clause, as in:

- (143h) [Although I was only six years old]<sub>sc</sub>, yet I do remember it well.

However—unlike *however*, *nevertheless*, and *still*—*yet* can only occur clause initially.

We also have prepositions *despite* and *in spite of*, which are followed by an NP or an ING complement clause:

- (144) Despite/in spite of my young age, I do remember it well.  
 (145) Despite/in spite of (my) being only six years old, I do remember it well.

### 6.5. Disjunction

VId, Disjunction linking, is in English shown by *or* between the clauses, which may occur in either order with no significant meaning difference. The first clause may, in many circumstances, optionally be preceded by *either*:

- (87a) (Either) John will dance or Mary will sing.  
 (87b) (Either) Mary will sing or John will dance.

And, as mentioned in §6.3, an additional use of *or*—(or *or else*)—is as a Possible consequence marker, as in *Hide or you'll get caught! Not plus or blend together as nor*; see §6.6.

Markers in English for Vr, Alternative rejection, Vs, Alternative suggestion, VIr, Real manner, and VIh, Hypothetical manner, were given in §§4.7–8.

### 6.6. Other uses for markers of clause linking

An interrogative complement clause can be introduced by *if* (as an alternative to *whether*). We also find *for* (*to*)—but not *in order* (*for*) *to*—introducing a

purposive complement clause. Most of the markers of relative time (not *when* or *while*) may occur with an NP; for example, *after Christmas*, *before the election*.

Three conjunctions may also link NPs or words.

- *And* can link NPs (*the fat man and the jolly woman*), nouns (*old [men and women]*), adjectives (*the fat and jolly miner*), and verbs (*He can't apply and withdraw, all on the same day*). What might appear to be coordinations of predicate-plus-following-NPs are best regarded as reduced versions of conjoined clauses with anaphoric omission of an argument; for instance *Mary painted the fence in the garden and polished the table in the dining room*.
- *But* can, as mentioned in §2, be used to link—and contrast—adjectives, as in *He was poor but honest*. It may also mean 'except' as in *All but two of the participants have sent in their papers*. And *nothing but* means 'only' as in *There was nothing but cake to eat*.
- *Or* is most likely to link NPs, or nouns, or adjectives, or verbs, as in *I don't like (either) fatty foods or strong drink*, *We could invite (either) John or Mary*, *It doesn't matter whether it is (either) wet or dry*, and *You could (either) dance or sing*.

*Either* may optionally be included in most disjunctions involving *or*, as shown by parentheses in the examples just quoted. In some cases, *either* is scarcely felicitous, shown by double parentheses. But, in a question, the inclusion or omission of *either* yields different meanings. For instance:

(146) Was she either blond or brunette?

(147) Was she blond or brunette?

Sentence (146) enquires whether one of these descriptions would apply; the answer would be 'yes' if she were either blond or brunette and 'no' if she were, say, a redhead. Sentence (147) could have this meaning, but is more likely to be taken as asking which of the alternatives applies; the answer expected would be 'blond' or 'brunette' or 'neither'. (On this interpretation, (147) is a content question, whereas (146) is a polar question.)

A special feature of English is that *not [either X or Y]* becomes *neither X nor Y*, the negation attaching to both *either* and *or*. For example, *Neither Mary nor John knew the answer*. The combination *neither... nor* is most often found with NPs and with adjectives (*She is neither tall nor short*). *Nor* may be used in the second element of a clausal disjunction, where the first clause is marked as negative, as in:

(148) I can't swim, nor can I ride a bicycle.

If *neither* were used in the first clause it would have to be \**Neither can I swim nor can I ride a bicycle*, which is scarcely acceptable.

Note that *neither* has additional uses. *Neither (man) knew* is shorthand for *Neither the first man (of the pair of men) nor the second man (of the pair) knew*. And *neither* may be used in place of *nor* in a sentence like (148): *I can't swim, neither can I ride a bicycle*.

## 7. The individual studies in this volume

The fourteen chapters which follow each provide a comprehensive account of the semantics of clause linking in a language with which the author has intimate knowledge, based on extensive fieldwork (or, in the case of Akkadian, full acquaintanceship with all available materials).

The volume commences with Guy Deutscher's account of Akkadian (spoken three millennia ago in Mesopotamia), which belongs to the Semitic branch of the Afro-Asiatic family. The next six chapters deal with languages which tend to employ special markers on verbs (rather than conjunctions) to mark clause linking. First of all, two Tibeto-Burman languages—Galo (from north-east India) by Mark Post, and Kham (from Nepal) by David E. Watters. Alexandra Y. Aikhenvald discusses Manambu (Ndu family) from the Sepik region of Papua New Guinea. There follow three accounts of languages from the Americas—Iquito, a Zaparoan language, from Peru, by Lev Michael; Aguaruna, a Jivaroan language, also from Peru, by Simon Overall; and Ojibwe, an Algonquian language from Canada, by J. Randolph Valentine.

There are then two studies of clause linking from the wide-ranging Oceanic subgroup of Austronesian—Boumaa Fijian by R. M. W. Dixon, and Toqabaqita (from the Solomon Islands) by Frantisek Lichtenberk. The next chapter represents the Australian area—Martuthunira, from the Pilbara region of Western Australia, by Alan Dench. The dauntingly rich repertoire of clause linking devices in Korean is described by Ho-min Sohn in Chapter 12.

We then return to the Afro-Asiatic family, now dealing with living languages—Goemai (Nigeria), from the Chadic branch, by Birgit Hellwig, and Konso (spoken in southern Ethiopia), from the Cushitic branch, by Maarten Mous and Ongaye Oda. Chapter 15 discusses Mali (Baining family), from the Bismarck Archipelago of Papua New Guinea, by Tonya Stebbins.

Twelve of the chapters are organized according to the numbered list of semantic types of clause linking set out in Chapter 1 (summarized in Tables 1 and 2 here). A different approach is followed in Chapters 5 and 9, on



Manambu and Boumaa Fijian—types of clause linking are discussed in relation to an inventory of grammatical construction types, and then summarized in tabular form.

The final chapter—‘Semantics and grammar in clause linking’, by Alexandra Y. Aikhenvald—draws together some of the recurrent themes from the individual studies in the volume, and airs further issues. It also indicates fruitful directions for further research.

## References

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# The Semantics of Clause Linking in Akkadian

GUY DEUTSCHER

## 1. Background

Akkadian is the earliest known Semitic language. It was spoken in ancient Mesopotamia, the ‘land between the rivers’ (Tigris and Euphrates), in an area which roughly corresponds to today’s Iraq. It was written in the cuneiform script, on clay tablets. Akkadian is one of the earliest and longest attested languages, with a history spanning more than two thousand years. The first written attestations are from around 2500 BCE, and the language was spoken until around 500 BCE, when it was displaced by Aramaic. From the second millennium BCE, two distinct dialects of Akkadian emerged, Babylonian and Assyrian. Babylonian was spoken in the southern part of Mesopotamia, and Assyrian in the north. The history of the Akkadian language is conventionally divided into four main chronological periods:

Old Akkadian (2500–2000 BCE)

Old Babylonian      Old Assyrian (2000–1500 BCE)

Middle Babylonian      Middle Assyrian (1500–1000 BCE)

Neo-Babylonian      Neo-Assyrian (1000–500 BCE)

Over such a time span, significant changes in the language are evident. However, as the emphasis in this volume is synchronic, this chapter concentrates on one period and one dialect: Old Babylonian. This is considered the ‘standard’ or ‘classical’ phase of the language, both by scholars today and by the Babylonians and Assyrians themselves, who in later periods tried to emulate it in their poetry and even some prose genres. So henceforth, the term Akkadian should be read as ‘Old Babylonian Akkadian’. The examples used in this chapter come mostly from letters, sent between individuals or officials, dealing with commercial and administrative matters, and often

written in a colloquial style which must have been fairly close to the spoken language. They show marked linguistic differences from literary texts.

## 2. Typological profile

Akkadian is a typical Semitic language in all but constituent order. It is synthetic and nominative-accusative in both morphology and syntax. The core arguments in a verbal clause are S, A, and O. Many verbs could be termed ambitransitive of the S=A type. Ambitransitives of type S=O are rare. Akkadian has mostly dependent marking. Nouns have three cases: nominative, accusative, and genitive. All prepositions take the genitive case. Pronouns also show a dative case. Nouns distinguish between singular, plural, and, in the earlier periods, also dual. There are two genders, masculine and feminine.

As in other Semitic languages, the verbal morphology is based on consonantal roots and internal vowel patterns, combined with prefixing, suffixing, infixing, and gemination. The verb has obligatory agreement with the subject (S and A), achieved through a combination of prefixing and suffixing. (In the glosses below, person indication refers to subject agreement—there is no difference in agreement patterns between S and A.) The verb may also contain object and dative pronominal suffixes. Verbs have three tenses, traditionally called ‘past’, ‘perfect’, and ‘present’ (which should more accurately be called ‘non-past’, because it can be used for future and various modal nuances). Other forms of the verb include an imperative, a purposive, a stative, and a nominalized verbal form traditionally called infinitive. Akkadian is a strict verb-final language, an ‘un-Semitic’ feature which is due to convergence with Sumerian. Nevertheless, inside the NP and PP, word order is the ‘VO’ type: N-G, N-REL, Prepositions, N-DEM. Both AOV and OAV orders are common.

There are two types of non-main clauses: finite dependent clauses and infinitive clauses. Finite dependent clauses are distinguished from main clauses by the choice of negation marker and by the ‘subordinative’ form of the verb. All non-main clauses use the negation marker *lā*, whereas main clauses generally use the negation marker *ul*. (However, *lā* is also used in main clauses in the ‘prohibitive construction’: imperatives cannot be negated in Akkadian, and instead *lā* is used with a verb in the present tense. Such main clause uses of *lā*, as in (13) and (21) below, are glossed as PROHIB to avoid confusion with dependent *lā*.) Finite dependent clauses generally have the same structural possibilities as main clauses, but their verb is marked by the ‘subordinative’ suffix *-u*. (Apart from the addition of the subordinative suffix, there are no restrictions on the inflectional properties of subordinative finite verbs compared to main verbs.) In some verbal forms, however, when there are already other suffixes on the verb, *-u* is not added, so this distinction is

neutralized. The differences between main clauses and finite dependent clauses are demonstrated in the two examples below. (1) represents two main clauses in apposition, and (2) a finite dependent clause (in this case, a complement clause) and main clause:

- (1) [še'-am ul imḥur] [atta tīde]  
 barley-ACC NEG:MAIN 3sg:received 2msg:NOM 2msg:know  
 He didn't receive the barley, you know (this).
- (2) [kīma še'-am lā imḥur-u] [atta tīde]  
 COMP barley-ACC NEG:DEP 3sg:received-SUBORD 2msg:NOM 2msg:know  
 You know that he didn't receive the barley.

There are also dependent clauses with a nominalized form of the verb called infinitive, which takes case marking (and no tense or number marking). The relevant ones for our purpose are introduced by conjunctions (often the same ones that introduce finite dependent clauses). The conjunction may appear clause internally, that is, immediately preceding the verb, as in (11) below, or clause initially. Dependent clauses generally come before the main clause. Especially when they are short, however, they may be embedded within the main clause, as in (14) below.

### 3. The particle *-ma*

In the first few decades after Akkadian was deciphered, when scholars started reading the wealth of texts that have come to light, the narrative style of Akkadian—which was then known as Assyrian—was initially a cause of some concern, even to those scholars seasoned in the heavily paratactic style of Biblical Hebrew. 'One cannot fail to note that the spirit of Assyrian cares little for subordinate ideas,' writes Lester Bradner in the journal *Hebraica* in 1892. 'Co-ordination is the rule, to an extent which grows rather tiresome to modern ears' (Bradner 1892: 5). Now, if one looks at the following example from an Old Babylonian letter, one might find the statement above rather strange:

- (3) ṣuḥār-ī                      ṣa    ištu    ṣubt-ia                      ṣa    bāb    Ur  
 servant-1sgPOSS    [<sub>1</sub>REL from post-1sgPOSS    [<sub>2</sub>REL gate.of Ur  
 ṣa    maḥar                      Sutī    wašb-āku  
 [<sub>3</sub>REL opposite.of Suteans sit:STAT-1sg]<sub>3</sub>]<sub>2</sub>  
 ana    Larsa    aštanappar-aš-šu  
 to    Larsa    1sg:send:ITER-VENT-3msgO]<sub>1</sub>  
 [kīma    1 kur    še'-am                      Balā    tušābil-am]                      iqbi'-am  
 COMP    1 kor    barley-acc    Balā    2msg:sent-VENT    3sg:said-1sgDAT

My servant [<sub>1</sub>whom I often send from my post [<sub>2</sub>which is the gate of Ur [<sub>3</sub>where I am stationed opposite the Suteans]<sub>3</sub>]<sub>2</sub> to Larsa]<sub>1</sub> told me [that you had sent Balā with 300 litres of barley to me]. (AbB 14: 112: 9)

Not only is relativization used extremely often, it is not extraordinary to find multiple embedding as in the example above. So it could not have been a paucity of relative clauses that drew Mr Bradner's attention. What must have caused the strong 'paratactic' impression is one ubiquitous enclitic coordinating particle. The particle *-ma* is added to the last word of a clause (i.e. to the verb), and is both extremely common, and used for a wide variety of functions, such as temporal succession, conditional, result, purpose, and contrast. The particle *-ma* marks a close logical connection between the clauses, but the exact nature of the logical relation is not explicitly specified, and has to be gathered from the context. When two or more clauses are coordinated with *-ma*, the second (or last) clause is always the focal clause. The following example shows two successive instances of *-ma* (glossed AND) used for contrast (4a) and result (4b):

- (4) (a) ana alāk-im pān-ia aškun-am-**ma**  
           to go:INFIN-GEN face-1sgPOSS 1sg:placed-VENT-AND  
       (b) bīt bēl-ia iṣṣur-anni-**ma** ul  
           house.of lord-1sgPOSS 3sg:detained-1sgO-AND NEG:MAIN  
           allik-am  
           1sg:went-VENT

I was planning to go, and(=but) my lord's household detained me, and(=thus) I could not come. (AbB 14: 204: 15)

The most common use of *-ma* coordination, however, is for temporal succession:

- (5) [warkat-am purus-**ma**]<sub>sc</sub>  
       matter-ACC msg:investigate:IMP-AND  
       ṭēm-am gamr-am šupr-am  
       report-ACC complete-ACC msg:send:IMP-VENT  
       Investigate the matter and (then) send me a complete report. (AbB 4: 20: 21)

Another very common use is for purpose linking:

- (6) [bā'er-am šuāti ana Bābili šūri'-am-**ma**]<sub>sc</sub>  
       fisherman-ACC DEM:ACC to Babylon msg:send:IMP-VENT-AND  
       ana bīt šipr-im l-innadin  
       to house.of work-GEN purp-3sg:PASS:give  
       Send that fisherman to Babylon so that he should be given to the  
       workhouse. (AbB 13: 7: 20)

Further uses, such as conditional, will be detailed below. But underlying all the different logical relations, there is one common directionality: that of time. Clauses coordinated with *-ma* are never reversible, since what comes first in time appears in the first clause, and what comes after in the second. (The only cases where the time sequence is reversed are in a few pseudo-serial constructions used for adverbial modification, such as ‘finish-*ma* cultivate’, which means ‘finish cultivating’. Such constructions will not be discussed in this chapter, but see Kraus 1987.)

In addition to its coordinating function, the particle *-ma* is also used as an emphasis and focus marker within the clause (as in 8, 30 below, where it is glossed EMPH). If the clause linking (coordinating) *-ma* and the clause-internal *-ma* derive from the same diachronic source, then the clause-internal role must be primary, as it is attested in all branches of Semitic (Kienast 2001: 388–9), whereas clause linking functions of *-ma* are attested, outside Akkadian, only in some Ethiopic Semitic languages (e.g. Leslau 1970).<sup>1</sup>

Since the coordinating *-ma* is so common, if translated literally, Akkadian narrative style may seem like endless stretches of ‘and... and... and’, and this is what must have made such a strong impression on Mr Bradner and other early researchers. But Akkadian can also mark various logical relations between clauses explicitly, using non-main clauses introduced by a variety of conjunctions. The more common ones will be discussed below.

There is a very strong preference for the focal clause to be the main clause. Non-main clauses almost always precede the main clause, and so the SC in Akkadian almost always precedes the FC. The typical two structures, therefore, are:

|   |                             |
|---|-----------------------------|
| [Main Clause - <i>ma</i> ] <sub>SC</sub>      | [Main Clause] <sub>FC</sub> |
| [Conjunction + Non-Main Clause] <sub>SC</sub> | [Main Clause] <sub>FC</sub> |

## 4. Temporal

### 4.1. *Temporal succession*

Temporal succession is expressed with *-ma* coordination, as in (5) above. When, in a sequence of events related in the past tense, the nuance of

<sup>1</sup> A conceivable scenario for the path from a clause internal marker to a clause linker in a verb final language may be the use of a contrastive marker on a verb, thus placing a whole clause in contrastive/concessive relation to the following clause. Note a partial parallel in Galo (Chapter 3), where example (34) shows the relation between the clause-internal contrastive marker *da* and the clause linker (concessive) marker *da-ram*, which is apparently composed of *da* and a subordinating morpheme. In Akkadian, clause linking *-ma* can mark both contrast and concessive relations, although neither of these is its core function. Such a scenario, therefore, would require that the clause linking role of *-ma* started in a more restricted type of clause linking (such as concessive or contrast), and was subsequently generalized to other semantic types, including simple temporal succession. The subject requires further research.

TABLE 1. Summary of the main clause linking constructions in Akkadian

| Clause Linking Type      | Construction   | Example       | Comments                                       |
|--------------------------|--|---------------|--|
| Is Temporal Succession   | Coordination with <i>-ma</i>   | 5             |  |
| Ir Relative Time         | <i>inūma</i> ‘when’, <i>ištu</i> ‘since’, <i>kīma</i> ‘as soon as’, <i>warki</i> ‘after’<br><i>adi</i> ‘until’, <i>lama</i> ‘before’ | 7–13<br>14–17 | SC may occasionally appear after FC            |
| Ic Conditional           | <i>šumma</i> ‘if’  | 18            | SC is hybrid between main and dependent clause |
| IIc Cause                | Coordination with <i>-ma</i><br><i>aššum</i> ‘because’   | 20<br>22      |  |
| IIr Result               | Coordination with <i>-ma</i>   | 4             |  |
| IIp Purpose              | Coordination with <i>-ma</i><br>+ purposive marker on verb in second clause<br><i>ana</i> ‘to’ + infinitive dependent clause         | 6<br>25       | Markers on both SC and FC                      |
| III Possible Consequence | Coordination with <i>-ma</i><br>+ prohibitive in second clause   | 27            | Markers on both SC and FC                      |
| IVu Unordered Addition   | Coordination with <i>u</i>   | 28            |  |
| IVe Elaboration          | Coordination with <i>u</i>   | 29            |  |
| IVc Contrast             | Coordination with <i>-ma</i><br>Coordination with <i>u</i>   | 4, 31<br>32   |  |
| Vd Disjunction           | <i>ū</i> ‘or’  | 34            |  |
| Vr Rejection             | <i>kīma</i> ‘instead of’   | 35            |  |
| VIr Real Manner          | <i>kīma</i> ‘as’ + finite dependent clause<br><i>kīma</i> ‘as’ + infinitive clause   | 36<br>37      | Manner with strong implication of purpose      |
| VIh Hypothetical Manner  | <i>kīma ša</i> ‘as if’   | 38            |  |

Note: Markers are on SC unless otherwise stated. SC comes before FC unless otherwise stated.

temporal succession is stressed (that is, ‘and then’ rather than just ‘and’), the last clause can appear in the perfect. (Cf. (18) below, where the last conditional clause ‘and then did not prove him’ is in the perfect.)

More rarely, the particle *-ma* can be omitted, and temporal succession is thus expressed as apposition. The immediacy of apposition may perhaps create a slightly more emphatic effect.



## 4.2. Relative time: markers which do not reverse the order of events

Relative time is expressed through a variety of conjunctions that introduce a dependent clause (always the SC). All the main relations listed in Chapter 1 can be represented in this way, but there is not always a clear differentiation between point in time and length of time. The majority of conjunctions maintain ‘time iconicity’, that is, they do not reverse the order of events:

*inūma* (‘when’, ‘while’):

- (7) [inūma lā wašb-āku]<sub>sc</sub> Nūr-ištar igri-šunūti  
 when NEG:DEP be.present-1sg:STAT Nūr-ištar 3sg:sued-3mplO  
 But when/while I was absent Nūr-Ištar sued them. (AbB 14: 167: 22)

*ūm* (literally ‘day.of’) is used when a precise point of time is emphasized. In the following example, there is an additional adverbial phrase ‘on that very day’ at the beginning of the FC:

- (8) [ūm isanni-akkum]<sub>sc</sub> ina ūm-im-ma šuāti  
 day.of 3sg:arrive-3msgDAT in day-GEN-EMPH DEM:GEN  
 [maštūt-am ša ina qāti-ka ibašš-ū]<sub>o</sub>  
 cloth-ACC REL in hand-2msgPOSS 3sg:exist-SUBORD  
 l-iqappilū  
 PURP-3mpl:roll.up  
 On the day when it arrives with you, on that very day they should roll  
 up the textile which you have. (AbB 6: 189: 15)

The preposition/conjunction *ištu* is used both in a spatial sense (‘from’, as in 3 above) and in a temporal sense (‘since’, ‘after’), as in (9):

- (9) [ištu sili’ta-ka ešm-û]<sub>sc</sub> mādiš attaziq  
 since illness-2msgPOSS 1sg:heard-SUBORD very 1sg:worry:PER  
 Since I have heard (about) your illness, I have become very worried.  
 (AbB 7: 62: 7)

*Kīma* is a preposition/conjunction with a wide range of meanings: ‘like’, ‘as’, ‘according to’, ‘instead of’, ‘as soon as’, ‘because’. Its original sense must have been ‘like’/‘as’ (cf. Deutscher 2000: 37–8), and from there it must have acquired all its other meanings. As a temporal conjunction, it is used in the sense ‘as soon as’ to stress the immediacy of the time of the FC after the SC:

- (10) [kīma tupp-ī annī-am tammar-u]<sub>sc</sub>  
 as.soon.as tablet-1sgPOSS DEM-ACC 2msg:see-SUBORD

nēmetta-ka      ana   Bābili      šūbil-am  
 levy-2msgPOSS   to   Babylon   msg:send:IMP-VENT  
 As soon as you see this letter of mine, send your levy to me to Babylon.  
 (AbB 2: 53: 19)

An alternative way of expressing the same meaning is with an infinitive construction introduced by *ina* ‘in/on’:

- (11) [tupp-ī      annī-am   **ina**   amār-im]<sub>sc</sub>      ana   Bābili      ana  
 tablet-1sgPOSS   DEM-ACC   **on**   see:INFIN-GEN   to   Babylon   to  
 maḥr-ia      alk-am  
 presence-1sgPOSS   msg:go:IMP-VENT  
 On seeing this letter of mine, come to Babylon to my presence.  
 (AbB 6: 96: 9)

There is no clear difference in meaning between (10) and (11) above. In the late Old Babylonian period, the *kīma* construction gradually displaces the infinitive construction with *ina*, a process which becomes even more marked in later stages of Akkadian.

The preposition/conjunction *warki* means ‘after’ (in both spatial and temporal senses). It is used overwhelmingly as a preposition (‘we’ll come after the harvest’). Indeed, Akkadian often uses a mere NP for indicating relative time where English would naturally require a clause, as in (12). It seems that *warki* is used as a conjunction only with verbs denoting death.

- (12) [**warki**   tupp-ia      ann-îm]      ana   UD.10.KAM  
**after**   letter-1sgPOSS   this-GEN   to   tenth day  
 maḥrī-ka      anāku  
 presence-2msgPOSS   1sg:NOM  
 After this letter of mine, I will be with you on the tenth day.  
 (AbB 6: 21: 11)  
 (~I will be with you ten days after this letter of mine arrives.)

Akkadian does not show the coincidence between ‘when’ and ‘if’ that is found in many languages. But there is one more specific type of temporal condition that is expressed with a temporal conjunction, *adi lā* (literally ‘until not’). This is used to mark conditions of the type ‘until X does not happen, Y should not happen’, or in other words ‘Y should happen only once X has happened’:

- (13) [**adi**   **lā**      irriš-u]<sub>sc</sub>      **lā**      illak-am  
 [until   NEG:DEP   3sg:cultivate-SUBORD   PROHIB   3sg:go-VENT  
 Until he doesn’t cultivate (the field), he must not come here.  
 (AbB 14: 163: 34)  
 (‘He should come here only once he has cultivated it’)

4.3. *Relative time: markers which reverse the order of events*

There are only two main markers which reverse the order of events, *lāma* ('before'), which is relatively uncommon in the texts, and *adi* ('until', 'as long as'), which appears more often:

- (14) ward-um šū [lāma bāb Akšak  
 slave-NOM DEM:NOM before gate.of Akšak  
 ippett-u]<sub>sc</sub> illik-am  
 3sg:opened:PASS-SUBORD 3sg:went-VENT  
 This slave came to me before the city gate of Akšak was opened.  
 (AbB 1: 82: 9)
- (15) [adi [šuḥār-um ša še-am ubl-am]<sub>A</sub>  
 until servant-NOM REL barley-ACC 3sg:brought-1sgDAT  
 iqbi-am]<sub>sc</sub> maši-āku  
 3sg:said-1sgDAT forget-1sg:STAT  
 Until the servant who brought me the barley told me, I forgot (about it).  
 (AbB 2: 93: 8)

It is interesting, and surely no coincidence, that of all the conjunctions used for clause linking, only these two, *adi* and *lāma*, occasionally allow the dependent clause to come *after* the main clause, and thus the order of events in reality is re-established (16, 17). (The only other dependent clauses that may occasionally appear after the main clause are finite complements. See Deutscher 2000: 50.)

- (16) anāku annikīam aštaqal  
 1sg:NOM here 1sg:weigh:PER  
 [adi kasp-am ana bēli-šu tuterr-u]<sub>sc</sub>  
 until silver-ACC to owner-3msgPOSS 2msg:return-SUB  
 I have weighed (the silver) here, until you return the silver to its owner.  
 (AbB 6: 148: 16)
- (17) šupr-am-ma šāb-am ina šipr-im l-ipušū  
 msg:write:IMP-VENT-AND people-ACC in work-GEN PURP-3mpl:do  
 [Išarkubi lāma ikšud-a]  
 [Išarkubi before 3sg:arrive-VENT]<sub>sc</sub>  
 Write (to them) so that they put the men to work before Išarkubi arrives.  
 (AbB 9: 220: 17)

## 4.4. Conditional

Most commonly, conditional linkage is expressed with a dedicated marker *šumma* ‘if’, which introduces the SC. The conditional clause always precedes the FC (main clause). In terms of their syntactic status, clauses introduced by *šumma* are unusual, in that they blend main and dependent features: they use the independent form of the verb (unlike dependent clauses), but negation is expressed not with the main clause negation marker *ul* but with the dependent negation marker *lā*. Example (18) is the first law in the Code of Hammurabi, a collection of laws that all begin with the word *šumma*:

- (18) (a) [*šumma* awīl-um awīl-am ubbir-ma  
if man-NOM man-ACC 3sg:denounced-AND  
(b) nērt-am eli-šu iddī-ma  
murder-ACC on-3msgPOSS 3sg:laid-AND  
(c) lā uktīn-šu]<sub>sc</sub>  
NEG:DEP 3sg:prove:PER-3msgO  
(d) mubbir-šu iddāk  
accuser-3msgPOSS 3sg:kill:PASS

If a man denounced another man, and laid murder on him (i.e. accused him of murder), and/but then has not proved (it against) him, his accuser shall be killed. (CH §1, Roth 1997)

Specifically counterfactual condition is expressed by adding the irrealis particle *-man* to *šumma*. (The particle *man* must be related to the interrogative pronoun *mannum* ‘who’.)

- (19) [*šumma-man* šibūt-am lā īšu]<sub>sc</sub>  
if-IRREALIS need-ACC NEG:DEP 1sg:had  
matī-man ašpur-akkum  
ever-IRREALIS 1sg:wrote-2msgDAT  
If I hadn’t needed something, would I ever have written to you?  
(AbB 3: 33: 9)

However, conditionals can also be expressed by other means, such as coordination with *-ma*:

- (20) [[30 puḥād-ī nēmetta-kunu]<sub>o</sub> ana Bābili ul  
30 lamb-ACC:pl levy-2mplPOSS to Babylon NEG:MAIN  
tubbalā-nim-**ma**]<sub>sc</sub> ana 1 puḥād-im [1 šiqil kasp-am]<sub>o</sub>  
2pl:bring-VENT-AND to 1 lamb-GEN 1 sheqel silver-ACC  
ušašqalū-kunūti  
3mpl:weigh:CAUS-2mplO  
You don’t bring your levy of 30 lambs here to Babylon, and they’ll make you pay 1 šeqel of silver for each lamb. (AbB 2: 75: 23)

A conditional connection can also be expressed by two main clauses without a coordinating marker, but with the word *pīqat* ‘perhaps’/‘it might be that’ introducing the conditional clause.

- (21) [pīqat [ša tuppi šarr-im ubl-am]<sub>A</sub> isahhur-ka]<sub>sc</sub>  
 perhaps REL letter.of king-GEN 3sg:brought-VENT 3sg:search-2msgO  
 lā tanakkud  
 PROHIB 2msg:fear  
 Perhaps (the messenger) who brought the king’s letter will look for you,  
 don’t be frightened. (AbB 7: 42: 15)

## 5. Consequence

### 5.1. Cause

There is a range of conjunctions used to express cause. The most common is *aššum*, which means either ‘concerning’ or ‘because’. (Exactly the same two meanings are attested for Boumaa Fijian *baleta*, Chapter 9, §5.) *Aššum* is a contracted form of the phrase *ana šumi* ‘to name.of’, and seems to be a calque on a Sumerian construction *mu...-a* ‘name... NOMZ’.

- (22) [aššum šuḥār-am ana tinūr-im idd-û]<sub>sc</sub>  
 because boy-ACC to oven-GEN 3sg:cast-SUBORD  
 attunu ward-am ana utūn-im idiā  
 2mpl:NOM slave-ACC to kiln-ACC pl:throw:IMP  
 Because he cast the boy into the oven, you, throw the slave into the kiln!  
 (AbB 9: 197: 7)

As was mentioned above, the conjunction *kīma* has a wide semantic range (‘as’, ‘when’, ‘instead of’). It can also be used in the meaning ‘because’ (Deutscher 2000: 43 ff.). However, it is much rarer in this sense than *aššum*.

The Akkadian temporal conjunction *ištu* ‘since’ can also assume causal undertones, as in (9) above. An emphatic form of this conjunction, *ištūma*, is used only in a causal meaning (and not in a temporal sense):

- (23) [ištūma aqbi-kum-ma lā tamgur-anni]<sub>sc</sub>  
 since 1sg:spoke-1msgDAT-AND NEG:DEP 2msg:agreed-1sgO  
 šarr-um iṣabbat-ka ul awāt-ī  
 king-NOM 3sg:seize-2msgO NEG:MAIN matter-1sgPOSS  
 Since I spoke to you and (=but) you didn’t agree with me, the king will  
 get you. (It will be) none of my business. (AbB 13: 62: 12)

5.2. *Result*

Result is generally shown with *-ma* coordination, as in the last two clauses of (4) above, and in (24):

- (24) [bēl-ī            iqbī'-am-**ma**]<sub>sc</sub>            ašpur-akkum  
 lord-1sgPOSS    3sg:said-1sgDAT-**AND**    1sg:wrote-3msgDAT  
 My lord told me so I am writing to you. (AbB 4: 53: 19)  
 (I'm writing on orders of my lord.)

5.3. *Purpose*

Purpose constructions are marked either with *-ma* coordination or with an infinitive clause introduced by *ana* 'to'. In the coordination construction, when the verb in the first clause is in the present or imperative (that is, if the action has not yet occurred), the verb in the second clause (the FC) will be marked by a purposive prefix. This can be seen with the verb 'give' in (6) above: 'send the fisherman-*ma* let him be given to the workhouse'. If the events have already occurred, a purpose linkage may still be expressed with *-ma* coordination, but the verb in the second clause will not be marked by a purposive, but by a simple past: 'they sent the fisherman-*ma* he was given to the workhouse'. Of course, this construction necessarily implies the purpose was achieved. When no such implication is desired, an infinitive clause is used instead of coordination, as in (25), where there is no implication that the canal was actually opened:

- (25) **ana**    palg-ia            pet-êm            allik  
 to    canal-1sgPOSS    open:INFIN-GEN    1sg:went  
 I went to open my canals. (AbB 9: 227: 21)

While in the coordination construction, the clause showing the purpose is always the focal clause, the situation is different with the infinitive construction. As in other languages reported in this volume (e.g. Aguaruna, Chapter 7), the strong preference in Akkadian for the syntactic main clause to be the focal clause can override the preference for the clause showing purpose to be focal. In (26), both the context and the emphatic marker *lū* before the main verb indicate that it is in fact the main clause, not the infinitive purpose clause, which is focal:

- (26) alpū    [**ana** m-ê            šat-êm]            lū            ušši  
 cattle    to    water-GEN    drink:INFIN-GEN    EMPH    3sg:go.out  
 The cattle go out (of the city gate only) in order to drink water. (AbB 14: 132: 12)

The writer here is trying to stress that he only lets cattle out of the city gate for the absolute necessity of drinking, otherwise he keeps them inside, as he was ordered to do. More freely, we could thus translate it ‘[only when they need to drink water]<sub>sc</sub> do the cattle go out’.

There is also a manner construction that serves to describe purpose: ‘act in such a way that something happens’. See (37) below.

## 6. Possible consequence

Possible consequence is expressed as a negated purpose clause, with *-ma* coordination. The verb in the second clause appears in a prohibitive construction (the usual way to negate both the imperative and purposive). The structure is thus ‘do A-*ma* let B not happen’. In the following example, probably a dictation exercise from the scribal school, the writer tells a tale of woes (‘your sister has died, your mother is ill, and my son has also died’), and then adds:

- (27) [kušd-anni-**ma**]<sub>sc</sub>                      kimt-ī                      lā                      iḥalliq  
 msg:reach:IMP-VENT-AND    family-1sgPOSS    PROHIB    3sg:perish  
 Reach me so that my (whole) family does not perish. (AbB 14: 135: 7)

As with all other instances of *-ma* coordination, the second clause is focal. So in Akkadian, the clause showing what is to be done to avoid the consequence is only the supporting clause.

## 7. Addition

### 7.1. *Unordered addition*

Coordination with *-ma* can never be used for unordered addition. There is another coordination particle, the independent word, *u*, which is used for this purpose. The most common function of *u* is to coordinate NPs (‘send me barley *and* oil’). It can also be used to start a new sentence or ‘paragraph’ (‘and further...’, ‘and on another matter...’). As a clause coordinator, *u* can mark unordered addition, but is very much less common than *-ma*, which reflects the fact that unordered addition is fairly rare. Example (28) demonstrates the complementary distribution of *-ma* and *u*. The particle *-ma* in (a) highlights the temporal succession ‘and thereupon’ (cf. also perfect tense in the following clauses, which strengthens this effect). The word *u* in (b) is used because it is immaterial whether Ilī-aḥṭaliya first beat Walali up and then blocked the canal or vice-versa:

- (28) (a) Walali atapp-am ipte-**ma**  
 Walali canal-ACC 3sg:opened-AND  
 (b) Ilī-aḥṭaliya ittaṭu-šu **u** atapp-am issekir  
 Ilī-aḥṭaliya 3msg:beat:PER-3msgO AND canal-ACC 3sg:block:PER  
 Walali opened up a canal, and then Ilī-aḥṭaliya beat him up and blocked  
 the canal. (AbB 9: 108: 7)

### 7.2. Elaboration

Elaboration is understood here in a stronger sense than that defined in Chapter 1: the second clause does not just provide further information, but strengthens the first clause. The coordination *u* is used for this purpose, as in (29). (Note, incidentally, that the first clause here is a rare case of non-verb-final order.)

- (29) tuštamriš libb-ī **u**  
 2msg:be.ill:PER:CAUS heart-1sgPOSS AND  
 [muruš libb-i rabbi'-am]<sub>o</sub> ana pān-ia taštakan  
 sickness.of heart-GEN very.great-ACC to face-1sgPOSS 2msg:place:PER  
 You have made my heart sick and you have placed very great sickness of  
 heart upon me. (AbB 14: 18: 6)

A more emphatic type of this linkage can be achieved with a conjunction *aššēr* (from *ana šēr* 'to back.of'), meaning 'on top of/in addition to'. (Clearly, the body part metaphor here relies on the 'zoomorphic model'.) The construction with *aššēr* creates an unusual hybrid structure between subordination and coordination. The conjunction *aššēr* introduces a dependent clause, but this clause is separated from the main clause by the coordination marker *u* 'and':

- (30) [aššer atta lā tallik-am]<sub>sc</sub>  
**on.top.of** 2msg:NOM NEG:DEP 2msg:went-VENT  
**u** ṭēm-ka-ma ul tašpur-am  
 AND message-2msgPOSS-EMPH NEG:MAIN 2msg:wrote-1sgDAT  
 On top of (the fact) that you didn't come, and you didn't even write to  
 me your news. (AbB 12: 196: 8)

### 7.3. Contrast

There is no specific way of saying 'but', and contrast is expressed using coordination. The coordinator *-ma* is used when there is a temporal succession, as in (4) above and (31):



- (31) aššum [aqb-û-kum-**ma**]<sub>sc</sub> lā tamgur-anni  
 because 1sg:spoke-SUBORD-2msgDAT-AND NEG:DEP 2msg:agreed-1sgO  
 Because I spoke to you but you didn't agree with me ... (AbB 13: 62: 17)

And the coordinator *u* is used when no temporal succession is implied:

- (32) (a) ana Bābili ṭurd-aš-šunūti **u**  
 to Babylon msg:send:IMP-1sgDAT-3mplO AND  
 (b) ina ṭarād-ika mithariš lā  
 on send:INFIN-2msgPOSS together PROHIB  
 taṭarrad-aš-šunuti  
 2msg:send-1sgDAT-3mplO  
 Send them to me to Babylon, and (=but) when you send, don't send  
 them to me together. (AbB 2: 41: 12)

The concessive relation 'although' can be marked with *-ma* coordination, where the verb in the SC clause is marked by a purposive prefix *l-*:

- (33) If a man marries a daughter of a free man without her parent's consent ...  
 [ūmī šattim ištīat ina bīti-šu l-išim-**ma**]<sub>sc</sub> ul  
 one whole year in house-3msgPOSS PURP-3sg:sit-AND NEG:MAIN  
 aššat  
 wife:ACC  
 She may live in his house a whole year, and(=but) (she is) not a wife.  
 (Laws of Eshnunna §27, Roth 1997)  
 (Although she has lived in his house a whole year, she is not a wife.)

## 8. Alternatives

### 8.1. Disjunction

Disjunction is usually expressed with the word *ū* 'or' or *ū lū* 'or + EMPH' (The word *ū* 'or' is not distinguished in the writing system from *u* 'and', since vowel length is usually not marked. However, they have different etymologies: *u* comes from Proto-Semitic \**wa*, and *ū* from \**au*.)

- (34) If you don't have me released quickly ...  
 uḥtannaq ū lū elli-ma ištu ūr-im amaqqut  
 1sg:strangle:REFL OR EMPH 1sg:go.up-AND from roof-GEN 1sg:fall  
 I will strangle myself or I'll go up and fall from the roof. (AbB 14: 149: 32)

## 8.2. Rejection

This linkage is generally expressed with the conjunction *kīma*, which can mean ‘instead of’:

- (35) [kīma   atta           tappūt   āl-im           tallak-u]<sub>sc</sub>           āl-am  
          instead 2msg:NOM aid.of town-GEN 2msg:go-SUBORD town-ACC  
          turrar  
          2msg:frighten  
          Instead of you going to the town’s aid, you spread panic in it. (AbB 14: 114: 33)

## 9. Manner

The conjunction *kīma*, when it means ‘like’, is used to introduce manner, as in (36). (Indeed, ‘like’ or ‘as’ is diachronically the primary sense of the element *kī* of the conjunction *kīma*.)

- (36) kaparr-ī                   šunūti           [kīma   ina   tuppi           ekall-im  
          shepherd-ACC:PL DEM:ACC:PL AS   in   tablet.of palace-GEN  
          šaṭr-u]<sub>sc</sub>                                   apul-šunūti  
          3msg:write:STAT-SUBORD msg:compensate:IMP-3mplO  
          Compensate them (with) these shepherd-boys, just as is written in the  
          tablet of the palace. (AbB 14: 1: 35)

In the same sense of ‘like’, *kīma* can also introduce an infinitive clause, and then the manner construction takes on the meaning of purpose:

- (37) [kīma   lā           nazāqi-ka]<sub>sc</sub>                   eppuš  
          as   NEG:DEP irritate:INFIN-2msgPOSS 1sg:act  
          I will act (in such a way) as not to irritate you. (AbB 3: 2: 27)

The compound conjunction *kīma ša* (*kīma* + REL), meaning ‘as if’, is used to introduce hypothetical manner:

- (38) [kīma   ša   ina   bīti-šu                   wašb-u]<sub>sc</sub>  
          as if           in   house-3msgPOSS 3msg:sit:STAT-SUBORD  
          pānū-šu                                   daglū  
          face(PL)-3msgPOSS 3mpl:look:STAT  
          He is being looked after, as if he was living in his (own) house. (AbB 9: 230)

## 10. Markers with multiple functions

The two main markers which serve in multiple functions are the coordinating enclitic *-ma* and the conjunction *kīma*. Coordination with *-ma* serves for

temporal succession (5), conditional (20), result (4b), purpose (6), possible consequence (27), contrast (4a, 31). The conjunction *kīma* serves for temporal (10), rejection (35), manner (36), purpose (37), for complement clauses (2), and (more rarely) for cause (no examples here, see Deutscher 2000: 42–4).

However, *kīma* and *-ma* represent two very different ways in which a marker can have ‘multiple functions’, and it is important to distinguish between them. The different uses of *kīma* seem to be a straightforward case of polysemy of distinct senses. Although historically, the whole range of meanings must have developed from one core sense (which comparative Semitic evidence suggests was ‘as/like’), in synchronic terms there is no ambiguity at all between, for instance, the use of *kīma* for relative time ‘as soon as’ and its use for rejection ‘instead of’. These are two different constructions which simply happen to share the same conjunction.

Coordination with *-ma*, on the other hand, cannot be said to have ‘different meanings’ in Akkadian. It is only justified to say that *-ma* is used for ‘different clause linking types’ in the sense that it is used where languages such as English would use different constructions. From the point of view of Akkadian itself, *-ma* has just one basic function: it marks temporal succession between the events and indicates a tight relation between the clauses. The nature of this relation, whether it is ‘just’ temporal succession, or contrast, or result, and so on, is left for the hearer to infer.

## 11. Conclusion

As can be seen from the short survey above, Akkadian has various markers to specify explicitly many kinds of clause linkage. (Only contrast and result entirely lack specific markers and are thus expressed only by coordination.) In particular, it has a range of conjunctions which introduce non-main clauses for specific clause linkage types. In the beginning of the chapter, I quoted a nineteenth-century scholar who claimed that “the spirit of Assyrian cares little for subordinate ideas. Coordination is the rule, to an extent which grows rather tiresome to modern ears.” In light of the above, this sentiment may seem entirely incomprehensible. And yet, it cannot be denied that Akkadian narrative style does seem monotonously coordinating. A grammatical survey of constructions, like the one above, cannot give a true picture of the language, because it lists extremely common constructions side by side with much rarer ones. And in the texts themselves, coordination with *-ma* is so overwhelmingly common compared to any other type of clause linking that it entirely dominates the impression of reading, and creates the ‘and and and’ monotonous effect. This effect is enhanced by the rigidity of the position of the

SC with respect to the FC. Many modern European languages use the flexibility in the position of SC and FC (and in the position of main and non-main clauses) as a means of varying the rhythm of the narrative. In Akkadian, there is generally a strict adherence to one order: non-main clause before main, SC before FC. This means that adverbial clauses, even when they are used, still mostly conform to the same time-iconic pattern of coordination, and appear in the same position they would have occupied had the construction involved two coordinated main clauses. This fact conspires with the predominance of *-ma* coordination to create a constant one-way thrust forward, which strengthens the effect that may be ‘tiresome to modern ears’.

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# The Semantics of Clause Linking in Galo

MARK POST

## 1. Introduction and grammatical sketch

Galo is a Tibeto-Burman language of the Tani branch spoken by around 30,000–40,000 hill tribespeople in central Arunachal Pradesh state, north-east India. There are two major dialects, Lare (*larèe*) and Pugo (*puugóo*), and several minor dialects and subdialects; this chapter is based on the majority Lare dialect, as described by Post (2007).<sup>1</sup> Galo's historical contacts with non-Tani languages appear to have been inextensive; within the last fifty to sixty years, contacts with Indo-European languages such as Assamese, English, and most recently Hindi have increased dramatically.

Galo is morphologically synthetic and agglutinating, with pragmatically variable AOV/SV constituent order and accusative case marking. It is suffixing and postpositional, with postposed classifiers and quantifiers, numerals, and relator nouns. Referential and relational markers are likewise phrasal enclitics. Demonstratives are especially rich in Galo, often reflecting fusion of earlier simplex demonstratives with postpositions and incorporating erstwhile postpositional functions (such as ablative marking); however, unlike true postpositions, demonstratives occur pre-head *and* post-head, sometimes simultaneously. 'Grammatical' and 'phonological' words are often quite mismatched in Galo; phonological words are generally built around trochaic (head first) feet, are minimally bimoraic and usually disyllabic. Grammatical words may be smaller or (much) larger than this. Sequences of grammatical suffixes or particles which frequently co-occur and form a single phonological word sometimes undergo "functor fusion" and reanalysis as morphologically

<sup>1</sup> Transcription follows IPA except where *c* = [tɕ] and *z* = [dʒ]. Tones are High/Plain ´ or Low/Tense ` . Assamese and Hindi loanwords are identified as (<Asm) and (<Hin) respectively in Galo examples. I thank my primary Galo consultants *miilhi nodù*, *igò ribáa*, and *tomóo ribáa*.

independent forms; on the other hand, independent forms undergoing grammaticalization are often reanalysed as suffixes. There are two primary lexical tones, High/Plain and Low/Tense, which interact with one another and with sentence intonation to produce surface tonal contours at both word and phrase levels. In this chapter, only underlying lexical tones are represented.

*Main clauses* are *predicative* or *appositive*. Predicative clauses are headed by a finite (inflecting) verbal or adjectival predicate, and may have 0, 1, or 2 core arguments (S or A/O). Extended atransitive, intransitive, or transitive clauses also occur (adding extension to core argument E). *Appositive clauses* include *copula* and *verbless* subtypes; both encode equative relations among nominal (V)CS and (V)CC, while copula clauses also handle attributive predication (with adjectival CC); existential/possession predicates are handled by intransitive verbs in Galo, not by copulas. Copulas (two: imperfective *əə* and perfective *ee*) do not inflect, but optionally host one or more of a small number of enclitics with aspectual, epistemic, and/or discourse-functional values. In (1), the first bracketed clause is appositive, while the second is predicative. Clause heads are in **bold**.

- (1) [il<sup>h</sup>i=əə    alàp=əə,                      komə́ tə́];    [ín-dùu=bə́  
stone=TOP slippery=COP.**IMPERV** PLACE DIST.UP walk-IMPERV=SUBORD  
rì-máa].  
do-NEG

The stones are (so) slippery up at the Kome river; you can hardly walk.

Most types of non-main clause may be categorized as (a) *non-final*, (b) *adverbially subordinated*, (c) *temporally subordinated*, or (d) *nominalized*. Relative clauses are based on nominalizations. Most complement clause types are marked by dedicated complementizing predicate suffixes, and are not considered further here.

(a) *Non-final clauses* (aka ‘medial’, ‘chained’, ‘co-subordinate’...) are headed by verbal or adjectival predicates in *-làa* ‘NF’. A non-final predicate in *-làa* may occur directly adjacent to a final predicate (usually with a reduced realization of the non-final marker [lə̌ ~ ľ̥ ~ ľ̥]), and occurring closely within the same intonation contour). In this case, the two ‘chained’ predicates often combine semantically to denote two closely linked events, or two analytically distinct aspects of the same overall macro-event. This construction is basically describable as a *complex predicate*, as in *báa-lə́ dó-káa-kú* ‘roast-NF eat-PER-COMPL’ ‘roasted and ate it’.

In other cases, a non-final-marked predicate may occur more distantly from a final predicate (even utterance-finally, and with the non-final marker fully realized [laa]), and depict a single, more or less self-contained event (but which

may form part of a thematically connected sequence of events). In this case, the overall construction is perhaps better described as a *clause chain*. Clause chains in Galo may be very long, extending over twenty or thirty clauses in some narratives, and include both uninflected and inflected, non-recursively embedded non-final-marked predicates.

Although complex predicates and clause chains can thus be distinguished at their prototypical extremes, there are very often cases of seeming intermediacy; it may be that the complex predicate-clause chain distinction would be better represented as a *continuum* among non-final constructions rather than as formally distinct construction types *per se*. In (2) and henceforth, non-main clause marking morphology is in **bold**.

- (2) [ləkèn=nè                      zèe-làa... ] [uug<sup>h</sup>i=əə arék-làa... ] [okkəə (...)  
 once=IRR.TMP.PUNC green-NF back=TOP sharp.blade-NF CONJ  
 ɲobùu ahòo-làa] [r<sup>h</sup>i-tùu-làa                      á-dùu=bə́]  
 tail long/tall-NF tie.up.animal-DOWN-NF keep-IMPERV=SUBJ  
 Sometimes it's green and ... its spine ... is sharp and.... and also (...) its  
 tail is long (such that) it can be used to tie something up.

(b) *Adverbially subordinated clauses* are directly subordinated to a single clause, and may be recursively embedded. They are inflected or uninflected (according to subtype) and are obligatorily marked by a predicate enclitic *bə́* (identical to or homophonous with the Dative case marker). Subjects of adverbially subordinated clauses are almost always ellipsed; if ellipsed, they are almost always understood as coreferential with higher clause subjects. Different subjects should be overt. Any overt subject of an adverbially subordinated clause, whether same or different from the main clause subject, is obligatorily marked in the Genitive. Adverbially subordinated clauses generally give information relating to manner, extent, quality, or purpose, and may occur in any position relative to other clause constituents (3).

- (3) [[[ɲíi    dùu-bə́ə-kò                      ga<sup>h</sup>r<sup>h</sup>i=bə́]  
 person stay-HAB-NOMZ:LOC resemble=SUBORD  
 káa-dùu=bə́]                      r<sup>h</sup>-dùu]  
 look-IMPERV=SUBORD do-IMPERV  
 It looked as though people were living there. (lit., It was as though it  
 looked as though it resembled a place where someone was living.)

(c) *Temporally subordinated clauses* are apposed to, coordinated with, or non-recursively embedded in a main clause, according to subtype and function. They are headed by an inflected predicate followed by a postposition, most often *əəm* (identical to or homophonous with the Accusative case marker); some subtypes

TABLE 1. Simplified summary of Galo clause types (not including relative and complement clauses)

| Type     | Subtype A                   | Subtype B                         | Comments   |
|----------|-----------------------------|-----------------------------------|--|
| Main     | Predicative                 | Verbal<br>Adjectival              | Obligatorily inflected<br>Obligatorily inflected |
|          | Appositive                  | Verbless<br>Copula                | Uninflected<br>Uninflected                       |
| Non-main | Non-final                   | Complex predicate<br>Clause chain | Uninflected<br>Optionally inflected              |
|          | Adverbially<br>subordinated | Verbal/adjectival                 | Uninflected                                      |
|          |                             | Clausal                           | Obligatorily inflected                           |
|          | Temporally<br>subordinated  | Various                           | Obligatorily inflected                           |
|          | Nominalized                 | Various                           | Optionally inflected                             |

are also optionally Topic marked in *əə* ‘TOP’, and like adverbially subordinated clauses their subjects (if overt) are marked in the Genitive. Temporally subordinated clauses generally provide temporal/episodic or hypothetical background information; they usually precede the main clause, but may also occur within it (generally, with an intonational “bracket”) (4).

- (4) [mǝǝ-lèe=əəm=əə] [bɛ̃i kohùk=əəm ɲimǝ-làa-tó]  
 think-SSEQ=ACC=TOP 3sg dried.leaf=ACC wife-take-PERV  
 Thinking about that, he espoused a dried up leaf.

(d) *Nominalized clauses* are most often headed by predicates suffixed in *-nà* (subject), *-nam* (realis action/non-subject core), *-há* (irrealis action/non-subject core), or *-kò* (locative/oblique). They often stand as argument noun phrase heads or adnominal modifiers (aka headless and externally/internally headed relative clauses), but may also stand as adsentential “framing” clauses, usually giving information viewed as background to the event depicted in a main clause (5). More rarely, they may stand as final clauses under copula scope, usually with a factitive or declarative sense (see §2.1, example (7)).

- (5) [arò ogò káa-rǝp-kú-nam=əə]  
 morning TMP.REAL look-INCEP-COMPL-NOMZ:REAL=TOP  
 [tatík=əə dùu-kú-máa]  
 frog=TOP stay-COMPL-NEG  
 The next morning, when he looked, the frog was not there anymore.



TABLE 2. Summary of attested clause linking types in Galo

| Code | Type                | Structural type  | Marker  | Meaning                           | Marks | Remarks   |
|------|---------------------|--|---|-----------------------------------|-------|---|
| Is   | Temporal succession | Non-final predicate suffix   | PRED- <i>làa</i> ‘NF’   | ‘and’                             | SC    | No clear succession unless predicate is inflected, but often implied regardless |
|      |                     | Demonstrative-derived sentence conjunctions  | <i>okkəð</i> ‘CONJ’   | ‘and; from that’                  | FC    | May include causal implication  |
|      |                     |  | <i>əgə̀</i> ‘ANAPH. INDIV’  | ‘that one’                        |       |   |
|      |                     |  | <i>ogò</i> ‘ANAPH. LOC’   | ‘on that’                         |       |   |
| Ir   | Relative time       | Non-final predicate suffixes   | PRED- <i>lèe</i> ‘SSEQ’   | ‘after’                           | SC    | Force sequential reading in clause chain, whether or not predicate is inflected |
|      |                     |  | PRED- <i>gərə̀</i> ‘ACNC’   | ‘after/ moreover’                 |       |   |
|      |                     | Predicate stem-internal derivations  | PRED {- <i>ŋoohí</i> - <i>ròo</i> ... (etc.)}   | ‘during, after...’                | SC    | Assist with relative time relations, but do not encode relative time directly   |
|      |                     | Locative/temporal postpositions and demonstratives with temporal clause subordinating capabilities | { <i>lo</i> ‘LOC’, <i>ogò</i> ‘ANAPH.LOC’, <i>əəm</i> ‘ACC’, <i>bə̀</i> ‘DAT’, <i>lokə̀</i> ‘ABL’, <i>lobə̀</i> ‘DLMT’} | ‘at/on, when, from, since, until’ | SC    | Marked clause inflection also plays role in determining relative time           |
|      |                     | Relator noun   | { <i>kookhí=bə̀/lo</i> }  | ‘afterward’                       | SC    | Post-modifies nominalized clause  |
|      |                     | Subordinated predicate suffixal complex  | PRED- <i>máa-dáa=bə̀</i> ‘NEG-ACHV=SBRD’  | ‘before’                          | SC    | Rare  |

|     |                      |  |  |                                   |    |  |
|-----|----------------------|--|--|-----------------------------------|----|--|
| Ic  | Conditional          | Predicate suffix/noun subordinator                 | (-)boolo ‘COND’                            | ‘if/when’                         | SC | Includes both conditional and simultaneous readings, and counterfactuals                       |
|     |                      | Temporally subordinated irrealis clause            | PRED- <i>rǎ=ǎǎm</i> ‘-IRR=ACC’             | ‘if (in hypothetical case of)’    | SC | Irrealis temporal simultaneity with strong conditional (but not counterfactual) implications   |
| IIc | Cause                | Relator noun                                       | <i>lǎgàa=bǎ</i> ‘reason=DAT’               | ‘because of’                      | SC | Post-modifies nominalized clause   |
|     |                      | Locative nominalization plus Locative postposition | PRED- <i>kò=lo</i> ‘-NOMZ: LOC=LOC’        | ‘because of’                      | SC | —  |
|     |                      | Non-final speech report verb                       | <i>ǎm-làa</i> ‘say-NF’                     | ‘that being so (because of that)’ | SC | —  |
| IIr | Result               | Speech report predicate ‘that being said’          | <i>ǎm-nam=ǎǎ</i> ‘say-NOMZ: REAL=TOP’      | ‘that being so (because of that)’ | FC | —  |
|     |                      | Periphrastic expression ‘for that reason’          | <i>okǎ lǎgàa=bǎ</i> ‘ANAPH.ABL reason=DAT’ | ‘for that reason’                 | FC | —  |
| IIp | Purpose              | Adverbially subordinated clause subtypes           | PRED- <i>tà=bǎ</i> ‘INCP=SBRD’             | ‘to do PRED’                      | SC | SC may be better understood as clause-internal adverbial than as “linked” clause <i>per se</i> |
|     |                      |  | PRED- <i>dóo=bǎ</i> ‘STAT=SBRD’            | ‘in order to do PRED’             |    |  |
| III | Possible consequence | Speech report predicate                            | <i>ǎm-máa=boolo</i> ‘say-NEG-COND’         | ‘if not what was just said’       | FC | —  |

(continued)

| Code | Type                | Structural type  | Marker   | Meaning                  | Marks | Remarks  |
|------|---------------------|--|--|--------------------------|-------|--|
| IVu  | Unordered addition  | Non-final predicate suffix   | <i>-làa</i> ‘NF’   | ‘and’                    | N/A   | May include ‘lilting’ intonation                                     |
| IVs  | Same-event addition | Non-final predicate suffix   | <i>-làa</i> ‘NF’   | ‘and’                    | N/A   | May represent complex predicate formation rather than clause linking |
| IVe  | Elaboration         | Apposition among structurally parallel main clauses                                  | N/A  | ‘and moreover’           | N/A   | —  |
| IVc  | Contrast            | Concessive predicate suffixes  | (-) <i>dakkòm</i> ‘CONC’<br>(-) <i>laacìn</i> ‘CONC’           | ‘although, despite’      | SC    | —  |
|      |                     | Additive concessive predicate suffix   | <i>-gərǎ</i> ‘ACNC’  | ‘moreover’               |       |  |
|      |                     | Concessive particle  | <i>daram</i> ‘CONC’  | ‘although’               |       |  |
| Vd   | Disjunction         | Apposed, and semantically opposed, clauses   | <i>máa</i> ‘DISJ’  | ‘Is it x? Is it y?’      | N/A   | Occurs in wondering/questioning clauses                              |
| Vr   | Rejection           | N/A  | N/A  | N/A                      | N/A   | Occurs monoclausally   |
| Vs   | Suggestion          | N/A  | N/A  | N/A                      | N/A   | Occurs monoclausally   |
| VIr  | Real manner         | Imperfective/negative adverbially subordinated clause                                | PRED= <i>dùu</i> /<br><i>-máa=bə</i><br>‘-IMPERV/<br>NEG=SBRD’ | ‘in a PRED way’          | SC    | —  |
| VIh  | Hypothetical manner | Adverbially subordinated predicate capable of taking a nominalized clause complement | CLAUSE <i>gari=bə</i><br>‘resemble=DAT’                        | ‘like/resembling CLAUSE’ | SC    | —  |

Table 1 summarizes the relevant set of clause types in Galo. The remainder of the chapter discusses clause linking, first summarized in Table 2.

## 2. Temporal (I)

### 2.1. Temporal succession (Is)

The most common means of depicting a simple, relatively close temporal sequence (as “got up and left”) is via *non-final clause* chaining. The non-final suffix *-làa* does not semantically entail temporal succession in itself (see §5); however, a temporal-sequential *implication* is very often derived from predicate semantics and the order in which clauses appear (6). To ensure a sense of temporal succession, non-final predicates may be inflected in Perfective *-tó* and/or Completive *-kú*, either of which marks a given chained predicate as perfected or completed prior to the onset of the ensuing event. Non-final predicates may also take specialized “clause continuity” suffixes such as Sub-sequential *-lèe*, Perfective Sequential *-rée*, and Additive concessive *-gərǎ*, some of which may also co-occur with the Perfective and/or Completive (7).

- (6) *[rǎ-mò-pàa-làa]<sub>SC</sub>*      *[ɲunù áa-lík-làa]<sub>FC</sub>*  
 live/exist-CAUS-ATTN-NF 1pl      come-INTO-NF  
 Letting them be, we came to (this place). *or* We let them be **and** (then)  
 came to (this place).
- (7) *[láo-kǎ=go*      *dùu-tó-rée-kú-làa]<sub>SC</sub>*      *[ɲunù tokkǎ*  
 CLF:DAY-SIX=INDIV stay-PERV-PSEQ-COMPL-NF 1pl      DIST.ABL.UP  
*ín-rǎp-kú-nam=ǎǎ*      *na]<sub>FC</sub>*  
 go-INCEP-COMPL-NOMZ:REAL=COP.IMPERV DEC  
**After** staying for six days... we started heading back home.

In extended chains, it may not always be possible to clearly relate each mentioned event to each other mentioned event in terms of a direct semantic linking; rather, it may be a looser, discourse-level thematic relationship which binds them (cf. §1, ex. (2)). In cases where a clear supporting-focal relationship can be construed among non-final clauses, as in (6)–(7), the supporting clause *always* precedes.

A small number of demonstrative-derived conjunctions may also indicate temporal succession, generally at episodic boundaries and when preceding a focal clause. The most common and generalized is sentence conjunction *okkǎǎ*, which derives from fusion of Anaphoric ablative demonstrative/post-position *okǎ* with Topic marker *ǎǎ* (literally, ‘concerning (what is) from that’).

In some uses, *okkǎə* retains a weak causal/result sense ‘and from that (now this)’, while in other uses the sense is closer to simple temporal succession (8).

- (8) [dó-káa-kú!]<sub>SC</sub> [okkǎə... buddi cèn-lǎə-kú-máa.]<sub>FC</sub>  
 eat-PER-COMPL CONJ brains know-GRAD-COMPL-NEG  
 They ate it up! **And (so)**... their knowledge didn’t increase.

Other demonstratives indicating temporal succession include Anaphoric locative *ogò* ‘on that’ and Anaphoric individuate *əǵə* ‘that one’, both of which also have more general sequential senses ‘so; then’.

## 2.2. Relative time (*Ir*)

A variety of devices encode relative time linking in Galo. The most common construction involves finite supporting clause subordination by *postpositions* whose primary function is to mark argument noun phrases (and which also mark temporal noun phrases with the same basic senses; note that a very similar set of constructions is found in Kham (Watters, Chapter 4)). General Locative postposition *lo* and Anaphoric locative demonstrative postposition *ogò* mark *non-perfect(ive)* supporting clauses as occurring *at the same time* as a focal clause. *lo* marks the supporting clause as a *range* at some point *within* which the event depicted in the focal clause occurs, while *ogò* indicates that the events are *fully overlapping* (9)–(10).

- (9) [káa-bók-dǎk=*lo*]<sub>SC</sub> [ikii=*əə* (... ) kirkii akkǎə]  
 look-DOWN-COS=LOC dog=TOP window DIST.ABL.SLEV  
 ò-lòo-káa-kú]<sub>FC</sub>  
 fall-DESCEND-PER-COMPL

**When** they looked down [i.e., **at some point within the period** of their looking down], the dog (... ) fell down from the window.

- (10) [mootúm=*bǎ* dóo-dǎk ogò]<sub>SC</sub> [maazí=*bǎ*]  
 jungle=DAT be.settled-COS TMP.REAL very.much=AVZR  
 pǎtáa-kobùu=*əə* hottúm-horǎ=*əə* maazí=*bǎ*  
 bird-rodent=TOP bear-boar=TOP very.much=AVZR  
 rǎ-tó]<sub>FC</sub>  
 live/exist-PERV

**When** we lived in the jungle [i.e., **throughout the time during** which we lived in the jungle], lots and lots of wild animals of every kind were there.

A span *since* or *until* which the event depicted in a focal clause is construed to endure is indicated by supporting clause marking in general Ablative *lokǎ* or *lobǎ* respectively, the latter reflecting a fusion of Locative *lo* with Dative *bǎ*.

Accusative postposition *əəm* also marks finite supporting clauses, but has a wider distribution and set of constructional subtypes. Generally speaking, it marks a supporting clause as temporally and/or episodically subordinate to a focal clause, with the relative time relationship as simultaneous or sequential derived from the interaction of supporting and focal clause aspect marking (i.e., supporting clause Perfective marking indicates subsequence, while supporting clause Stative or Imperfective marking indicates different qualities of simultaneity). A supporting clause in *əəm* is very often also topic marked, possibly increasing a sense of “backgrounding” to the information; however, topic marking is not obligatory (11)–(12).

- (11) [*acín*            *dó-tó=əəm=əə*]<sub>SC</sub>    [*ŋó*   *ii-rʰ-kú*]<sub>FC</sub>  
 cooked.rice   eat-PERV=ACC=TOP   1sg   descend-IRR-COMPL  
 After I eat, I'll go back down (to my home). (lit., After I ate, I'll go back down.)
- (12) [*bɪ̃i-kə*   *ii-dak=əəm*]<sub>SC</sub>    [*háa*   *mò-laanã*]<sub>FC</sub>  
 3sg-GEN   descend-COS=ACC   tea   make-IMP.SOFT  
 When he comes down, make tea (for him).

*Predicate stem derivations* may also play a role in establishing the relative time of supporting and focal clauses. Procedural derivation *-ŋoohí* establishes a supporting clause as a process at some point during which a focal clause event occurs, and Completive nominalizer *-ròo* casts a supporting clause event as one completed prior to the onset of a focal clause event; in the latter case, the nominalized supporting clause is expressed as a Dative oblique (13).

- (13) [*tíi-ròo=bə*]<sub>SC</sub>                      [*dó-rʰ*]<sub>FC</sub>  
 imbibe-NOMZ:COMPL=DAT   eat-IRR  
 I'll eat **when** [i.e. **after**] I've finished drinking (this cup of rice beer).

Nominalized clauses may also be followed by the relator noun *kookɪ̃i*. When functioning as a head noun (with any modifiers marked in the Genitive), *kookɪ̃i* has the spatial sense ‘back (side of something)’. When postposed to a distinct nominal head (which can include a nominalized clause), *kookɪ̃i* has the temporal sense ‘after’. In the latter case, there is *no* Genitive marking on the head nominal. *kookɪ̃i* also very often occurs with Anaphoric Ablative/Genitive demonstrative *okə* ‘from/of that’ with the overall sense ‘after that’ (14).

- (14) [*okə*            *kookɪ̃i=bə*...   *əəm*            *dó-ròo*  
 ANAPH.ABL   back=DAT   ANAPH.ACC   eat-NOMZ:COMPL  
*kookɪ̃i=bə=kú*...]<sub>SC</sub>   [*bulù*   *attɪ̃r=əə*   *doogəə*   *akèn=lo*   *akèn*  
 back=DAT=COMPL   3pl   group=TOP   bed   one=LOC   one

*go=bó      jùp-làa      dóo-tó*]<sub>FC</sub>  
 INDIV=DAT    sleep-NF    lie.down-PERV

After that, **after** finally finishing eating that... they all went to sleep as one in the same bed. (lit., By the **back** of that...by the **back** of the completion of eating of that...)

Given these fairly rich means of indicating relative simultaneity and subsequence in Galo, it is perhaps surprising that there are few means of indicating supporting clause precedence (i.e., ‘before’). The only structure I have attested involves a negated adverbially subordinated supporting clause in Achievement -*dáa*. A rough literal translation would be ‘not yet-ly’ (15). As with all cases of adverbial subordination clauses in Galo, the supporting clause preferentially precedes the main, focal clause.

- (15) [*bool=əə      áa-máa-dáa=bə*]<sub>SC</sub>      [*jòp-còo.*]<sub>FC</sub>  
 ball=TOP    come-NEG-ACHV=SUBORD    jump-FIRST  
 He jumped (to head the ball) **before** the ball came. (lit., ≅ The ball **not** come yet-ly, he jumped first.)

### 2.3. Conditional (Ic)

Conditional linking is most often handled by a marker (-)*boolo*, which seems to reflect fusion of an earlier (now non-occurring) nominalizer \**boo* plus Locative postposition *lo*. In modern Galo, (-)*boolo* occurs as a predicate suffix, as well as an adclausal nominal-subordinating enclitic (not a suffix) with the same semantic value. Most often, (-)*boolo* marks irrealis/hypothetical supporting clause conditions (16); it may also mark counterfactual copula clauses in which a nominalized predicate occurs as perfective copula complement; here too, (-)*boolo* is analyzed as an enclitic (17).

- (16) [*nó    hag<sup>h</sup>-boolo*]    [*hag<sup>h</sup>-rə*]  
 2sg    sigh-COND    sigh-IRR  
 If you sigh, (it too) will sigh.

- (17) [*ŋó    traak=əəm    làa-nà=go=ee=boolo,*]<sub>SC</sub>      [*agér*]  
 1sg    truck=ACC    take-NOMZ:SU=INDIV=COP.PERV=COND    work  
*r<sup>h</sup>-há=ee.*]<sub>FC</sub>  
 do-NOMZ:IRR=COP.PERV  
 If I had bought a truck, I’d have had a lot of work-to-do. [but I didn’t, so I don’t]

(-)*boolo* also marks a supporting clause whose event is not viewed as a condition to be met, but rather as a future/irrealis event which would coincide

with that of the (also future/irrealis) focal clause; such clauses are usually best translated by 'when' (18).

- (18) [izi=nè                      acín                      dó=boolo]<sub>sc</sub>(...) [koodàa batàk=əəm  
now=TMP.IRR.PUNC cooked.rice eat-COND                      balcony flooring=ACC  
rèe-ré.]<sub>FC</sub>  
lay-IRR  
In a minute **when** we've eaten (...) we'll lay out the balcony flooring.

Likewise, an irrealis supporting clause in *-rǎ* which is temporally subordinated in Accusative *ǎəm* (§2.2)—having the literal sense of setting an irrealis context within which an irrealis focal clause is construed to occur—can take on a conditional reading. However, unlike a supporting clause in *(-)boolo*, a clause in *-rǎ=ǎəm* *cannot* give a counterfactual reading. The conditional reading may therefore be viewed here as an emergent property of the literal *irrealis* + *temporally coincident* sense of the overall structure.

- (19) [càa-rûu-lap̚]                      m̥əɔ-r̥ʰ=əɔm]<sub>SC</sub>    [càa-là-r̥ʰ.]<sub>FC</sub>  
ascend-CERT-COMP:PURP/INT   think-IRR=ACC   ascend-ABIL-IRR  
**Should** they definitely want to move in, they'll be able to. (lit., In the unreal/hypothetical case of their definitely wanting to move in...)

### 3. Consequence (II)

### 3.1. Cause (IIc) and Result (IIr)

*Cause* is usually handled via a *nominalized* supporting clause followed by relator noun *lɛgàa* (usually in a Dative oblique). When standing as a head noun (preceded by Genitive-marked modifiers), *lɛgàa* has the context-dependent senses ‘reason’ and/or ‘purpose/benefit’. When following a nominalized clause in absence of genitive marking, it has the sense ‘because’ (20).

- (20) [tór-nam káa-nam ləgàa=bə́]<sub>SC</sub> [bə́-əəm  
be.strong-NOMZ:REAL have/exist-NOMZ:REAL reason=DAT 3sg-ACC  
rí-laacìn jə́ə=cìn rí-túu-làa-máa-diùu.]<sub>FC</sub>  
tie.up.animal-CONC who=ADD tie.up.animal-STOP/DOWN-ABIL-NEG-IMPERV  
Because of [the mithun's] having (such) strength, even if you tie it up,  
no one can tie it down (firmly so that it won't escape).

When following Anaphoric ablative/genitive demonstrative *okà* in a focal clause-introducing oblique noun phrase, *lɔgàa=bà* can be analyzed as having a *result* sense, as [SC;] [*okà lɔgàa=bà*, FC.] ‘[SC;][therefore/that’s why/because of that, FC.]’



Another nominalization-based construction employs the Locative/Oblique nominalizer *-kò* plus Locative postposition *lo*. If the subject is marked in the genitive, this construction would have a spatial sense ‘in the place where’; a nominative subject gives the cause sense ‘because’ or ‘due/owing to’ (21). It is possible that *-kò* and *lo* are in the process of fusing as a specialized marker of this construction, although this cannot at present be demonstrated with certainty.

- (21) [b̥í pá-tó-káa ém-kò=lo]<sub>sc</sub>  
 3sg chop-IMP.ODIR-ADVS tell-NOMZ:LOC=LOC  
 [ŋó pá-dùu-nà=əə]<sub>fc</sub>  
 1sg chop-IMPERV-NOMZ:SU=COP.IMPERV  
 Because he told me to chop (the wood), (that’s why) I cut it. (lit., On his saying “chop the wood”, I chopped it.)

*Direct speech report verb ém-* ‘say; tell’ has extended functionality in Galo, which relates to its ability to refer anaphorically to an entire phrase or clause (*as* a speech report or *as though* it were a speech report).<sup>2</sup> Very generally, it may be translated in this function as ‘(being) thus’; when following realis clauses, it has a causal sense closer to ‘(that fact) being so; because of (that fact)’ (22). The same form is also used in purpose and result constructions (see below).

- (22) [bemar-dóo-nà=əə ém-làa]<sub>sc</sub> [ŋó  
 be.sick(<Hin)-STAT-NOMZ:SU=COP.IMPERV SAY-NF 1sg  
 kùu-dùu-kú]<sub>fc</sub>  
 be.thin.ANIM-IMPERV-COMPL  
 Because of being sick, I’ve become thin. (lit., Saying ‘I’m sick’, I’ve become thin.)

Specialized *result* linking is not well developed in Galo. Other than *okə* *ləgàa=bə* (see above), a variety of constructions headed by nominalized predicates provide bridging (aka ‘tail-head’) clause continuity in addition to an implication of the following clause ‘following from’ the first. Although such constructions have the structure of independent clauses, they have a functional status which is closer to the dedicated syntactic linking forms of other languages, and are more usually translated by consultants via terms like *therefore* and *thus* than via their literal meanings. The most semantically general and commonly attested are *əmbə* *r̥-nam=əə* ‘like.that do-NOMZ:REAL=TOP’ ‘it

<sup>2</sup> See Saxena (1988) for a general overview of quotative constructions in Tibeto-Burman languages, and Noonan (2006) for a discourse-oriented explanation.

having happened like that; therefore; (so) anyway' and *ǵm-nam=ǝǝ* 'say-NOMZ:REAL=TOP' 'that having been said; due to that; therefore' (23).

- (23) *[hiŋt̚¹ deerŋ¹ rə-kən*  
 SPRX.INDIV plains live/exist-GOOD/EASY  
*d̪uu-p̪aa-doo-nà=ɔɔ* *[juu]sc* *[ɔm-nam=ɔɔ*  
 stay-ATTN-STAT-NOMZ:SU=COP.IMPERV REP SAY-NOMZ:REAL=TOP  
*r̪-ləɔ-lèe-làa* *hiŋt̚¹* *r̪-ləɔ-làa]fc*  
 do-GRAD-SSEQ-NF SPRX.INDIV do-DESCEND-NF  
 This plains area was said to be a nice place to live; so (having heard  
 that), we **therefore** gradually filtered down here.

Finally, in a functionally similar use, sentence conjunction *okkəə* often carries a weak result sense which is almost certainly derived from its etymological value ‘from that=TOP ...’ (see §2.1, ex. (8)).

### 3.2. Purpose (IIp)

*Purpose* linking is generally handled by various subtypes of *adverbially subordinated* clause. The most commonly attested and general is based on a predicate (uninflected) stem subordination bearing an Incipient derivation *-tâ*; such constructions are usually best translated via English *to*-complements (24). Finite purpose clauses usually occur in Stative *-dóo* (25).

- (24) [ŋó [bʰi-əəm káa-tà=bə]ₛ꜀ í-n-tó.]ꜱ꜀  
1sg 3sg-ACC look-INCP=SUBORD go-PERV  
I went to see him.<sup>3</sup>
- (25) [ogò=eí jùp-dóo=bə]ₛ꜀ [bulù attír=əə  
ANAPH.LOC=EMPH sleep-STAT=SUBORD 3pl group=TOP  
pár-lʰk-hí-káa.]ꜱ꜀  
divide.up.labour-INTO-REFL-PER  
In order (to make preparations) to sleep *right* there, they all divided themselves into various functions.

It is also possible for a purpose clause to be followed by speech report verb *šm-* 'say; tell'; in this case, the resulting clause takes on a flavour of *both* purpose *and* cause (schematically,  $\cong$  'because to/for...'). This construction is particularly interesting in that it also enables subordination of purposive/intentional complements to supporting main clauses indicating a volitional action (26).

<sup>3</sup> Note that the subordinate clause may be in any position here, potentially preceding the subject or following the predicate (see §1).

- (26) [togùu                      zùr-lapò  
 mithun.sacrifice.ritual priest.perform.ceremony-COMP:PURP/INT  
 ém-làa]<sub>SC</sub> [itò                      bār-dùu]<sub>FC</sub>  
 say-NF      ritual.chant intone-IMPERV  
 In order to perform the ceremony, he intoned a chant. (lit., Saying “I intend to perform the ceremony”...)

In Galo, it seems preferable in most cases to analyze the purpose clause as *supporting* a focal main clause, rather than the reverse (see Dixon, Chapter 1); seemingly, they occur most often to explain or otherwise illuminate the setting for a particular activity. Note that *cause* linkages in Galo often employ a similar grammatical structure, and may be similarly understood: schematically, [because of x]<sub>SC</sub>, [y]<sub>FC</sub> (cause) and [in order to x]<sub>SC</sub>, [y]<sub>FC</sub> (purpose).

#### 4. Possible consequence (III)

Possible consequence is not well developed in Galo. There is no dedicated morphology, and very little in the way of periphrastic expressions which might serve as equivalents. The closest we find is a negative conditional form of speech verb *ém-* ‘say; tell’ (in an anaphoric function; see §3), with the basic sense ‘if not that’ and the implication ‘otherwise; or else’ (27).

- (27) [ogò                      he                      abó-taníi                      nó-kò                      alíi=əə  
 ANAPH.LOC EMPH(<Hin) father-mankind 2SG-GEN clan=TOP  
 nén-ró-nà=əə]<sub>FC</sub>                      [ém-máa-boolo nó  
 progenerate-IRR-NOMZ:SU=COP.IMPERV SAY-NEG-COND 2SG  
 t̥r-ró-kú.]<sub>SC</sub>  
 die.out-IRR-COMPL  
 Then only will your line proceed, Abo Tani; **otherwise** it will be extinguished. (lit., if that is not said...)

In this construction, a possible consequence need not be undesirable. However, the two expressed events should in some way be viewed as mutually exclusive (schematically, for example, *I’ll go; otherwise/(or) if not, he can go*).

#### 5. Addition (IV)

##### 5.1. Unordered (IVu)

*Unordered addition* is usually handled via uninflected *non-final* clause chains. In (2), we find a chain of adjectival non-final predicates describing a set of properties which are unordered for temporality or episodic prominence (and which may be freely reordered or extended indefinitely). The same is possible

for verbal predicates. Although this construction is formally identical to a non-final clause chain depicting event sequences (§2.1), it is usually prosodically somewhat different; in unordered addition, a lilting intonation (often followed by a pause) attends the non-final marker (28).

- (28) [udúu-ǎǎ                      líi-ǎǎk-làa,]                      [udúu-óo  
 bamboo.section-bamboo propagate-INTO-NF bamboo.section-vegetable  
 líi-làa... ]                      [taǎk-takò                      líi-làa... ]  
 propagate-NF fan.palm-pandanus propagate-NF  
 We planted materials for construction<sup>4</sup>... we planted household necessities, we planted plants for domestic use... (and so on).

### 5.2. Same-event (IVs)

*Same-event addition* is also handled by a non-final construction. In this case, however, we are usually dealing with close predicate subordination to another predicate, with the two predicates usually falling under the same intonation contour (i.e. a ‘complex predicate’); it is not entirely clear whether ‘clause linking’ is the appropriate description in this case (29).

- (29) [ŋó izì      mèn-cék-làa]                      [mèn-dùu]      or  
 1sg now speak-SHORTEN-NF speak-IMPERV  
 [mèn-cék-làa                      mèn-dùu]      ??  
 speak-SHORTEN-NF speak-IMPERV  
 I’m just briefly laying (the story) out now (lit., ≅ I’m short-sayingly saying it).

### 5.3. Elaboration (IVe)

*Elaboration addition* involves apposition of two structurally parallel main clauses, which combine to denote different aspects of the same overall event. This is a relatively well-coded construction in Galo, inasmuch as two main clauses would otherwise only very rarely occur in immediate sequence (most Galo clause sequences involve at least one non-main clause). In the canonical form of the construction, the two apposed clauses share all arguments and TAM. The first, supporting clause hosts any overtly expressed noun phrases or adverbials, and generally presents a more “basic” construal of the event. The

<sup>4</sup> The argument noun phrases here consist of semi-lexicalized coordinative compounds in which each element prototypically exemplifies the type denoted by the whole.

second, focal clause usually consists of a predicate bearing a parallel set of inflections, but with a different head; this clause presents an elaboration on what has already been said. Although there is no direct entailment of cause or result, etc., the focal clause in an elaboration apposition would usually be difficult or impossible to interpret in absence of the preceding focal clause; hence, the order of clauses is important in this construction (30).

- (30) [roksín=əə      ò-lòo-ée-kú-báa]<sub>sc</sub>  
 chicken.liver=TOP fall-DESC-AWAY-CMPL-PERV.DRCT  
 [ŋée-kú-báa]<sub>fc</sub>  
 be.lost-CMPL-PERV.DRCT  
 (I experienced that) the chicken liver fell; (I experienced that) it got lost.

#### 5.4. Contrast (IVc)

*Contrast addition* is relatively rich in Galo. The typical construction involves suffixation of one of two (basically synonymous) Concessive markers (-)dakkòm or (-)laacìn to a supporting clause predicate (31). It is also possible to use either Concessive suffix together with speech verb *ém-* (§3), effectively deriving a dedicated linker which is a functional constituent of the focal clause (32). As with Conditional linker (-)boolo (§2.3), both Concessive markers may be used as adclausal subordinating enclitics to an anaphorically referring pronoun, as *əgò dakkòm/laacìn...* ‘that (fact) notwithstanding...’. Historically, (-)dakkòm and (-)laacìn derive from similar fusions of predicate inflections with Additive particles—in the case of (-)laacìn, Non-final suffix -làa plus Additive particle *cìn*, and in the case of (-)dakkòm, Change of state suffix -dàk plus the Minyong-derived particle *kòm* ‘Additive’.<sup>5</sup>

- (31) [èn-cém-máa-dakkòm]<sub>sc</sub> [ŋó dó-mùm-dùu.]<sub>fc</sub>  
 feel-LIKE-NEG-CONC 1sg eat-ONLY-IMPERV  
 Although I don’t like it, I just go ahead and eat it.
- (32) [nunù ardə-máa-dóo]<sub>sc</sub> [ém-laacìn tazí-kú-máa!]<sub>fc</sub>  
 2pl clever-NEG-STAT say-CONC believe-COMPL-NEG  
 You (young folks) aren’t so clever, and yet you don’t believe us! (lit.,  
 You aren’t so clever; despite that being said, you don’t believe us!)

Additive concessive suffix -gərə, when occurring within a predicate which clearly forms an element of a narrative sequence, usually contributes to a

<sup>5</sup> In some Galo dialects, loanword *kòm* and native *cìn* freely vary, while in the variety of Lare Galo being described here, only native Galo *cìn* occurs as an Additive particle. It would thus seem that the presence or absence of the Additive particle source formative in a given Galo dialect has no bearing on the presence or behaviour of the Concessive linker (-)dakkòm.

sequential reading ‘and then/moreover’ (§2.2). However, when marking a supporting clause which contrasts thematically with a following focal clause (often, when they are headed by the same predicate in different polarities), its sense is in turn contrastive ‘and yet’ (33).

- (33) [zoon=gə agóm=əəm tà-gərǎ]<sub>SC</sub> [ŋó-kǎ agóm=əəm tà-máa.]<sub>FC</sub>  
 NAME=GEN speech=ACC obey-ACNC 1SG-GEN speech=ACC obey-NEG  
 So you’ll do what John tells you to do, **and yet** you won’t listen to me (is that how it is?).

Finally, a relatively rare predicate/clause marking particle *daram* ‘although’ is also available as a supporting clause contrast marker. Semantically identical to the Concessive suffixes exemplified above, it has the ability to mark a finite clause, but cannot occur as a predicate suffix (34). The etymology of *daram* is not yet certain, although it may derive from a fusion of Galo Contrastive particle *da* (cf. the focal clause of (34)) with an earlier but currently non-productive subordinating morpheme.

- (34) [turgí káa-máa=ee *daram*] [arúm go=da  
 roofpost have/exist-NEG=COP.PERV CNCS.DISJ evening INDIV=CNTR  
 túr-làa rǎ-káa-làa] [óm-làa mǎə-dàk]  
 be.alive-NF live/exist-TENT-NF say-NF think-COS  
**Although** I’ve got nothing left to lean on, (seeing you) I think I’ll try to make it through one more night.

## 6. Alternatives (V)

### 6.1. Disjunction (Vd)

Galo exhibits *only closed disjunction*; open disjunction—to the extent that it exists—may only be inferred from repetition of several clauses involving closed disjunctions, often with a lilting intonation as though to imply that “and yet more such alternatives might well be adduced”. A disjunction linkage is most often derived from apposition of a positive polarity clause to a negative polarity clause (always in that order) of the same basic syntactic form (35).<sup>6</sup> If the apposed clauses may be otherwise construed as opposites, they may share the same polarity (36). The construction seems to be limited

<sup>6</sup> This basic construction is found in other Tibeto-Burman languages of north-east India, such as Garo (Burling 2004: 314), as well as, seemingly, in Austronesian languages (Gallagher and Baehr 2005: 133, cited in Dixon (Chapter 1)).

to expressions of wondering and/or questioning, and both clauses are obligatorily marked by an appropriate epistemic particle such as *dii* ‘Wonderment’ *com* ‘Guess’ *bəree* ‘Conjectural’ or *ree* ‘Polar question’. A syntactic marker of disjunction *máa* (homophonous with the negator *máa* ‘no’) optionally marks the coordination (36).

- (35) [hilò-məròo      ɲə̀ə-kə      omèe=əə      záp-dàk-nà=əə  
 today-yesterday 1refl-GEN kid=TOP talk-COS-NOMZ:SU=COP.IMPERV  
*bəree*] [záp-máa-nà=əə      *bəree*]  
 CJEC talk-NEG-NOMZ:SU=COP.IMPERV CJEC  
 Nowadays, do you reckon our kids speak (Galo properly) or not?
- (36) [rɔ́-kèn-jàa-rɔ́      *dii*      *máa*]  
 live/exist-GOOD/EASY-COMPAR-IRR WONDER NEG  
 [rɔ́-nèk-jàa-rɔ́      *dii*]  
 live/exist-BAD-COMPAR-IRR WONDER  
 Will life be **better** or... will it be **worse**?

It is worth noting that inasmuch as the Galo construction is limited to cases of wonderment or questioning, it does not directly refute statements made on this topic in Dixon (Chapter 1) to the effect that closed disjunction is logically a somewhat artificial linguistic construct, since cases considered by Dixon in this context mainly concern declarative clauses (i.e., situations in which one is *asserting* that in such-and-such a case, only two options are available). I have not been able to attest a construction which clearly represents disjunct declarative alternation in Galo; the closest approximation would be a periphrastic construction of the form ‘*x*; if not that, *y*’; i.e., ‘*x* ; otherwise, *y*’ (see §4, (27)).

## 6.2. Rejection (Vr) and Suggestion (Vs)

Rejection is not well represented in Galo grammar, neither as the content of a clause linking construction nor as the function of an adjunct noun phrase (such as *instead of Mary*). Most functionally comparable constructions are monoclausal, and involve the use of applicative predicate derivations; schematically, *I’ll go-instead-of you* (in which *you* is an added syntactic O).

Suggestive speech-act functions are similarly handled monoclausally, via predicate inflections and/or particles such as Proposal modal inflection *-dèe* and Inclusive hortative particle *zù*, among others. Their existence may at least in part explain the lack in Galo of relevant biclausal constructions.

## 7. Manner (VI)

Real and hypothetical manners are both handled by adverbial subordinations in Galo. As was also noted in §1, adverbial subordinator *bə* is homophonous with the Dative marker *bə*, and Dative *bə* also marks noun phrases with semantic similarity to manner clause subordinations, such as Translative complements of becoming (*he became (as) a dog*), Similitive complements of perception or cognition (*I think of him as a fool*), and as a marker of oblique nominalized clauses expressing manner ( $\cong$  *It went along hoppingly*).

As an adjectival enclitic, Adverbial subordinator *bə* derives a manner adverbial. As marker of a finite clause in Imperfective *-dùu* or Negative *-máa*, it derives a manner subordination; both types appear in (37).

- (37) [ácc-accôo=*bə*      [nii      káa-pàa-kò-máa=*bə*]<sub>sc</sub>      uliùu=lo  
 RDUP-quiet=AVZR    person    look-ATTN-RVS-NEG=SUBORD    boat=LOC  
 áa-ée=káa]<sub>FC</sub>  
 enter-IMP.AWAY=ADVS  
 Go carefully to the boat without being seen by anyone. (i.e.,  $\cong$  **in such a manner as to** not be seen)

Hypothetical manner is built on the same basic set of constructions, but involves a distinct predicate type *garɿ* ‘resemble’. One of the strangest lexemes in the language, *garɿ* takes two unmarked nominal arguments—resembler and resembled—neither of which may take any case marking. *garɿ* may stand as predicative head of a finite clause *or* as copula complement (the only bivalent predicate in the language with this capacity); however, it is more often found subordinated in *bə* (38) (cf. also (3)).

- (38) [ɲunù=əəm    jaamée    gadə=əə    mèn-zí-laacín    [mɔ́-nà  
 1pl=ACC    boy    group=TOP    speak-BEN-CONC    lie-NOMZ:SU  
 garɿ=*bə*=í]      tá-dàk-kú.]  
 resemble=SUBORD=emph    listen-COS-COMPL  
 Even if we tell it to them, young people listen to us just **as though** we were liars.

## 8. A note on bridging linkage

In §1, it was noted that adsentential nominalized clauses often provide ‘background’ information with respect to the event depicted in a final clause. The most commonly attested use of such nominalized clauses by far is in what is in this volume called ‘bridging’ (aka ‘tail-head’) linkage. In the Galo



construction—described as a ‘framing clausal nominalization’ in Post (2007)—a clausal nominalization in Realis event/action nominalizer *-nam* precedes a main clause in a ‘Topic slot’, also obligatorily marked in Topic marker *əə*. Often, the framing nominalization repeats or recapitulates information contained in the preceding (usually final) clause predicate (39). Or it may be headed by a semantically ‘light’ verb *rɪ*- ‘do’ or *ám*- ‘say’ (both of which refer anaphorically to preceding events) (40).

- (39) *okə kookɪ=bə bulù áúm=əə jùp-tà=bə*  
 ANAPH.ABL back=DAT 3pl three=TOP sleep-INCP=SBRD  
*áa-póm-tó-kú. áa-làa jùp-tà-nam=əə...*  
 COME-AS.GROUP-PFV-COMPL come-NF sleep-INCP-NOMZ:REAL=TOP  
 After that the three of them came together to sleep. After coming to sleep ... [lit., their having come to sleep being the case...]

- (40) *borík jòo! acín dó-kò zàa=lo upái*  
 Borik what cooked.rice eat-NOMZ:LOC CERT=LOC means(<Asm)  
*káa-máa! rɪ-nam=əə ɣunù namá hogò*  
 have-NEG do-NOMZ:REAL=TOP 1pl house SPRX.LOC  
*ì-làa-kú...*  
 descend-NF-COMPL  
 Borik, oh, man! When it comes to eating rice, there’s no stopping him!  
 Anyway, we came back down here and ... (lit., That having happened being the case...)

The function of framing nominalizations is basically one of *discourse continuity*, marking a *transitional point* between one episode and another. Inasmuch as the events described from one episode to another are thematically related—and their common relationship to an overall narrative line is discernible—a framing clausal nominalization can take on overtones of *temporal succession* and *cause/result*. However, such overtones are probably not best described as *clause linking structures* in the strict sense; rather, what is ‘linked’ here is *entire discourse episodes*.

## 9. Conclusion

The number of dedicated syntactic clause linkers is extremely small in Galo; most seem to derive from the set of anaphoric demonstratives. The bulk of clause linking functions are handled by *predicate morphology* and/or by particular *predicate/clause subordinating constructions*, chief among them *non-final* and *adverbially subordinated* clauses. Predicate stem-internal deriv-

ations and word-level inflections may also play roles, particularly in the establishment of relative temporal and procedural event relations.

Outside the predicate, *postpositions* whose primary functions relate to *noun phrase relational marking* also perform clause linking functions, and a small number of *relator nouns* (also principally noun phrase constituents) are able to link one nominalized clause to another clause (of any type). Almost all such constructions mark supporting clauses.

In addition, *periphrastic expressions* exist which usually represent conventionalized forms of non-final, subordinated or nominalized predicate-headed constructions; often, they employ semantically 'light' heads such as *ɾɿ*- 'do' and *ʒm*- 'say' and produce meanings like 'that being so' and 'it having happened like that'. Such constructions may develop causal and/or temporal implications; however, care must be taken to recognize when these are analyzable as clause linkers in the strict sense, and when they may be better described as *discourse-level* linkers which only resemble clause linkers in terms of some implied, rather than inherent, semantic features.

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# The Semantics of Clause Linking in Kham

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## 1. Language background

The language treated in this chapter is the Takale dialect of Kham (spoken in Taka village), something of a lingua franca in Kham territories. Kham is a complex of Tibeto-Burman languages centered primarily around a knot of 4,000-metre ridges at the western end of the Dhaulagiri Massif in the remote highlands of Rukum and Rolpa Districts, ‘Mid-western Nepal’, and in the north-western corner of Baglung District. The total population of all dialects is estimated to be about 60,000 speakers. The language is vigorous in all domains of life; most pre-school children speak only Kham, and there are more speakers now than ever before.

Kham was not known in the outside world before I began my work in 1970. Following its discovery, it has been classified in the ‘Central Himalayish’ branch of Tibeto-Burman—a sister branch to East Himalayish, also known as ‘Kiranti’. The two branches are offshoots of a single Himalayan super-stock.

## 2. Typological profile

### 2.1. *Word classes*

Major word classes in Kham include nouns, verbs, and a rather broad class of words generally termed as adverbs, including ‘deictic primitives’ and ‘dimensional adverbs’ (from which all kinds of locative expressions, temporal adverbs, and demonstratives are formed); and ‘expressive adverbs’, styled as rhyming couplets (like *kyasya kisi*) that modify generic verbs like ‘go’ to yield meanings like ‘saunter’, ‘stride’, ‘stomp’, ‘stalk’, ‘limp’, etc.

Adjectives and demonstratives are for the most part derived classes. Verbs are of several subclasses, each with its own unique morphological and syntactic

characteristics—intransitive verbs include a meteorological class, an  $S_a$  class, an  $S_o$  class, a stative-descriptive class (from which most adjectives are derived), and a ‘deponent’ class with inherent middle marking. Transitive verbs have obligatory agreement with A and O, and can be active or stative. Ditransitive verbs have obligatory agreement with A and E, but never with O.

## 2.2. Morphology

- Nominal morphology—Kham is highly agglutinative with a rich morphology. Nouns are inflected for a single prefixal position (possession or, with a few nouns, a classifier numeral), and five suffixal positions, most of which are instantiated by local case markers, eleven in all. In addition, nouns are marked for three numbers, for a genitive which operates inside the NP, and for certain grammatical cases—ergative, instrumental, primary object (which includes the dative), and associative.
- Verbal morphology—Verbs are inflected for five prefixal positions and seven suffixal ones. Kham exhibits what has been referred to in the literature as ‘pronominalizing’ morphology. That is, in addition to marking the categories of tense, aspect, and modality, verbs also cross-reference the person and number of clause-level referents—for Kham, S/A and O (or E for ditransitive verbs). Also part of verbal morphology are fairly elaborate derivations related to transitivity and voice.

## 2.3. Constituent order

Kham has a basic constituent order of AOV, SV in both main and dependent clauses. The attendant ‘harmonic orders’ in phrase-level syntax also occur: DemN, NumN, GN, AN, and RelN (where for Kham, A is a type of RelCl). A non-restrictive order for modification in NPs, a kind of appositive, also occurs in which the order of all constituents but DemN and GN are reversed to NNum, NA, and NRel. Equative clauses are verbless (except in the negative), with the predicating NP occurring in apposition to the topical NP.

## 2.4. Nominalization

Nominalization is a major syntactic device in Kham, and operates at all levels of the grammar. Nominalizations constitute a ‘relative clause strategy’, and all clauses embedded as sentential complements are nominalizations. Nominalization also plays an important role in the semantics of clause linking. Even main, independent clauses can be nominalized, and, as such, have special discourse functions.

### 2.5. *Clause chains*

Clause chains are ‘co-subordinate’ structures in Kham and differ significantly from the subordinate structure of complements (which are always nominalized). In clause chains, tense/aspect and person/number information is marked on the chain-final verb, and chain-medial verbs are marked with varying degrees of person inflection depending on whether the subject participant of the following clause has coreferentiality with the current clause.

## 3. Clausal structures

The identification of main and non-main clauses is important to the distinction of clause linking in Kham. Structurally, clauses fall into five major types ranging from independent clauses with fully inflected verbs, to dependent clauses with little or no verbal inflection. Of the five types only four are relevant to our discussion here. (The irrelevant category is made up of nominalized structures that lack person/number inflection in the verb—category (3) in Table 1. For a brief discussion see Watters 2002: 201–2.)

### 3.1. *‘Standard’ independent main clauses with fully inflected verbs*

The determination of a clause’s structural type in Kham is based on the form of its verb, not on the overt realization of its NP arguments. Presupposed NPs are elipted, but they are easily recovered from obligatory person/number marking in the verb. Fully inflected verbs, at a minimum, are marked for the person and number of one or two arguments (S if intransitive, A and O if transitive, A and E if ditransitive) and for tense/aspect/modality.

In the ‘standard’ (non-nominalized) conjugation, first and second person subjects are prefixed, while third person subjects are suffixed. The opposite arrangement holds for objects—first and second persons are suffixed, while third persons are prefixed.

TABLE 1. The five major grammatical clause types

| Type                       | Major Properties                              |
|----------------------------|---|
| 1. Independent main clause | Fully inflected verb                          |
| 2. Nominalized clause—1    | Verb inflected for person and number          |
| 3. Nominalized clause—2    | Uninflected verb (irrelevant to this chapter) |
| 4. Chain medial clause—1   | Uninflected verb                              |
| 5. Chain medial clause—2   | Verb inflected for S or A only                |

- (1) FIRST and SECOND PERSONS (A . . . O):

nə-poh-na-ke  
 2sg<sub>A</sub>-hit-1sg<sub>O</sub>-PERV  
 You hit me.

- (2) THIRD PERSONS (O . . . A):

ya-poh-ke-o  
 3pl<sub>O</sub>-hit-PERV-3sg<sub>A</sub>  
 He hit them.

### 3.2. Nominalized clauses with verbs fully inflected for person/number

The verb in a nominalized clause, as in the standard conjugation, is inflected for the person and number of one or more core participants (depending on its level of transitivity), but the morphosyntactic configuration is different. In the nominalized paradigm, *all* subject markers are prefixed, including third persons. The following examples give the nominalized forms of the verbs shown in (1) and (2). The most radical difference is with third persons—the difference between (2) and (4):

- (3) FIRST and SECOND PERSONS (A . . . O):

nə-poh-na-o  
 2sg<sub>A</sub>-hit-1sg<sub>O</sub>-NOMZ  
 You hit me.

- (4) THIRD PERSONS (A . . . O):

o-ra-poh-wo  
 3sg<sub>A</sub>-3pl<sub>O</sub>-hit-NOMZ  
 He hit them.

These nominalizations are used in complement clauses that do not share subject arguments with the matrix clause, as in:

- (5) [kwa o-che-zya-o]<sub>O</sub>      ŋa-Ø-rĩh-ke  
 cloth 3sg-wash-CONT-NOMZ 1sg-3sg-see-PERV  
 I saw her washing clothes.

and also in non-subject relative clauses that modify the object or some peripheral argument in the clause:

- (6) [ŋa-lai ya-poh-na-o]<sub>RelCl</sub> chyam  
 I-ACC 3pl-hit-1sg-NOMZ day  
 the day they beat me

This nominalized structure is also used in fully independent, stand-alone predications that mark ‘backgrounding’ or ‘stage setting’ in a discourse:

- (7) ahjya uhbyali-kə geː nahm-ni ge-hu-zya-o  
 last spring-LOC we low.country-ABL 1pl-come-CONT-NOMZ  
 Last spring we were coming up from the low country.

Nominalized verb forms can, and often do, form a structural framework for clause linking devices, one in which a local case marker replaces the nominalizer, and the other in which a local case marker is suffixed to the nominalizer. In the following examples, the ‘elative’ <ELAT> suffix *-kin* is bonded to a nominalized structure—it replaces the nominalizer in (b) and follows it in (c):

- (8) (a) NOMINALIZED FORM:  
 o-ba-o  
 3sg-go-NOMZ  
 He went.
- (b) REPLACING THE NOMINALIZER:  
 o-ba-kin  
 3sg-go-COND  
 if he goes
- (c) SUFFIXED TO THE NOMINALIZER:  
 o-ba-o-kin  
 3sg-go-NOMZ-ELAT  
 since he left/after he goes

### 3.3. *Uninflected medial verbs in clause chains*

Verbs in medial clause constructions can occur with or without person/number inflection depending on the referential status of the subject in the following clause. Inflection is suspended where the S or A of the following clause is coreferential with the S or A of the current medial clause (as illustrated in (9)). Reference is cataphoric. In such cases, the only marking on the medial stem is a ‘non-final’ <NF> marker *-də*. (See §4.1.1 on ‘same-subject clause chains’.)

- (9) [sohm-də]<sub>MED</sub> [sə-thĩ-də]<sub>MED</sub> [cip ge-Ø-jəi-ye]<sub>FINAL</sub>  
 scald-NF CAUS-dry-NF side.dish 1pl-3sg-make-IMPERV  
 Scalding and drying it we make a side-dish (of it).

### 3.4. *Clause chains with medial verbs inflected for person/number*

Verbs in medial clause constructions can also be fully inflected for person/number, but only if the S or A argument of the following clause is *different*

from the S or A argument of the current medial clause. An example is given in sentence (11b).

### 3.5. *Linking markers*

Most explicitly linked clauses in Kham make use of locative and case marking suffixes, the same affixes as those employed in the nominal system (see Table 2). The affixes attach to two different kinds of syntactic structures—either directly to the verb stem, or to a nominalized verb stem:

- (10) (a) TYPE- A:  
           VERB STEM—CASESUFF  
       (b) TYPE- B:  
           VERB STEM—NOMINALIZER—CASESUFF<sup>1</sup>

There appears to be no principled reason why some semantic linking types use Type A structures and others use Type B. Both types mark time adverbials, conditionals, and concessives, while Type B also includes ‘consequence’.

The versatility of the case marking suffixes, both their nominal and verbal usages, is shown in Table 2.

It is not difficult to see the relationship between locative suffixes affixed to nouns and those affixed to verbs—in the former case the suffix specifies location in physical space, and in the latter it specifies location in time. Likewise, an approximation of physical amount (*-wa*) equates to an approxi-

TABLE 2. Versatile case marking suffixes in nominal and verbal contexts

| Suffix    | Case Name   | As a Noun Suffix | As a Verb Suffix            |
|-----------|-------------|------------------|-----------------------------|
| -kə       | LOCATIVE    | at               | when/while                  |
| -tə       | SUPERESSIVE | on               | as soon as                  |
| -kin      | ELATIVE     | away from        | if                          |
| “         | “           | “                | after (with nominalization) |
| “         | COMPARATIVE | compared to      | before, after               |
| -wa       | APPROX      | about            | as long as/as much as       |
| -pəi      | LATIVE      | up to            | until                       |
| -da       | ALLATIVE    | to               | provided, first this...     |
| -e        | ERG/INST    | (agency)         | because...                  |
| -ni       | ABL/MED     | from             | by means of, through        |
| -e jū:-ni | BENEFACTION | for the sake of  | in order to                 |

<sup>1</sup> I use CASESUFF as a cover term to refer to any of the following—locative, adessive, inessive, superessive, cisative, allative, ablative, elative, delative, comparative, lative, orientative, approximative, comitative, ergative, instrumental, and mediative.



mation or duration of time, and distance ‘up to’ a particular location equates to an extension to a point in time.

The relationship which holds between a spatial elative (‘away from’) and a conditional reading is cross-linguistically more rare, but still follows from a reasonable semantic inference—‘if’ comes *from* a potential but unrealized state or event.

The ergative/instrumental and the ablative/mediative, when affixed to a nominalized verb, name the subevent in the supporting clause as the ‘cause’ in some larger macro-event, and benefaction marks it as ‘purpose’.

#### 4. Grammatical marking of semantic clause linking types

The structures described briefly in §3 will figure regularly in the semantic classification of clause linking. But because there is no isomorphic relationship between those structures and the universal semantic categories of clause linking (Addition, Alternation, Contrast, etc.), I will treat them first as language-internal coherent structures, and then apply the structures to semantic and pragmatic notions. The disconnect will become obvious. The semantic category Addition, for example, will use non-inflecting structures (§3.3) when there is participant continuity between the supporting clause and the focal clause, and inflecting structures (§3.4) when there is *dis*-continuity.

For Kham, where the semantic link between two interdependent clauses is overtly marked, the marker almost always associates with the supporting clause, and the supporting clause is almost always the first clause in the sequence. In the very few cases where the supporting clause occurs last (see examples (34) and (35)) the marker also occurs last.

Throughout the rest of this chapter, the order in which the various semantic types are presented will be determined largely by the relative ordering of the supporting clause and the focal clause, as shown in Table 3. In Table 3, the column headed by ‘Type’ indicates a Type-A or Type-B structure (see (10).)

##### 4.1. *Temporal clauses*

4.1.1. *Temporal succession (Is)* Temporal succession implies a sequence of events and is marked primarily in Kham by clause chains. Though such structures would not be inappropriate in the section on Addition, they are better suited here under the overall structure of Temporal Succession.

- **Same-subject (SS) clause chains**

The basics of same-subject clause chains have already been discussed in §3.3. The primary requisite is that the medial verb occur as a bare stem followed by

TABLE 3. An overview of clause linking strategies in Kham

| Type                             | Section and examples | Ms Marker   | Mf Marker | Clause order |
|----------------------------------|----------------------|-------------|-----------|--------------|
| <b>Is—Temporal succession</b>    |                      |             |           |              |
| A                                | §3.3 (9)             | -də         | Ø         | SC first     |
| A                                | §4.1.1 (11b)         | -kə te      | Ø         | SC first     |
| A                                | §4.1.1 (12)          | -kə         | Ø         | SC first     |
| B                                | §4.1.1 (13)          | -tə         | Ø         | SC first     |
| <b>Ir—Relative time</b>          |                      |             |           |              |
| B                                | §4.1.2 (14)          | -tə         | Ø         | SC first     |
| B                                | §4.1.2 (15)          | -kin        | Ø         | SC first     |
| B                                | §4.1.2 (16b)         | -kin chū-ni | Ø         | SC first     |
| B                                | §4.1.2 (17)          | -kin ŋah-da | Ø         | SC first     |
| A                                | §4.1.2 (18)          | ŋa-ma-V-də  | Ø         | SC first     |
| A                                | §4.1.2 (19)          | -wa         | Ø         | SC first     |
| A                                | §4.1.2 (20)          | -wa-pəi     | Ø         | SC first     |
| <b>Ic—Conditionals</b>           |                      |             |           |              |
| A                                | §4.1.3 (21)          | -kin        | Ø         | SC first     |
| B                                | §4.1.3 (22)          | ta-kin      | Ø         | SC first     |
| B                                | §4.1.3 (23)          | -kin-da     | Ø         | SC first     |
| N/A                              | §4.1.3 (24a)         | -da         | Ø         | SC first     |
| N/A                              | §4.1.3 (24b)         | -da         | Ø         | SC first     |
| <b>Iic—Consequence</b>           |                      |             |           |              |
| A                                | §4.2.1 (25a)         | -ye         | Ø         | SC first     |
| A                                | §4.2.1 (25b)         | -ni         | Ø         | SC first     |
| <b>Iip—Purpose</b>               |                      |             |           |              |
| N/A                              | §4.2.2 (26)          | jū-ni       | Ø         | SC first     |
| N/A                              | §4.2.2 (27)          | li-də       | Ø         | SC first     |
| <b>IVc—Concession</b>            |                      |             |           |              |
| A                                | §4.3 (28)            | -di bə      | Ø         | SC first     |
| B                                | §4.3 (29)            | -tə bə      | Ø         | SC first     |
| <b>Vs—Alternative suggestion</b> |                      |             |           |              |
| A                                | §4.4 (30)            | dekha       | (buru)    | SC first     |
| <b>VI—Manner</b>                 |                      |             |           |              |
| N/A                              | §4.5.1 (31)          | kitao       | hitao     | SC first     |
| B                                | §4.5.2 (32)          | mitao       | Ø         | SC first     |
| <b>III—Possible consequence</b>  |                      |             |           |              |
| N/A                              | §4.6.1 (33)          | Ø           | Ø         | FC first     |
| N/A                              | §4.6.2 (34)          | Ø           | ma-ni     | FC first     |
| N/A                              | §4.6.2 (35)          | Ø           | kəsa      | FC first     |

TABLE 3. (Continued)

| Type                 | Section and examples | Ms Marker           | Mf Marker      | Clause order |
|----------------------|----------------------|---------------------|----------------|--------------|
| <b>IV—Addition</b>   |                      |                     |                |              |
| N/A                  | §4.7.1 (36)          | məni                | məni           | Coordination |
| N/A                  | §4.7.2 (37)          | taki tərə           | taki tərə      | Coordination |
| N/A                  | §4.7.3 (38)          | ehn                 | ehn            | Coordination |
| N/A                  | §4.7.4 (39)          | Ø                   | te             | Coordination |
| N/A                  | §4.7.4 (40)          | Ø                   | Ø              | Coordination |
| <b>V—Alternative</b> |                      |                     |                |              |
| N/A                  | §4.8.1 (41)          | Ø səi               | Ø              | Coordination |
| N/A                  | §4.8.2 (42)          | ta-kya              | ta-kya         | Coordination |
| Proforms Type        | Section and examples | Preceding discourse | Current clause | Clause order |
| N/A                  | §5.1 (43)            | Ø                   | həi jəi-də     | SC first     |
| N/A                  | §5.2 (44)            | Ø                   | həi-di bə      | SC first     |
| N/A                  | §5.2 (46)            | Ø                   | hitao-tə bə    | SC first     |
| N/A                  | §5.3 (47)            | Ø                   | hu-kin         | SC first     |

the non-final <NF> marker *-də*. Where this occurs we get something analogous to an English sentence like *Scalding and drying it we make a side-dish of it* (as shown in (9)).

There is no formal distinction between sequential events in a chain and simultaneous events. The interpretation of the temporal relationships that hold between events is based on semantics and pragmatics.

#### • Different-subject (DS) clause chains

Different-subject clauses are marked by the suffix *-kə* and are historically related to the subordinating verbal suffix translated ‘when’. Some have observed (see, for example Nichols 1983) that different-subject markers originating as subordinating particles often mark ‘open reference’ rather than different subject. That is, they are ‘indifferent’ as to the coreference of the subject. For Kham we get the following strong tendencies:

- (i) *-kə* verbs with the continuous *-zya* tend to be time adverbials signaling both temporal simultaneity and subject continuity, as in (11a).
- (ii) *-kə* verbs that signal different subject are almost always followed by the contrastive focus particle *te*, as in (11b).

#### (11) (a) ADVERBIAL INTERPRETATION:

[zihm u-si-zya-kə]<sub>ADV</sub> kwici tubu dəi-ke-o  
 house 3sg-sweep-CONT-LOC ring one find-PERV-3sg  
 While she was sweeping the house she found a ring.

## (b) DIFFERENT-SUBJECT INTERPRETATION:

[“ao zə,” həi li-də, həi o-ra-do-kə te]<sub>DS</sub> lā-ke-rə  
 this EMPH thus say-NF thus 3sg-3pl-say-LOC FOC take-PERV-3pl  
 “This is it,” saying, when he told them, they took it.

Though medial verbs marked by *-də* occur most frequently *without* person/number inflection and belong to *same*-subject chains, there is one special case in which *-də* occurs *with* person/number inflection (for a subject only) and marks a *different*-subject chain. (Negation is obligatorily a part of such constructions.) The construction codes a temporal notion—‘Before *x* happened *y* happened’ (see §4.1.2, example (18)).

Taking this special case into consideration, then, there is a sense in which the relevant parameter for SS versus DS is not *-də* vs. *-kə*, but rather the presence or absence of person/number inflection, as shown in Figure 1 (see also Aikhenvald, Chapter 5).

We come away, then, in essence, with Haiman’s (1983) general formulation for switch reference in coordinate structures—DS:SS = agreement marker : Ø.

- While

There are two types of ‘while’ clauses in Kham, one formed by the Type-A structure shown in (10a) and the other by the Type-B structure shown in (10b). The first is formed by affixing the locative suffix to the verb stem in continuous aspect. The sense of this construction is a general ‘when/while’:

- (12) [[ŋa-pā-zya]<sub>sc</sub>-kə]<sub>Ms</sub> zə, hu-ke  
 1sg-speak-CONT-LOC EMPH come-PERV  
 While I was speaking, he came.

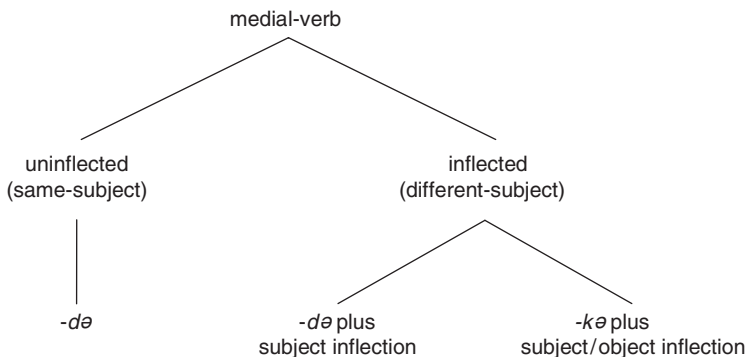


FIGURE 1. Medial verbs and ‘switch reference’ in Kham

The second is formed by adding the superessive <ON> to a nominalized version of the verb (a Type-B structure). The sense of this construction is ‘at the precise moment of’:

- (13) [[həi ya-li-zya-o]<sub>sc-tə</sub>]<sub>Ms</sub>      zə,      nuhl      ta-ke  
 thus 3pl-say-CONT-NOMZ-ON    EMPH    destruction    be-PERV  
 While they were yet speaking, destruction happened.

4.1.2. *Relative time (Ir)* Dixon (Chapter 1) mentions two parameters in relative time: (1) whether the reference is to a point in time or to a longer duration of time, and (2) whether the time in the supporting clause is past, present, or future relative to the time in the focal clause. Kham makes a further distinction about whether the succession of events is immediate or delayed.

- **As soon as, upon**

The relative time structure described here, ‘as soon as’, is related to the Type-B structure shown in (13), but without the continuous aspect marker. It implies that the action of the focal clause begins immediately after the completion of the action in the supporting clause:

- (14) [[kã: u-zyu-wo]<sub>sc-tə</sub>]<sub>Ms</sub>      ba-ke  
 meal 3sg-eat-NOMZ-ON      go-PERV  
 As soon as he ate his meal, he left. (lit., ‘upon eating his meal’)

- **Since**

The ‘since’ clause also makes use of a Type-B structure (similar to what we saw in (14)), but here the nominalized verb is followed by the elative marker *-kin*:

- (15) [[o-ba-o]<sub>sc-kin</sub>]<sub>Ms</sub>      ma-hu-i  
 3sg-go-NOMZ-ELAT    NEG-COME-IMPERV  
 Since going he has not come back.

- **‘After’ comparative**

Both the ‘after’ and ‘before’ comparative constructions are modeled on the simple comparative. The base is a Type-B structure like the ‘since’ construction in (15)—a nominalized verb followed by *-kin* (though *-kin* here is used as a comparative).<sup>2</sup> Following *-kin* is the relator noun ‘behind, following’. To give some sense of how it relates to the comparative, I give the comparative construction in (16a) followed by the ‘after’ construction in (16b):

<sup>2</sup> Additional support for the ‘comparative’ interpretation is that Kham speakers, when giving a Nepali translation of these sentences, consistently use the Nepali comparative *bhānda*.

- (16) (a)  $\eta a\text{:kin}$   $ch\ddot{u}\text{-ni}$   $hu\text{-ke}$   
 I-COMPAR after-ABL come-PERV  
 He came after I did./Compared to me, he came after.
- (b)  $[[je\text{-khem-o}]_{sc}\text{-kin}$   $ch\ddot{u}\text{-ni}]_{Ms}$   $nah\text{-si-c-yo}$   
 2pl-finish-NOMZ-COMPAR after-ABL rest-REFL-2pl-IMP  
 Rest after you (pl) finish!

- ‘Before’ comparative

Like the construction in (16b), the ‘before’ construction is built on the comparative. The difference is in the relator noun that follows—here it is ‘before’ instead of ‘after’:

- (17)  $[[bahrna\ je\text{-rihm-o}]_{sc}\text{-kin}$   $\eta ah\text{-da}]_{Ms}$   $l\ddot{u}\text{:r}\ddot{a}$   $r\ddot{a}i\text{-cy-o}$   
 wall 2pl-lay-NOMZ-COMPAR before-ALL stone-PL bring-2pl-IMP  
 Before you (pl) lay the wall bring the stones!

- ‘Before’ expressed in a clause chain

A second construction denoting ‘before’ is expressed by a DS verb chain marked by *-də* and accompanied by subject agreement on the verb (see Figure 1). These constructions also require a negative marker, and the anterior interpretation results from the fact that relative to the timing of the event in the focal clause (‘his dying’ in (18)) the event in the supporting clause was still a non-event (‘my coming’)—literally, ‘I not having arrived, he died’ (= before I arrived, he died).<sup>3</sup> The implication is that I have arrived now, but that I had not yet arrived at the time of his death.

- (18)  $[\eta a\ \eta a\text{-ma-hu-d}\ddot{a}]_{sc}$   $z\ddot{a}$   $si\text{-ke}$   
 I 1sg-NEG-COME-NF EMPH die-PERV  
 Before I came he died./I not having come, he died.

- As long as

The adverbial clause denoting ‘as long as’ makes use of the approximative marker *-wa* immediately following the verb stem in a Type-A construction.<sup>4</sup> The construction implies the whole of a specified time period:

<sup>3</sup> Similar constructions are reported elsewhere—see Post (Chapter 3); Michael (Chapter 6); Overall (Chapter 7); Valentine (Chapter 8); Lichtenberk (Chapter 10).

<sup>4</sup> This construction is rapidly being replaced by *-wa bəhri*, with the Nepali loan *bəhri* ‘all, the whole of’ following *-wa*. The simple *-wa* construction can also indicate physical amount in constructions like *je-guhr-duh-wa rəi-c-yo* [2pl-carry-able-APPRX bring-2pl-IMP] ‘Bring as much as you can carry!’

- (19) [[bukhi-tə le]<sub>sc-wa</sub>]<sub>Ms</sub> mwĩ-wo kwa: cahi-i  
 alpine-ON stay-APPRX warm-NOMZ cloth need-IMPERV  
 As long as one stays in alpine regions, he/she needs warm clothing.

• **Until**

A related construction adds the lative suffix *-pəi* ‘up to’ and implies ‘up to a specific point in time’:

- (20) [[ədəhmər la:kin nəm o-dəhlki]<sub>sc-wa-pəi</sub>]<sub>Ms</sub> ba-ke-rə  
 middle day-ELAT sky 3sg-lean-APPRX-LAT go-PERV-3pl  
 They went from midday until evening (lit. ‘until the sky leaned’).

4.1.3. *Conditional (Ic)* The conditional clause utilizes a Type-A structure (see (10a))—the condition in the supporting clause is marked by the elative suffix *-kin* ‘away from’ (labeled <COND> in verbal contexts) directly following the verb stem:

- (21) [[ao nə-zyu]<sub>sc-kin</sub>]<sub>Ms</sub> si-nya nə-le  
 this 2sg-eat-COND die-INFIN 2sg-be  
 If you eat this you will die.

• **Counterfactual conditional**

The irrealis conditional is based on a nominalized verb (a Type-B structure), followed by the verb ‘to become’ in conditional form. The final verb is also nominalized:

- (22) [[nə-zyu-wo]<sub>sc</sub> ta-kin]<sub>Ms</sub> si-nya nə-le-o  
 2sg-eat-NOMZ be-COND die-INFIN 2sg-be-NOMZ  
 If you had eaten it you would have died.

• **Provisional**

The ‘provisional’ construction, also a type of conditional (‘provided this condition holds then this will follow’), has several variants, one of which is a Type-B construction. An allative marker *-da* follows the nominalized supporting clause:

- (23) [[ŋah-da ŋa-zyu-wo]<sub>sc-da</sub>]<sub>Ms</sub> ŋa-ba-rih-zya  
 before-ALL 1sg-eat-NOMZ-PROV, 1sg-go-DESID-CONT  
 First let me eat and [then] I’ll go.

The allative can follow other structures too—in (24a) an optative and in (24b) a conditional:

- (24) (a) [[ŋa-zihm-kə u-hu-kə]<sub>sc-da</sub>]<sub>Ms</sub> pəti-nya ŋa-le  
 1sg-house-LOC 3sg-come-OPT-PROV, believe-INFIN 1sg-be:IMPERV  
 Let him come to my house, [then] I’ll believe him.

- (b) [[o-ta-kin]<sub>SC</sub>-**da**]<sub>MS</sub> ŋa-ba-ya  
 3sg-be-COND-**PROV** 1sg-go-FUT  
 ‘So if it’s okay then, I’ll go.’

#### 4.2. *Consequence (II)*

In the section on temporal relationships (see §4.1) we saw a preponderance of linking devices based on local case markers. Here, the focus shifts from pinpointing an event in time to naming a specific sub event as the cause in some other event. As such, the grammatical markers used are those normally encountered in marking core syntactic clause constituents—ergatives/instruments, ablative/mediatives, and benefaction.

A subspecies of consequence, referred to as ‘possible consequence’, is built on an alternative structure in which the order of [supporting clause] ~ [focal clause] is reversed, and will be treated in §4.6.

4.2.1. *Cause, means (IIc)* Kham has two ‘because’ constructions, the first of which uses an ergative/instrumental marker for expressing ‘agency’, and the second of which uses an ablative/mediative marker for expressing ‘means’. Both are Type-B structures (see (10b)).

- (25) (a) **ERGATIVE/INSTRUMENTAL:**  
 [[o-ma-ba-o]<sub>SC</sub>-**ye**]<sub>MS</sub> kata zə ma-dəi-wo  
 3sg-NEG-go-NOMZ-**ERG** what EMPH NEG-find-3sg:IMPERV  
 Because he didn’t go, he didn’t find anything.
- (b) **ABLATIVE:**  
 [[u-yū: u-su-hub-o]<sub>SC</sub>-**ni**]<sub>MS</sub> o-do-wo ehn  
 3sg-heart 3sg-CAUS-trust-NOMZ-**ABL** 3sg-do-NOMZ work  
 phabi-ke  
 prosper-PERV  
 Because of his confidence, the work he did prospered.

4.2.2. *Purpose (IIp)* Purpose constructions in Kham differ from their English counterparts (see Dixon, Chapter 1) in that purpose in Kham is coded in the supporting clause, not in the focal clause.<sup>5</sup>

#### • In order to

In one kind of purpose construction, purpose is coded as an ‘action nominal’ (marked by an infinitive) followed by a genitive suffix and the relator noun

<sup>5</sup> Another type of ‘purposive’, a monoclausal construction, grammaticalizes the verb ‘to go’ into a verbal compound—*zihm jəi-na-ke-o* [house make-GO-PERV-3sg] ‘He went to build a house’; or *zihm jəi-na ŋa-hu-ke* [house make-GO 1sg-come-PERV] ‘I came to build a house.’



*jū-* plus ablative *-ni* ‘for the sake of’. This same construction, applied to nominals, codes benefaction—‘He went *for my sake*’. (This is not a true ‘benefactive’. The true benefactive is an applicative construction that adds a dative argument supported by the grammaticalized verb ‘give’.)

- (26) [[*bahl-si-nya*]<sub>SC-E</sub>      *jū:-ni*]<sub>MS</sub>      [*ba-ke-rə*]<sub>FC</sub>  
 watch-REFL-INFIN-GEN    **sake-ABLT**    go-PERV-3pl  
 They went in order to watch./They went for to watch.

### • Motivation

A common device for marking ‘purpose’ in the languages of South Asia<sup>6</sup> is a clause chain in which the first clause (namely the ‘medial clause’) specifies the motivation for the action named in the focal clause. The verb in the medial clause is a reduced form of the intransitive quotative verb ‘say’ (*həi li-nya*).<sup>7</sup> In (27) the motivation is one of purpose, but the construction is equally capable of specifying other motivations as well—hope, desire, apprehension, wonder, despair, etc.

- (27) [[“*ba-sya-kəri    ɲa-kəi-ya*”]<sub>SC</sub>    *li-də*]<sub>MS</sub>    [*cē:    ɲa-thā:-ke*]<sub>FC</sub>  
 bird-meat-CL    1sg-eat-FUT    **say-NF**    snare    1sg-set-PERV  
 “I’ll eat bird meat” thinking (to myself), I set a snare.  
 (So that I might eat bird meat, I set a snare)

### 4.3. Concession (IVc)

Concession is generally regarded in this volume as a type of ‘contrast’, but in Kham, only the concessive employs a main and non-main clause structure. Other contrastive types are unordered clauses in apposition and will be treated in §4.8.

In a concessive construction the verb stem of the supporting clause is followed directly by a concessive marker *-di*, which in turn is followed by *bə* ‘also’:

- (28) [[*u-si*]<sub>SC-DI</sub>    *bə*]<sub>MS</sub>    *u-min    khərəkə    zə    ma-mah-e*  
 3sg-die-CONC    **also**    3sg-name    when    EMPH    NEG-be.lost-IMPERV  
 Even though he dies, his name will not be lost. (His name will live on.)

<sup>6</sup> This construction type is not restricted to South Asia. Post reports the construction for a Tibeto-Burman language of India (Chapter 3), and Overall reports something similar from the Amazon (Chapter 7).

<sup>7</sup> This reduced form cannot be negated. Furthermore, a different [transitive] verb ‘say’, *həi da-nya*, encodes speech directed to a hearer and cannot have this interpretation. The intransitive verb ‘say’ encodes internal thoughts and speech quotations (utterances without a specified goal).

A second concessive construction applies a suppressive suffix *-tə* to the nominalized verb, a Type-B construction (compare this with the ‘while’ adverbial clause in (13)):

- (29) [[ba-o o-pəĩ-zya-o]<sub>sc</sub>-tə bə],<sub>Ms</sub> ba-o ma-dəi-wo  
 go-NOMZ 3sg-want-CONT-NOMZ-ON ALSO go-NOMZ NEG-find-3sg:IMPERV  
 Though he wanted to go, he was not permitted.

#### 4.4. *Alternative (suggestion) (Vs)*

There are two types of alternative linking in Kham, the simplest one being a ‘disjunctive alternative’ which employs an appositional structure and will be treated in §4.8.

The other type, the ‘suggestive alternative’, is treated here. One alternative is suggested in favor of another. In its most basic form, the rejected alternative occurs first, marked by *dekha* ‘rather’, followed by the preferred alternative expressed in an unmarked focal clause. In a more explicit form both clauses are marked—the first by *dekha*, and its preferred alternative by *buru* ‘instead’ (a Nepali loan):

- (30) [[cor-e je-lai səih-wo o-do-zya-o]<sub>sc</sub> dekha],<sub>Ms</sub>  
 thief-ERG you.pl-ACC kill-NOMZ 3sg-do-CONT-NOMZ rather  
 [[buru]<sub>Mf</sub> je-pəisa o-mah-wo pathə li-zya]<sub>fc</sub>  
 instead 2pl-money 3sg-lose-NOMZ better be-CONT  
 Rather than have a thief kill you (pl), it is better instead for your (pl)  
 money to be lost.

#### 4.5. *Manner (VI)*

In a ‘manner’ linkage, the action named in the main clause (the second clause) is performed in the manner referred to in the supporting clause. There are two types—one actual and the other hypothetical.

4.5.1. *Real manner (VIr)* Many South Asian languages have a construction that takes the place of relative clauses, known as the ‘corelative’. Kham has three such corelative pairs (though none are used as replacements for relative clauses):

- (31) [[kitao]<sub>Ms</sub> u-r̥h-wo]<sub>sc</sub> [[hitao]<sub>Mf</sub> zə jəi-ke-o]<sub>fc</sub>  
 how 3sg-see-NOMZ like.that EMPH make-PERV-3sg  
 As he saw it, so he made it.

4.5.2. *Hypothetical manner (VIh)* Hypothetical manner uses a morpheme related to the *kitao* ~ *hitao* pair in example (31). *Kitao* is primarily an

interrogative pronoun ‘how’; and *itao*, *nitao*, and *hitao* are adverbial proforms ‘like this’, ‘like that’, and ‘like that (anaphoric)’, respectively. *Mitao* is a related form, used in constructions like the following:

- (32) [[pāih o-səĩ-zya-o]<sub>sc</sub> mitao]<sub>Ms</sub> gehppa jəi-si-zya  
 everything 3sg-know-CONT-NOMZ like important make-REFL-CONT  
 He pretends to be important [like he knows everything].

#### 4.6. Possible consequence (III)

One thing of note in this section is that the supporting clause occurs *after* the focal clause (see Table 3), something we have not seen before. However, the grammatical marker still falls on the supporting clause.

In possible consequence constructions, the eventuality named in the supporting clause is typically something to be avoided (Dixon, Chapter 1). There are several ways of marking this semantic relationship in Kham, summarized below.

4.6.1. *Prohibitive marking* Perhaps the most common way of coding possible consequence in Kham is to mark the focal clause with a negative imperative and the supporting clause in future tense. There is no explicit grammatical linker in this construction; the interpretation is based on inference, as in the following biclausal construction:

- (33) nə-tə ta-ba-ni, [nə-pa-ya]<sub>sc</sub>  
 there-ON PROHIB-go-2sg:IMP, 2sg-fall-FUT  
 Don’t go up there, you might fall.

4.6.2. *Otherwise* The construction type in example (33) can be made more explicit by the addition of a clause linker *mani* ‘otherwise’ to the supporting clause. The morpheme *mani* is possibly a combination of the negative marker *ma-* plus the ablative marker *-ni*, yielding a meaning something like ‘if not... then’. If so, this might be classed as one of the ‘pro-forms’ treated in §5.<sup>8</sup>

- (34) jyāh khar-lə dōh-na-ci-ke, [[mani]<sub>Ms</sub> je-si-ya]<sub>sc</sub>  
 jungle midst-IN run-GO-2pl-IMP, otherwise 2pl-die-FUT  
 Flee to the jungle, otherwise (if not) you may die.

A related construction begins with an imperative or a marker of obligation in the focal clause, but the supporting clause is marked by *kəsa* ‘lest’, or an emphatic version *kəsa-ra-kə* [lest-PL-LOC] ‘lest by some chance’. (I cannot speculate on the source of this linking word.) Such constructions almost always include a negative in the supporting clause:

<sup>8</sup> See Post (Chapter 3) and Stebbins (Chapter 15) for similar collocations.

- (35) ri:h-wo      ta-ke,      [[kəsa]<sub>Ms</sub>      ma-pā:ye]<sub>sc</sub>  
 whip-NOMZ   be-PERV,   **lest**      NEG-talk-IMPERV  
 [We] ought to whip him, lest he not talk. (Let's whip him, maybe he'll talk.)

#### 4.7. Addition (IV)

Much of what could be called 'addition' in Kham is covered by same-subject clause chains of the sort illustrated in example (9)—*Scalding and drying it we make a side-dish of it*. In the following, however, I will treat only those structures that are clearly coordinate. In such structures there is no main clause and no non-main clause, only two semantically linked independent clauses.

4.7.1. *Unordered addition (IVu)* The most common structure for coordinating clauses in Kham is one in which two independent clauses, both headed by fully inflected verbs, occur in apposition. Each of the clauses is marked by a repetition of the morpheme *məni* 'also'. In the construction types illustrated in (36–8, 42), it appears to be the repetition that links them.

- (36) [harnu-rə      **məni**      lēh-d-ya-si-ke-o],  
 milk-PL      **also**      buy-NF-BEN-1pl-PERV-3sg  
 [syakəri:rə      **məni**      lēh-d-ya-si-ke-o]  
 meat-PL      **also**      buy-NF-BEN-1pl-PERV-3sg  
 He also bought milk for us, (and) he also bought meat for us.

4.7.2. *Incongruous actions* Clauses whose contrastive status codes an incongruous situation are marked by a repetition of the linker *taki-tərə*:

- (37) [ol      **taki-tərə**      zyu-zya-o],      [ge-lai      **taki-tərə**      ma-le]  
 he      **on.one.hand**      eat-CONT-3sg,      we-DAT      **on.one.hand**      NEG-be:IMPERV  
 He, on the one hand eats, but for us, on the other hand, there is nothing.

4.7.3. *Alternating actions* 'Alternating actions' refer to separate activities that alternate with one another, first one and then the other. Though the alternating actions are subordinated as clausal complements to a matrix verb 'to do', making the whole construction a single sentence, the two subordinated actions themselves are of equal status, coordinated by the repeated linking word *ehn* (which means 'work' in other contexts).

- (38) [[hū:wo      **ehn**]      [ba-o      **ehn**]]<sub>COMP</sub>      zə      do-zya-o  
 come-NOMZ      **ALT**      go-NOMZ      **ALT**      EMPH      do-CONT-3sg  
 He keeps coming and going.

4.7.4. *Contrastive apposition (IVc)* In Kham there is no contrastive particle, *per se*, equivalent to English 'but'. Many Himalayan languages have borrowed the Nepali word *tərə* 'but' into their vocabulary; Kham has not.

There are two basic constructions. In the simplest one, the notion of contrast is simply implicit in paired oppositions like the following. (The contrastive focus morpheme *te* in the second clause lends support to the contrastive status of the construction.)

- (39) [ŋa: zihm-da    ŋa-ba-ke],    [ol    **te**    ma-ba-e]  
       I        house-ALL    1sg-go-PERV    he    **FOC**    NEG-go-IMPERV  
       I went to the house, he (contrastively) didn't go.

In another construction, the event named in the supporting clause is coded as a nominalization (a backgrounding device) and the event in the focal clause is an ordinary declarative structure. The supporting clause specifies the *ground* against which the focal clause stands out as a *figure*:

- (40) [ba-n-ke    həi    ŋa-do-**wo**]<sub>sc</sub>    ma-ba-ke  
       go-2sg-IMP    thus    1sg-say-**NOMZ**    NEG-go-PERV  
       I told him to go, [but] he didn't go.

In constructions like (39) and (40), the semantic composition of the individual clauses constrains the range of interpretation without explicitly coding it. As noted by Aikhenvald (Chapter 5), “The semantic relations between apposed clauses depend heavily on the context.” (See also Hellwig, Chapter 13.)

#### 4.8. *Alternatives (V)*

There are three alternative structures in Kham. One does not concern us here—the basic ‘yes-no’ question, a monoclausal construction that makes no explicit mention of an alternative. Of the other two, one is a biclausal ‘alternative question’ and the other an ‘alternative possibility’.

4.8.1. *Alternative question* Apart from the monoclausal ‘yes-no’ question, a second, more explicit alternative question is formed by the apposition of two clauses linked by the interrogative conjunction *səĩ* ‘or’. The morpheme *səĩ* is primarily an NP linker, as in *ao səĩ ho* ‘this or that?’. In the following example it links two alternative clauses:

- (41) [ba-nya]    **səĩ**    [ma-ba-nya]  
       go-**INFIN**    **or**    NEG-go-**INFIN**  
       To go or not to go./Shall we go or not?

4.8.2. *Alternative possibilities (Vd)* The other alternative type in Kham is not an interrogative at all, but expresses possible alternative outcomes. Though apposition is part of its linking structure, the semantic device that drives it is a repetition of the semantic feature being linked, here *ta-kya*:

- (42) [achim ta-kya], [pəhrati ta-kya]  
 [today become-POSSIB] [tomorrow become-POSSIB]  
 It might happen today, or it might happen tomorrow.

## 5. Pro-forms

In all of the structures we have seen so far, especially in §§4.1–4.5, the grammatical marker on the non-main clause creates a semantic dependency with the main clause—the relationship may be one of condition, of consequence, or simply sequential clause chaining.

With semantic linking pro-forms, the grammatical apparatus we saw operating on dependent/supporting clauses gets reused at a higher level and attaches to special deictic, anaphoric adverbials, usually *h-əi* ‘thus’ (functioning in a paradigm with *əi* ‘like this’, and *n-əi* ‘like that’), or some other *h*-form. The pro-form stands in for the preceding clause, or some larger chunk of preceding discourse, and creates a link with it.

In the modern grammar, though all of these forms behave like single lexical items and cannot be negated (not even where an erstwhile verb is part of the structure, as in (43) or (46)), the pathway of grammaticalization for these ‘conjunctive adverbs’ is transparent.

### 5.1. Reason pro-forms

The ‘reason pro-form’, *həi jəi-də*, marks a cause-and-effect relationship. It can be roughly translated as ‘therefore’, ‘so then’, ‘that being the case’, or even ‘that’s why’. This is one of the most frequently used of all semantic clause linkers in Kham discourse, and involves, at minimum, two independent clauses. An independent supporting clause (or some part of the preceding discourse) states the ‘cause’ and the immediate clause containing the pro-form (marked here as <PRO>) states the ‘result’.

The pro-form is a summary or pronominal-like ‘recapitulation’ of the preceding clause/discourse. The structure of the erstwhile verb (*jəi-də*) in the pro-form *həi jəi-də* is analogous to the medial verb construction in SS clause chains that we saw in (9) (except that it cannot be negated), and serves as a grammaticalized ‘adverbial conjunction’.

- (43) no-e u-juhkəi-na-o ci; [həi jəi-də]<sub>PRO</sub> ŋa-zyu-wo<sup>9</sup>  
 he-ERG 3sg-trick-1sg-NOMZ CNTREXP; thus make-NF 1sg-eat-NOMZ  
 He tricked me; therefore I ate (it).

<sup>9</sup> In most running discourse, I usually consider sentences beginning with *həi jəi-də* as the beginning of a new sentence, or even a new paragraph—with a summarizing function very much like ‘so that being the case’. Here I treat it, rather uneasily, as a single sentence with the preceding clause because of its close semantic bond (which in turn lends itself to a connective intonational contour). This example is not unlike those of ‘Possible Consequence’ in (33–5).

5.2. *Concessive pro-forms*

Modeled after the two concessive constructions described in §4.3 are two concessive pro-forms, one of which is *həi-di bə*, translated ‘nevertheless’. As we saw in (43), *h-əi* is a deictic manner pronoun meaning ‘thus’. The rest of the form, *-di bə*, is borrowed from the concessive form shown in example (28).

- (44) [həi-di bə]<sub>PRO</sub> u-min khərəkə zə ma-mah-e  
 thus-CONC also 3sg-name when EMPH NEG-be.lost-IMPERV  
 Nevertheless/still, his name will not be lost.

The second concessive pro-form, *hitao-tə bə*, is related and means ‘even so’. It is a probable reduction of *v-NOMZ-ON bə* as shown in example (29).

- (45) həi ta-o-tə bə...  
 thus become-NOMZ-ON also  
 even upon that having happened...

which is further grammaticalized to:

- (46) [hitao-tə bə]<sub>PRO</sub> ho pəra:hti ras-ke-rə  
 like.that-ON also that tomorrow release-PERV-3pl  
 Even so, they released it the next day.

5.3. *Temporal pro-forms*

There are numerous temporal pro-forms in Kham based on adverbs of spatial orientation or quantity, and beginning with the same anaphoric primitive *h-* we saw in examples (43–6). I give here a single representative example. All such forms are followed by locational suffixes of the sort illustrated in Table 1.

- (47) [hu-kin]<sub>PRO</sub> həi o-do-wo bəhri do-ke-o  
 that-ELAT thus 3sg-say-NOMZ all do-PERV-3sg  
 Then/after that, he did all that he said.

## 6. Summary

Many of the case markers that occur on NPs to specify location, direction, agency, means, and benefaction in Kham have been co-opted into the verbal system of non-main clause structures (both nominalized and not) to indicate temporal notions of sequence and relative time, conditionals, consequence, concession, and purpose. Some clause linkages, like certain clause chaining devices, occur only in the verbal system.

For the most part, subordinate clauses occur first along with their clause linking markers, and these are followed by the focal clause. In a few cases, special pro-forms have been grammaticalized as ‘adverbial conjunctions’, in which case the clause linking device belongs to the second clause. Its basic function is to recapitulate what went before.

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# The Semantics of Clause Linking in Manambu

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Linking clauses in Manambu involves a variety of means, including clause chaining, speech reports, conjoined dependent clauses, nominalizations, connectives, and apposition. Many clause linking techniques are polysemous; and some can be disambiguated if necessary. I start with an outline of typological features of Manambu, focusing on the parameters relevant for clause linking. I then turn to the clause linking techniques and their correlations with semantic types. The last section contains a brief summary.

## 1. Background

Papuan languages—or, more precisely, non-Austronesian languages of the New Guinea area—are renowned for their diversity. Within the New Guinea area, the Sepik River Basin is perhaps the most linguistically diverse region, with more than a dozen families and numerous isolates. Manambu is a member of the Ndu language family—the largest in the Sepik area in terms of numbers of speakers. The language is spoken by about 2,500 people in five villages in East Sepik Province, Ambunti District.<sup>1</sup>

<sup>1</sup> See Aikhenvald and Stebbins (2007) on linguistic diversity in the New Guinea area; and Aikhenvald (2004; 2008a: chapter 22) on the position of Ndu family in the Sepik River Basin, and of Manambu within it. Broader genetic links of the Ndu family have so far been unsubstantiated. Other languages of the family are: Abelam-Wosera dialect continuum (over 40,000 speakers), Boikin (with over 30,000 speakers), Iatmul, a dialect continuum spoken by over 50,000 people, Yelogu (or Kaunga) spoken by about 200 people, and Gala (or Ngala), with about 150 speakers.

About 200-400 speakers of Manambu live in the cities of Port Moresby, Wewak, Lae, and Madang; a few people live in Kokopo and Mount Hagen. My fieldwork is predominantly based on the Avatip variety (I have also worked with speakers in other villages—Yawabak, Malu, and Apa:n, and to a lesser extent Yambon (Yuanab)). The dialectal differences between villages are minimal (see Aikhenvald 2008a). I am indebted to my Manambu family, especially Yuamali Jacklyn Benji Ala, Pauline Agnes

### 1.1. Word classes and their features

Manambu is one of the most morphologically complex languages of the family. In terms of its typological profile, it is nominative-accusative, predominantly suffixing and agglutinating with some fusion. Nouns and verbs are clearly distinguished in terms of their categories and inflectional possibilities. There are two classes of adjectives: one closed (which consists of agreeing adjectives ‘small’, ‘big’, and ‘fine’), and one semi-open (which includes over twenty non-agreeing adjectives, covering colour, physical properties, and so on).

Nouns have two covert genders (feminine and masculine, marked via agreement in singular only) and three numbers (singular, dual, and plural) marked on modifiers and on verbs. Gender assignment for humans is sex-based; for other groups of nouns it is based on size and shape. So, a small location will be referred to as feminine, and a large one as masculine; a short stretch of time is feminine, and a long one masculine (cf. (3) below). Nouns distinguish nine case forms: a zero-marked subject case (with the same form employed in a number of other functions, including copula complements and second arguments of some extended intransitive verbs); definite object and locational case -*Vm*; dative-aversive (‘for fear of’) -*Vk*; comitative -*wa*; terminative (‘up to a point’) -*Vl*; transportative ‘via transport’ -*say*, -*sap*; allative-instrumental -*Vr*; and substitutive ‘instead’ -*yæy*. These latter forms are versatile: they can also occur with verb roots. The substitutive -*yæy* marks ‘alternative’ linking, ‘instead of’ and ‘rather than’, and the allative-instrumental -*Vr* marks ‘manner’ linking (see §3.4). The suffix -*pək* ‘like’, one of five non-word-class-changing derivational suffixes, occurs with nouns and pronouns (e.g. *wapi kudi-pək* (bird language-LIKE) ‘like bird’s language; (something) similar to bird’s language’). With inflected verbs it expresses manner linking (see §3.4). This same suffix marks comparatives with adjectives (e.g. *numa-də-pək* (big-masc.sg-LIKE) ‘bigger’).

Verbs can be intransitive, or ambitransitive (most are of S = A type; but there are some S = O); there are rather few strictly transitive or ditransitive verbs. Verbal categories in main clauses include personal cross-referencing fused with tense; a variety of aspects, including habitual, completive, repetitive, etc.; mood and modalities, including irrealis (distinguishable from future only in negative clauses), imperative, purposive, desiderative, etc.; and a complex system of marking negation. Action nominals are derived via full reduplication of verbal roots, e.g. *war-* ‘go up’, *warwar* ‘going up’. They take

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Throughout this chapter, clauses are in [...].

fewer cases than underived nouns and are used as complementation strategies. Their argument structure and marking is the same as that of any inflected verbal form. Nominalizations marked with *-Vk* ‘dative/aversive case’ mark complements of verbs of fear and refusal, and occur in ‘possible consequence’ clause linking (§3.5). They can also occur in main clauses as uninflected predicate heads (with the meaning of weak probability). This is one of numerous instances in Manambu whereby a dependent clause acquires the status of a main clause.

A member of any word class can head the predicate of an intransitive main clause. Verbs then take tense-sensitive verbal cross-referencing suffixes. Depending on clause type and mood, modality, and aspect, either just the subject (A or S) or the subject and an additional constituent can be cross-referenced (see §1.2). Other word classes take nominal cross-referencing enclitics with no tense distinctions. Only verbs can head transitive clauses.

Clause chaining is a notable feature of many languages in New Guinea. Manambu is no exception: the major strategy for linking clauses involves a chain of medial dependent clauses marked for switch reference—that is, whether or not the subject of the preceding supporting clause is the same as that of the main, focal, clause. Constituent order in main clauses is predominantly verb final; the order of A/S, O, and obliques is pragmatically determined. Constituent order in medial clauses is strictly verb final. This is one aspect in which various clause types in the language differ from each other—see the next section.

## 1.2. *Verbal cross-referencing and clause types*

1.2.1. *Cross-referencing on verbs* Each verb can be fully inflected, partially inflected, and uninflected. FULLY INFLECTED VERBS potentially cross-reference two arguments: the subject and any other argument (except copula complement and speech reports: §4) which is more topical than the subject.

The verb *və-* ‘see, look’ in (1) and (2) cross-references just one argument, the subject. This verb, an S = A ambitransitive, is used intransitively in (1) and transitively in (2).

- (1) *və-na-d*  
 see/look-ACT.FOC-3MASC.SGBAS.NPAST  
 He sees/looks (S=A ambitransitive)
- (2) *kə            ja:p    və-na-d*  
 this:fem.sg    thing    see/look-ACT.FOC-3MASC.SGBAS.NPAST  
 He sees/looks at this thing

If a non-subject argument or oblique is more topical than the subject, it is cross-referenced on the verb, in the second cross-referencing position (following the subject markers). As shown in (3), a second cross-referencing position can correspond to (a) a topical O, (b) location, (c) time, or (d) beneficiary. (3) is polysemous:

- (3) *və-la-d*  
 see/look-3fem.sgsu.NPAST-3masc.sgbas.NPAST  
 (a) She sees/looks at him/it—topical human masculine O ‘him’ or ‘it’ (large non-human thing) is cross-referenced  
 (b) She sees/looks (at someone/something) in a large (‘masculine’) location—topical location cross-referenced  
 (c) She sees/looks (at something) for a long (‘masculine’) time—topical time cross-referenced  
 (d) She sees/looks (at something) for his benefit—topical beneficiary (‘for his benefit’) cross-referenced

PARTIALLY INFLECTED VERBS cross-reference only the subject, as does the different-subject purposive form of ‘know’ in (4). The purposive marker is in bold.

- (4) [*laku-dəmən-kək*]<sub>SC</sub>      [*karya-tua-d*]<sub>FC</sub>  
 know-2masc.sg-PURP.DS    bring-1sgsu.NPAST-3masc.sgbas.NPAST  
 I brought him, for you to know (him)

UNINFLECTED VERBS take no cross-referencing. This is exemplified with the same-subject purposive form of ‘take’ in (5):

- (5) [*wun mən-a:m*                      *karda-k*]<sub>SC</sub>  
 I            you:masc-LINK + OBJ    take + DOWN-PURP.SS  
 [*war-na-dəwun*]<sub>FC</sub>  
 go.up-ACT.FOC-1masc.sgbas.NPAST  
 I have come up to take you downwards

Examples (4–5) illustrate one important principle: all same-subject dependent clauses involve non-inflected verbs, and all different-subject clauses involve partially inflected verbs. Fully inflected verbs are found just in main clauses, and conjoined dependent clauses (which are not switch-reference sensitive).

This is not to say that uninflected verbs do not occur in main clauses: for instance, a verb is uninflected when it occurs in desiderative modality or completive aspect, e.g., *wun kə-kər* (I eat-DESID) ‘I want to eat’, *wun rəpə-m* (I full-COMPL) ‘I am completely full’.

TABLE 1. Main clauses versus dependent clauses: some distinguishing features

|  | MAIN CLAUSES  | DEPENDENT CLAUSES   |              |                                     |  |                                  |                   |
|--|---|---|--------------|-------------------------------------|--|----------------------------------|-------------------|
| PROPERTY                                 |   | MEDIAL CLAUSES  |              |                                     | CONJOINED CLAUSES                                  | PURPOSIVE CLAUSES                |                   |
|  |   | DS  | SS           | NSRS                                | NSRS   | DS                               | SS                |
| 1. Constituent order in clause           | verb-final tendency; some freedom                           | strictly verb final: no freedom   |              |                                     |  |                                  |                   |
| 2. Position in sentence                  | not fixed; sentence-final tendency                          |   |              | tends to be preposed to main clause |  | pre- or postposed to main clause |                   |
| 3. Verbal cross-referencing              | fully or partially inflected, or uninflected                | partially inflected   | un-inflected | partially inflected or uninflected  | fully inflected                                    | partially inflected              | uninflected       |
| 4. Predicate head                        | any word class  | only verbs  |              |                                     |  |                                  |                   |
| 5. Uninflected modal and aspectual forms | can head the predicate                                      | cannot head the predicate; require a support verb                         |              |                                     |  |                                  |                   |
| 6. Clausal negation                      | future negation; past negation; habitual negation expressed | suffix <i>-ma:r-</i> 'dependent clause negation'                          |              |                                     |  |                                  | cannot be negated |
| 7. Tense                                 | absolute: present/recent past; remote past; future          | relative tense meaning fused with dependent clause marking in all clauses |              |                                     | absolute: present/recent past; remote past; future | no tense                         |                   |
| 8. Habitual aspect                       | yes   | none (except causal clauses)  |              |                                     | yes  | no                               |                   |

|                                  |                                   |   |                                  |                                   |
|----------------------------------|-----------------------------------|---|----------------------------------|-----------------------------------|
| 9. Imperative                    | regularly expressed               | none  |                                  |                                   |
| 10. Generic verb<br><i>napa-</i> | not used                          | temporal linking (§3.1, (12))                   | not used                         |                                   |
| 11. Focus                        | any constituent can be focused    | no constituent can be focused                   |                                  |                                   |
| 12. Content questions            | any constituent can be questioned | any constituent can be questioned in most types | no constituent can be questioned | any constituent can be questioned |
| 13. FC or SC                     | FC                                | SC  | SC                               | FC or SC depending on context     |

Notes: SS - same subject; DS - different subject; NSRS - non-switch-reference sensitive.

TABLE 2. Summary of semantic types of clause linking and their expression in Manambu

| SEMANTIC TYPE           | CLAUSE LINKING DEVICE   | MARKER; ITS MEANING; SECTION; EXAMPLES   | SUPPORTING CLAUSE   | FOCAL CLAUSE   |
|-------------------------|---|--|---|--|
| Is, Temporal succession | Clause chaining   | - <i>taka</i> ‘immediate sequence’: §3.1<br>- <i>kəb</i> ‘as soon as’: §3.1: (6)   | Medial clause SS<br>Medial clause DS  | Final clause   |
| Ir, Relative time       | Clause chaining<br>}<br>Conjoined clauses<br>Apposition of MC | - <i>n</i> ‘simultaneously, while’: §3.1: (7)–(9)<br>- <i>ku/-k</i> ‘completive: after’: §3.1: (10)–(12)<br>- <i>ta:y</i> ‘cotemporaneous: before, while and after’: §3.1: (6)<br>rising pitch: simultaneous: §3.2, (15)<br>with adverb <i>ta:y</i> ‘before’ in SC: §5.2, (38) | Medial clause NSRS<br>Medial clauses SS/DS<br>Medial clause SS<br><br>Clause bearing rising pitch NSRS<br>Clause with <i>ta:y</i> | Final clause<br><br><br>Second clause                      |
| Ic, Conditional         | Clause chaining<br><br>Conjoined clauses                      | V- <i>ga:y</i> ‘unlikely condition’: §3.1: (13)<br>- <i>ku/k</i> ‘completive: real/possible condition’: §3.1: (11), (13)<br>rising pitch; possible/counterfactual condition: §3.2, (15)–(18)   | Medial clause SS<br>Medial clauses SS/DS<br><br>Clause bearing rising pitch NSRS  | Final clause   |
| IIC, Cause              | Clause chaining<br><br>Speech report<br>Connectives           | - <i>ku/k</i> ‘completive: reason’: §3.1: (10)–(11),<br>- <i>lək</i> ‘causal clause’: §3.1: (8)<br><i>wa-</i> ‘say’ preceded by SR: §4: (28)<br><i>alək</i> ‘this is why’, <i>alək tə-ku</i> ‘because of that, so’: §5.1, (14), (30–1)   | Medial clauses SS/DS<br>Medial clause NSRS<br>Speech report NSRS<br>First MC  | clause with ‘say’<br><i>alək</i> MC<br><i>alək təkū</i> MC |
| IIR, Result             | Connectives<br><br>Apposition of MC                           | <i>alək təkū</i> ‘because of that, so’: §5.1, (32);<br><i>atawata:y</i> ; <i>a</i> ‘then/so’: §5.2: (34)<br>§5.2, (31c), (39)  | First MC  | <i>alək təkū</i> MC<br>Second MC                           |

|                          |  |   |  |                                    |
|--------------------------|--|---|--|------------------------------------|
| IIp, Purpose             | Purposive forms<br>Speech report                         | <i>-k/-kək</i> ‘purposive’: §3.3, (4), (5), (19)<br><i>wa-</i> ‘say’ preceded by SR: §4   | Either clause<br>Speech report NSRS  | Either clause<br>Clause with ‘say’ |
| III Possible consequence | Speech report<br>Action nominalization                   | <i>wa-</i> ‘say’ preceded by SR: §4, (29)<br>Dative/aversive marked nominalization and case and ‘in the event’ clause: §3.5, (25–7)                   | Speech report NSRS<br>Nominalization NSRS                                    | clause with ‘say’<br>MC            |
| IVs, Same-event addition | Clause chaining  | <i>-n</i> ‘simultaneously, while’: §3.1   | Medial clause  | Final clause                       |
| IVe, Elaboration         | Apposition of MC   | of main clauses: §5.2: (36); (27); (40)   | First clause   | Second clause                      |
| IVc, Contrast            | Connectives<br><br>Apposition of MC                      | <i>aw</i> ‘contrast; or; in turn’: §5.1: (27), (33)<br><i>a</i> ‘then/so; contrast’: §5.1: (35)<br>of main clauses: §5.2                              | First clause   | Second clause                      |
| Vd, Disjunction          | Connective   | <i>aw</i> ‘contrast; or; in turn’: §5.1   | n/a  |                                    |
| Vr, Rejection            | Case marking on verb<br>Apposition of MC                 | <i>-yæy</i> ‘substitutive case “instead of”’: §3.4: (21)<br>of main clauses: §5.2   | DC marked with <i>-yæy</i><br><br>First clause                               | MC<br><br>Second clause            |
| Vs, Suggestion           | Case marking on verb<br><br>Apposition of MC             | (i) <i>-yæy</i> ‘substitutive case “rather than”’: §3.4;<br>(ii) ‘in turn’: §3.4: (22)<br>of main clauses (one of these may be a command): §5.2: (37) | DC marked with <i>-yæy</i><br><br>First clause                               | MC<br><br>Second clause            |
| VIr, Real manner         | Clause chaining<br>Case marking on verb<br>Suffix ‘like’ | <i>-n</i> ‘simultaneously, while’: §3.1: (8), (9)<br><i>-Vr</i> ‘allative-instrumental’: §3.4: (20)<br><br><i>-pək</i> ‘like’: §3.4: (23)             | Medial clause<br>DC marked with <i>-Vr</i><br><br>DC marked with <i>-pək</i> | Final clause<br>MC<br><br>MC       |
| VIh, Hypothetical manner | Suffix ‘like’  | <i>-pək</i> ‘like’: §3.4: (24)  | DC marked with <i>-pək</i>   | MC                                 |



Apart from that, grammatical relations are marked in the same way in all clauses. Any clause, main or dependent, can be in apposition with another clause of the same type. We now turn to a comparison of different clause types.

1.2.2. *Clause types: a comparison* Table 1 features a comparison between main clauses and major subtypes of dependent clauses, in terms of their constituent order; the option of having a non-verbal predicate head; tense, aspect, and mood; negation; applicability of content questions; and focus.

In addition, dependent medial clauses have a slightly rising intonation at the end. A striking feature of conjoined dependent clauses is their sharply rising intonation contour with the pitch going up on the last syllable of the predicate. These suprasegmental features are distinct from those of a main clause.<sup>2</sup>

Some dependent medial clauses always mark switch reference, while others are non-switch-reference sensitive. Purposive clauses are strictly different subject, or same subject.

Of thirteen distinguishing properties listed in Table 1, five are shared by all dependent clauses, and may justify postulating a binary opposition of 'dependent clause' versus 'main clause'. A rather striking property which sets main clauses apart from dependent clauses is negation (with a proviso that same-subject purposive clauses cannot be negated at all: if they have to be, a biclausal structure is used). A negated declarative verb in a main clause is uninflected and is either equal to a stem, or contains a reduced vowel. Tense (future versus non-future) is expressed by the position of the negator: *ma: və* (NEG see:NEG. STEM) means '(I/you/she/he/we...) do not/did not see', and *və ma:* (see: NEG.STEM NEG) means '(I/you/she/he/we...) will not see'. (Positive verbs have a future suffix *-kə-*.) A negated verb in a dependent clause just takes the suffix *-ma:r-* immediately after the root, as in (8–9) below.

In same-subject dependent clauses the shared argument (the subject) tends to be ellipsed. Any argument can be ellipsed in other multiclausal structures.

## 2. Grammatical means for linking clauses, and their semantics

Table 2 summarizes the varied grammatical devices employed in clause linking in Manambu, and their correlations with semantic types. These include: (i) clause chaining via medial clauses; (ii) conjoined clauses; (iii) purposive clauses; (iv) clause linking with case markers and the suffix 'like'; (v) nominalizations

<sup>2</sup> Table 1 does not include relative clauses, since they are irrelevant for this topic. Manambu has no complement clauses as a special type. Medial clauses, purposive clauses, speech reports, nominalization, and apposition of main clauses can be used as complementation strategies (Chapter 19 of Aikhenvald 2008a). The choice depends on the verb in a matrix clause.

marked with dative-aversive case and ‘in the event’ clauses; (vi) speech reports; (vii) clause linking involving connectives; (viii) apposition of main clauses. Devices (i)–(iv) involve dependent clauses (whose properties are contrasted with those of main clauses in Table 2). Nominalizations and ‘in the event’ clauses (v) can be interpreted as a type of dependent clause. Speech reports (vi) involve a special construction type. Devices (vii) and (viii) involve main clauses. In each case, there can be more than one supporting clause (cf. (27)), and just one focal clause.

Those devices which involve dependent clauses are discussed in §3. Speech reports are addressed in §4, and devices involving main clauses in §5.

### 3. Clause linking involving dependent clauses

#### 3.1. Medial clauses

The properties of medial clauses are outlined in Table 1. A segmentally marked medial supporting clause is not necessarily sentence final. A typical sentence contains one focal clause and a chain of supporting clauses, many of them sensitive to whether their subject is the same as that of the following clause or not. Unlike many languages with switch reference, the identity of the subject is strictly controlled by an adjacent clause (which may, or may not, be the main clause). The same principle applies to relative time and temporal succession.

Medial clauses are the main means of expressing Temporal linkage (I). Markers of temporal succession, *-taka* (SS) ‘immediate ‘back-to-back’ sequence’ and *-kəb* (DS) ‘as soon as; shortly thereafter’, and one marker of relative time *-ta:y* ‘cotemporaneous’, are semantically straightforward. The cotemporaneous *-ta:y* refers to an activity which has started before that of the following clause (this can be focal or supporting), and now overlaps with it. This marker, possibly related to the temporal adverb *ta:y* ‘prior, before’ (see §5.2), is the only way of expressing a meaning of ‘before’ through clause chaining: the equivalent of English ‘put your hat on before you go out’ would be [*aba-wapwi kusu-ta:y*]<sub>SC</sub> [*awakw*]<sub>FC</sub> (head + LINK-dress put.on-COTEMP IMP.go.out), lit. ‘Having put the hat on and having it on, go out’.

(6) comes from a story about orphaned children mistreated by their uncle’s wife, the A of the two supporting clauses (stated overtly in the second clause):

- (6) [yarakara yi-pakwu-**ta:y**]<sub>SC</sub> [dəy-a                      batay  
 well                      TRS-hide-COTEMP they-POSS + fem.sg uncle’s.wife  
 yi-pakwu-lə-**kəb**]<sub>SC</sub>,                      [kap-ən rə-kwa-da-di]<sub>FC</sub>  
 TRS-hide-3fem.sg-AS.SOON.AS wait-SIM sit-HAB-3plSU.PAST-3plBAS.PAST  
 While the uncle’s wife had been hiding (the food) well, as soon as she  
 had hidden the food, they (the children) kept on waiting

In contrast, the clause chaining marker *-n* ‘simultaneously, while’ is polysemous. It may indicate relative time, as in (7).

- (7) [v~~k~~i- n]<sub>SC</sub> [ap]<sub>FC</sub>  
 go.across-SIM IMP.look  
 Look as you go across!

This same marker can refer to ‘real manner’ (VIR), that is, a way in which an activity is performed (or a ‘means’ to achieve it).

- (8) (a) [ma:y tə-ma:r-da-lək]<sub>SC</sub> [kamna:gw yapi:n]<sub>SC</sub>  
 garden have-NEG.DEP-3pl-CAUSAL food buy + SIM  
 (b) [kə-kwa-na-di]<sub>FC</sub>  
 eat-HAB-ACT.FOC-3plBAS.NPAST  
 Since they do not have gardens, they buy their food (lit., they eat by buying food)

A manner clause in (8) can be questioned by *atawa* ‘how’ (‘How do they eat? Buying food’). This would not be appropriate for a clause with a temporal reading, as in (7).

Nevertheless, the medial clauses whose predicate is marked with *-n* are often ambiguous between manner and simultaneous concomitant action—see (9):

- (9) (a) [kwasabi kusu-ma:r-ən]<sub>SC</sub>  
 string.bag wear-NEG.DEP-SIM  
 (b) [a gwa:m da:n]<sub>SC</sub>  
 DEM.DIST.fem.sg water + LINK + LOC go.down + SIM  
 (c) [kwakə-da-d]<sub>FC</sub>  
 look.for-3plSU.PAST-3masc.sgbas.past  
 They looked for him going down into the water/by going into the water without wearing (their) stringbags

The *-n* marked medial clauses often describe different aspects of the same event—this is the closest Manambu ever comes to expressing same-event addition. The verb forms in *-n* are highly versatile. They are frequently reinterpreted as manner adverbs (similarly to other languages with clause chaining, such as Manambu’s close relative Iatmul (Jendraschek forthcoming), and Aguaruna), e.g., *səbən-ən* (return-SIM) ‘returning (verb); back (adverb: see (31))’, *yi-n* (go-SIM) ‘going (verb); on and on (adverb)’. They also participate in the formation of anterior and durative complex predicates, and monoclausal passive-like structures with a support verb, e.g. *wiyugw*

*kasapwi-n tə-na* (door open(TR)-SIM stand-ACT.FOC + 3fem.sgBAS.NPAST)  
 ‘the door is open’ (lit., (someone) having opened the door it stands).

Clause chaining markers *-ku* (SS)/*-k* (DS) ‘completive: after’ are also polysemous. Their major meaning is to do with relative time ‘after’, but they often have causal overtones. (10) allows for two readings: ‘after we were worried, we cried’ or ‘because we were worried, we cried’.

- (10) [ata wukə-ku]<sub>SC</sub> [gra-dian]<sub>FC</sub>  
 then worry-COMPL.SS cry-1plBAS.PAST  
 Then, after we were worried/because we were worried, we cried

If the focal clause is cast in future, the supporting clause has a further overtone of real condition. (11) allows for three readings, each of which can be disambiguated by the context. In the story, the conditional reading was the preferred one: the man was not sure he was going to hit the mysterious woman since he knew she was a spirit:

- (11) [amɔwa n əbi-ar vya-tuə-k]<sub>SC</sub>  
 bow + COMIT arrow-LINK + INST hit-1sg-COMPL:DS  
 [kiya-k-na]<sub>FC</sub>  
 die-FUT-ACT.FOC + 3fem.sgBAS.NPAST  
 After/because/if I hit (her) with a bow and arrow, she will die

The generic completive verb *napa*—used exclusively in dependent medial clauses (see Table 1, row 10)—helps disambiguate the pervasive polysemy of *-ku/-k* forms. The verb *napa-* forms a complex predicate with a verb marked with the simultaneous *-n*. Such a complex predicate can only have a temporal reading of ‘after’, and there is a strong overtone of activity being over and done with. Compare (12) and (10):

- (12) [ata {wukə-n napa-ku}]<sub>SC</sub> [gra-dian]<sub>FC</sub>  
 then worry-SIM COMPL.VB-COMPL.SS cry-1plBAS.PAST  
 Then, after we were worried/\*because we were worried, we cried

The complex predicate in { } in (12) is strictly monoclausal synchronically, though it obviously originates in a biclausal structure.

In addition to conditional overtones of structures like those in (11), Manambu has a special medial form *-ga:y* with the meaning of ‘unlikely condition’. It cannot be negated and always occurs followed by another supporting clause, expressing real condition, as in (13) and (27c), or possible consequence (§3.5). The focal clause is cast in future or contains a command.

- (13) [væra- **ga:y**]<sub>SC?</sub> [væra-da- **k**]<sub>SC</sub>  
 come-COND          come-3pl-COMPL.DS  
 [na:gw yapi-kə-bana]<sub>FC</sub>  
 sago          buy-FUT-1plSU.NPAST + 3fem.sgBAS.NPAST  
 If (in the unlikely event that) they (the bush people) come, when/if they  
 come we will buy sago (from them)

A *-ga:y* clause can be introduced with the contrastive connective *aw* (27c). The marker *-ga:y* is a rare instance of a morpheme whose one and only meaning is ‘unlikely condition’ (see §4.2 of Dixon, Chapter 1). The semantic type of ‘unlikely condition’ (itself cross-linguistically rare) spans both possible and counterfactual condition (a *-ga:y* clause can occur followed by a counterfactual conjoined clause). Unlike any other dependent clause, a *-ga:y* clause does not occur as the only supporting clause: it always needs to be contextualized as belonging to the domain of possible or counterfactual condition, or possible consequence.

Clauses marked with *-ga:y* are rare and somewhat problematic: a *-ga:y*-marked verb is always contiguous with the following verb and they form one intonation unit. They could be analyzed as forming one clause with the subsequent dependent clause predicate; or they could be regarded as separate supporting clauses.

Clause chaining is also used to express cause: then, the predicate of a dependent clause takes the suffix *-lək*, as in (8). This suffix is a product of recent grammaticalization of the (functionally unmarked) distal demonstrative feminine dative *a-l-ək* ‘for that-feminine’. The form *alək* ‘this is why, because of that’ is also used as a clausal connective (see §5.1), and the two can occur in one sentence (14).

Unlike all other ‘medial’ verb forms, causal forms can take habitual aspect and action focus markers. This is a feature they share with main clauses.

- (14) [də da-də-lək]<sub>SC</sub>,                      [(alək)      wi      waku-dian]<sub>FC</sub>  
 he go.down-3masc.sg-CAUSAL this.is.why house go.out-1plBAS.PAST  
 Since it (plane) went down, [this is why] we left our houses (when the  
 war broke out)

In (14), the connective is optional. As shown in §5.1, it can occur as an ‘afterthought’ after the focal clause.

### 3.2. Conjoined clauses

Conjoined clauses have no segmental marking: unless negated, they are marked just by the intonation on the Supporting clause. Unless the Supporting clause is marked with irrealis, the sentence is inherently polysemous: it can have a

temporal or a real condition reading (similar to (11) above). The Focal clause may, or may not, be cast in future.

- (15) [lap kə-kwa-bana]<sub>SC</sub> [gu  
 banana eat-HAB-1plSU.NPAST + 3fem.sgbas.NPAST water  
 yasa-kwa-na]  
 experience.thirst-HAB-ACT.FOC + 3fem.sgbas.NPAST  
 When/if we eat banana, we feel thirsty (lit., ‘there is experience of thirst  
 with respect to water’)

If the Supporting clause is marked as future/irrealis, and the Focal clause is not, the preferred reading is that of Possible condition. The Focal clause may or may not be cast in future.

- (16) [bap war-k-la]<sub>SC</sub>  
 moon go.up-FUT/IRR-3fem.sgsu.NPAST + 3fem.sgbas.NPAST  
 [wa:l ja ma:]<sub>FC</sub>  
 rain fall:NEG FUT.NEG  
 If the moon comes up, it won’t rain

Marking both Supporting and Focal clauses as irrealis ensures a Counterfactual conditional reading:

- (17) [kə tami: day kurə-kə-dana]<sub>SC</sub>  
 DEM.PROX.fem.sg area they take-FUT/IRR-3plSU.NPAST + 3fem.sgbas.NPAST  
 [a ñan akəs rə-kə-bana]<sub>FC</sub>  
 then we NEG.IRR stay-IRR-1plSU.NPAST + 3fem.sgbas.NPAST  
 If they (Japanese) had taken this area (New Guinea), then we would not  
 have been here

We can recall, from §1.1, that future and irrealis have the same marking in the positive form, but are distinguished under negation, if in main clauses (we can recall that dependent clauses are negated in the same way: see Table 1). Examples like (16) and (17) are ideal for distinguishing possible and counterfactual condition. However, if a Focal clause contains a positive future/irrealis form, the resulting sentence is ambiguous: the condition can be possible, or counterfactual.

- (18) [vki-ma:r-k-la]<sub>SC</sub>  
 go.across-NEG.DEP-FUT/IRR-3fem.sgsu.NPAST + 3fem.sgbas.NPAST  
 [da-k-na-wun]<sub>FC</sub>  
 go.down-FUT/IRR-ACT.FOC-1sgbas.NPAST  
 If she does not go across, I will go down (to meet her)—Possible condition  
 If she had not gone across, I would have gone down (to meet her)—  
 Counterfactual condition

This polysemy can be disambiguated by context (or by negating the focal clause). Having more meanings distinguished in negative than in positive clauses is typologically unusual (see Aikhenvald and Dixon 1998).

### 3.3. *Purposive clauses*

Purposive clauses differ from other dependent clauses in that they can be pre- or postposed to the main clause. They distinguish different-subject and same-subject form (the latter cannot be negated, possibly, because of their nominal origin: Aikhenvald 2008a: 466–506). These clauses are straightforwardly used for purpose linking—see (4), (5), and (19).

- (19) [də-kə-k      kamna:gw    kui-kə-tua]<sub>SC</sub>  
       he-LINK-DAT    food            give-FUT-1sgSU.NPAST + 3fem.sgbAS.PAST  
       [kə-də-kəkək]<sub>FC</sub>  
       eat-3masc.sg-PURP.DS  
       I will give him food (for him) to eat

Whether the purposive-marked dependent clause or the main clause is focal depends on the context. This property sets it apart from other medial clauses. In (5), the main activity is the Water spirit's journey, that is, his 'coming up'. In (19), the rest of the extract of the text is about the starving man eating: the purpose is the main activity, and can thus be considered the focal clause. This is reminiscent of Akkadian (examples (25–6) in Chapter 2) where pragmatic considerations help determine which clause is supporting and which is focal in structures involving purpose.

### 3.4. *Clause linking with case markers, and suffix 'like'*

In a number of languages of the world, case markers are used as clause linking devices (see a typological overview in Aikhenvald 2008c; Genetti 1991). Table 2 in §3.5 of Chapter 4 illustrates numerous clause linking usages of locational cases in Kham. Akkadian (Chapter 2) and Konso (Chapter 14) employ some adpositions to link clauses. Only two of nine case forms in Manambu are uncontroversially used this way. Following the general principle in Table 1, if subjects of dependent and main clause are the same, the predicate of the dependent clause is uninflected, and the case marker attaches directly to the verb root. The allative-instrumental *-Vr* can only occur in same-subject clauses expressing Real Manner or 'means' linkage.

- (20) [ñam                    kuyar]<sub>SC</sub>                    [kui-kwa-na]<sub>FC</sub>  
       chewed.food    give + ALL/INST    give-HAB-3fem.sgbAS.NPAST  
       She used to give (food to children) by giving (them) chewed food

The substitutive *-yæy* attaches to the root without the subject marker if the subjects of the two clauses are the same (21), and to the root plus the subject marker if they are different (22).

- (21) [awarwa warya-yæy]<sub>SC</sub> [aka kəp  
 RECIP fight-SUBST:SS then just  
 lakati-dana]<sub>FC</sub>  
 sort.out-3plSU.NPAST + 3fem.sgbAS.NPAST  
 Instead of fighting each other, they just sorted it out

The meaning is that of Vr, rejection ('instead of'), or Vs, suggestion ('rather than'). However, in a different context a more appropriate interpretation is 'in exchange for'. (22) comes from a story about a man who had killed the snake's children. The snake says (22), before she kills the man as a revenge for what he had done to her little ones:

- (22) [wun-a-di ñanugw vya-məna-yæy]<sub>SC</sub>  
 I-LINK-pl children kill-2masc.sgsU.NPAST + 3fem.sgbAS.NPAST-SUBST:DS  
 [wun-aba:b mən-a:m vya-kə-na-wun-ək]<sub>FC</sub>  
 I-TOO you.masc-LINK + OBJ hit-FUT-ACT.FOC-1fem.sgbAS.NPAST-CONF  
 In exchange for you killing my children, I will also kill you

Out of context, this could be understood as 'Instead of you killing my children I will kill you'. But within the story this makes no sense: the snake's children have already been killed. We conclude that this type of linking may be interpreted as a new, 'quid pro quo', subtype of 'alternative' linking. Examples of linking with *-yæy* are rather rare in texts, and in conversations.

Not so with the derivational non-word-class-changing suffix *-pək* 'like' (see §1.1). This very frequent suffix attaches to a fully inflected verb, and expresses manner—both real, as in (23), and hypothetical (24):

- (23) [kwasa-ñanugwa:k kamna:gw  
 small-children + PL + LINK + DAT food  
 kui-kwa-bana-pək]<sub>SC</sub>  
 give-HAB-1plSU.NPAST + 3fem.sgbAS.NPAST-LIKE  
 [kui-lə-d]<sub>FC</sub>  
 give-3fem.sgsU.NPAST-3masc.sgbAS.NPAST  
 She gave (him food) like we give food to children (chewing it in her mouth and putting it in his)
- (24) [kwa:m tə-ma:r-na-pək]<sub>SC</sub> [məkmək  
 crazy be-NEG.DEP-ACT.FOC + 3fem.sgbAS.NPAST-LIKE quiet  
 rə-na]<sub>FC</sub>  
 sit-ACT.FOC + 3fem.sgbAS.NPAST  
 She is sitting quietly as if she were not crazy (we know she is)



A manner clause marked with *-pək* differs from other non-main clauses in that it can head an intransitive predicate, as in (36). It can also be inserted within a focal clause, as in (31). A manner adverb would be used in the same way.

3.5. *Nominalizations marked with dative-aversive case, and ‘in the event’ clauses*

Nominalizations marked with dative-aversive case express Possible Consequence (III), which is always negative in itself. A nominalization cannot be negated. The focal clause is often, but not always, negative. The supporting clause can precede or follow the focal clause.

- (25) [akatawa kətay-kəti væn tə-di]<sub>FC</sub>  
 like.that look.around-REDUP see + SIM be-3plBAS.PAST  
 [siapan dəya-di jabər war-warək]<sub>SC</sub>  
 Japan they + LINK-pl ship go.up-REDUP.NOMZ + DAT  
 They were looking around like that, lest the Japanese ships come up (river)

This usage is consistent with the aversive meaning of the dative case: for instance, a dative marked noun *asa:k* (dog + LINK + DAT) may mean either ‘for a dog’, or ‘for fear of a dog’; in its latter meaning, *asa:k* can be used as a short warning ‘beware of a dog!’

Dative-aversive marked nominalizations are also used in premonitions—that is, expressions of negative consequence which cannot be averted. (26) is the typical way of saying that cats pee inside the house as a sign of the possible negative consequence that people would die:

- (26) [du-ta:kw kiya-kiya-k]<sub>SC</sub> [yala-wiya:m wus  
 man-woman die-REDUP.NOMZ-DAT belly + LINK-house + LINK + LOC pee  
 yi-kwa-na-di a-di pusi]<sub>FC</sub>  
 go-HAB-ACT.FOC-3plBAS.NPAST DEM.DIST-pl cat  
 Those cats pee inside the house as a portent of people dying (lit., With  
 the possible consequence of people dying, those cats pee inside the  
 house)

A possible consequence which is not necessarily negative is cast differently. A dependent clause—whose predicate has the same form as an aversive-marked nominalization except that it undergoes reduplication of the final syllable—is introduced with the linker *kəpa:b* ‘in the event’;<sup>3</sup> both are underlined in (27):

<sup>3</sup> Monosyllabic verbs undergo full reduplication and thus are indistinguishable from aversive-marked nominalization. Predicates of ‘in the event’ clauses can be negated, unlike the nominalizations.

- (27) (a) [və-jəbər tə-kə-tua]<sub>FC</sub>  
look-CUST be-FUT-1sgSU.NPAST + 3fem.sgbAS.NPAST
- (b) [kəpa:b ñən wukəmar-marək]<sub>SC</sub>  
in.event you.fem forget-REDUP + DAT
- (c) [aw wukəmar-ga:y]<sub>SC?</sub> [wukəmar-ñən-ək]<sub>SC</sub>  
then:CONTR forget-COND forget-2fem.sg-COMPL.DS
- (d) [wun wa-kə-tua-ñən]<sub>FC</sub>  
I say-FUT-1sgSU.NPAST-2fem.sgbAS.NPAST
- (e) [[ñən-a hat  
you.fem-LINK + fem.sg hat  
kə-na-y aka tə-na]<sub>SC</sub>  
this-CURR.REL-DIST there be-ACT.FOC + 3fem.sgbAS.NPAST
- (f) [api-ñəga:m kwa-na]<sub>FC</sub><sub>SR</sub>  
top-mosquito.net + LINK + LOC stay-ACT.FOC + 3fem.sgbAS.NPAST  
I will be watching in the event you forget (to take your hat), but  
(contrast) in the unlikely event you forget, if you forget, I will say  
to you: “Your hat is over here (in a farther location we both know  
about), it is on top of the mosquito net”

#### 4. Speech reports

The last three lines of (27d–f) contain a speech report, a highly frequent construction in Manambu (see Aikhenvald 2008b). Direct speech reports in Manambu may involve a speech act—that is, somebody saying something—as in (27) and (31). Or they may extend beyond this and express internal speech and thought, desire and intention of third person, warning, cause, and purpose, similarly to Aguaruna and Galo (Chapters 3 and 7), and numerous other languages, especially from the New Guinea area. If a speech report does not imply an actual speech act, it is not introduced by the optional *ata* ‘thus’ (unlike in (31)). In (28), a speech report expresses cause.

- (28) [du-a-k wa-ku]<sub>SR=SC</sub>  
man-LINK-DAT say-COMPL.SS  
[warya-dana]<sub>FC</sub>  
fight + come-3plSU.NPAST + 3fem.sgbAS.NPAST  
They are fighting because of a man (lit., Saying ‘for/because of man’  
they fight)

In (29) a speech report expresses a warning, that is, possible consequence. The speech report itself contains an irrealis-marked independent clause meaning ‘might’.

- (29) [ata tabu-di]<sub>FC</sub> [[a-di a:s  
 then run.off-3plBAS.PAST DEM.DIST-pl dog  
 vya-kə-dana-dian]<sub>SR</sub> wa-ku]<sub>RC=SC</sub>  
 attack-IRR-3plSU.NPAST-1plBAS.NPAST say-COMPL.SS  
 Then they ran away, so that the dogs may not attack them (lit., having  
 said “Those dogs might attack us”)

In each case, the speech report is a supporting clause. Speech reports implying a speech act are questioned with *ata* or *ata ata* ‘what, how?’, while ‘extended’ speech reports (that is, speech reports which do not imply saying anything) are questioned differently, depending on their meaning. A question to the contents of speech reports in (28) and (29) would contain *agwajapək?* ‘why?’<sup>4</sup>

Speech reports are not direct objects of the verb of speech *wa-*. Unlike most types of grammatical relations, they are never cross-referenced on the verb (cf. (27); and see §1.1). Yet they are obligatory, in the sense that *wa-* requires a speech report (similarly to many languages of the world: Aikhenvald 2008b).

## 5. Clause linking involving main clauses

### 5.1. Connectives

Languages with extensive clause chaining tend to be poor in connectives. Manambu is of this type. The causal connective *alək* ‘this is why’ is a recent development (see (14) and discussion in §3.1). It typically occurs at the beginning of a focal clause, if the unmarked supporting clause provides an explicit statement of reason, as in (30):

- (30) [wun-aba:b bagwum tə-kə-dəwun-ək]<sub>SC</sub>  
 I-TOO ceremony + LINK + LOC be-FUT-1mASC.SGBAS.NPAST-CONF  
 [alək sər yi-kə-bana]<sub>FC</sub>  
 this.is.why tomorrow go-FUT-1plSU.NPAST + 3fem.SGBAS.NPAST  
 I too will be at the ceremony, this is why we will go tomorrow

It can occur in the focal clause, if the supporting clause is marked with the clause chaining *-lək*, as in (14) (but not if the supporting clause is marked with the completive clause chaining suffixes *-ku* (SS)/*-k* (DS) which can have a causal meaning, as in (10–11)).

The connective *alək* can occur after the focal clause in apposition to the supporting clause in ‘elaboration’ linking, as an additional confirmation that

<sup>4</sup> Speech reports presupposing a speech act often have a ‘theatrical’ effect: the reporter imitates what the original speaker had said. There is no such option for extended speech reports.

this is the reason why. An example is within the speech report in (31). The connective is an afterthought (and is preceded by a pause).

- (31) (a) [yibunmi [ñaj Səpaywus  
 chief uncle Səpaywus  
 tə-də-l-pək]<sub>SC=manner</sub>  
 be-3masc.sgSU.PAST-3fem.sgbAS.PAST-LIKE
- (b) ata wa:d]<sub>RC</sub>  
 then say + 3masc.sgbAS.PAST
- (c) [[mən wa ta:kw  
 you.masc DEM.PROX.ADDR + fem.sg woman  
 səbən-ən akray]<sub>SC</sub>  
 return-SIM IMP + bring  
 [vya-kə-dana-dəmən-ək]<sub>FC</sub> [PAUSE] alək]<sub>SR</sub>  
 kill-FUT-3plSU.NPAST-2masc.sgbAS.NPAST-CONF PAUSE this.is.why  
 The chief, (who is) the same as uncle Səpaywus (former chief, that  
 is, local member of Council) used to be, then said: “You bring this  
 woman back, (because/or else) they will kill you, this is why”

A complex connective *a-lə-k tə-ku* ‘because, as a result of that’ combines the semantics of cause and result. Its etymology is transparent, and is reflected in the gloss in (32). This is an instance of a clause chaining construction grammaticalizing into a connective.

- (32) (a) [də ta:kw ma: kər]<sub>SC</sub>  
 he wife NEG marry:NEG
- (b) [alək tə-ku  
 that.is.why=DEM.DIST-fem.sg-DAT be-COMPL.SS  
 də-kə wa:ñ kusə-rəb]<sub>FC</sub>  
 he-OBL + fem.sg line finish-FULLY  
 He didn’t get married, as a result his genealogical line finished  
 completely

The connective *atawata:y* (from *ata wa-ta:y* ‘then say-COTEMP’) is used in a similar way. This is an interesting example of grammaticalization of a medial clause form of the verb of speech, congruent with its marking cause in speech reports (see §4). This is strikingly similar to the grammaticalization of the speech verb *əm-* ‘say; tell’ as part of the connective translatable as ‘(being) thus, (that fact) being so; because of (that fact)’ in Galo (§3.1 of Chapter 3).

The connective *aw* expresses contrast, as in (27c), ‘in the unlikely event you forget’, where it appears on a supporting clause with a clause chaining marker.

*Aw* is widely used for linking independent clauses (e.g. ‘I live in Malu, but (*aw*) I am from Avatip’), and also marks unexpected subsequent information in the focal clause—combining the meanings of temporal succession and contrast:

- (33) [kian kian kian                      wa-na]<sub>SC</sub>  
 INTERJ INTERJ INTERJ    say-ACT.FOC + 3fem.sgBAS.NPAST  
 [aw        kə-na-wur                      ya-na]<sub>FC</sub>  
 CONTR    DEM.PROX-CURR.REL-UP    come-ACT.FOC + 3fem.sgBAS.NPAST  
 (The hawk) says: kian kian kian, then (unexpectedly) she comes up  
 (a tree)

The connective *aw* has another meaning: that of open disjunction and alternative (‘in turn’), linking NPs and clauses. Then it precedes each NP or each clause, as in *aw kami: aw lau-lap* (CONTR fish CONTR ripe-banana) ‘(we eat) sometimes fish sometimes banana (or both)’, and *aw yi-n aw ya-n* (CONTR go-SIM CONTR come-SIM) ‘either going or coming, going and coming to and fro in turn’. Nevertheless, the Tok Pisin disjunction *o* ‘or’ is used to link NPs (and more rarely clauses). We return to the functional motivation for this in §6.

The connective *a* ‘then/so, but’ marks result, as in (34), and also contrast, as in (35).

- (34) (a) [kə-də                      tami: miyawa du-ta:kw        adəka  
           DEM.PROX-masc.sg    area    all        man-woman there:masc.sg  
           ra:d]<sub>SC</sub>  
           sit + 3masc.sgBAS.PAST  
       (b) [a        akəs        vərə-k-na-di]<sub>FC</sub>  
           then/so NEG.IRR come.across.to.speaker-IRR-ACT.FOC-3plBAS.NPAST  
           All the people stayed in this area, so (the enemies) would have  
           never come in
- (35) [wun Malu-adəwun]<sub>SC</sub>        [a    ta:y        wun  
       I        Malu-1masc.sgNOM.AT but before I  
       Avatəp-adəwun-ək]<sub>FC</sub>  
       Avatip-1masc.sgNOM.AT-CONF  
       I am of the Malu village, but before I was from Avatip village

This connective is suspiciously similar to the feminine distal demonstrative ‘that’. Feminine is the functionally unmarked gender in Manambu, and the distal demonstrative has anaphoric functions of all sorts: this explains a possible link between it and the connective.

Unlike *alək* in (31), the connectives *aw* and *a* cannot be postposed to the clause or used as afterthoughts. The connectives *alək* and *aw* are primarily clause

linking devices (and *aw* can also link NPs), while *a* and *atawata:y* also link sentences within discourse. (Another connective, *ata* ‘then’, does just that.)

Connectives mark focal clauses: these clauses refer to the central activity of the sentence, and they are the ones which contain foregrounded information central for the subsequent discourse. This may be another definitional feature of focal clauses. But since sentence linking within discourse units lies outside our scope here, I will leave it at that.

### 5.2. Apposition of main clauses

Apposition of main clauses covers a number of semantic types, including elaboration, as in (36), an answer to a question ‘What is the clan name that I should use to address her?’ The second, focal clause, provides further details as to what to say:

- (36) [wun-a:k  
 I-LINK + DAT  
 wa-kə-ñəna-pək-a]<sub>SC</sub>  
 say-FUT-2fem.sgsu.NPAST + 3fem.sgbas.NPAST-LIKE -3fem.sgnom.AT  
 [lə-kə-k bap aw]<sub>FC</sub>  
 she-OBL-DAT ‘Moon’ IMP.say  
 It is like (the same way as) you say to me, (that is) say ‘Moon’ to her  
 (that is, address her as ‘Moon’ which is the totem of her clan)

Another example of elaboration is the speech report content in (27) (‘Your hat is over here, it is on top of the mosquito net’).

Apposition often marks consequence or cause, as in (31) (‘give the woman back, (because/or else) they will kill you’). This illustrates an additional point: in Manambu discourse, commands tend to be used in apposition to another clause, explaining the reason or the consequences. Or they appear in apposition reflecting ‘rejection’ or ‘suggestion’ linking—see (37).

- (37) [ñab-a:r waku-tukwa]<sub>SC</sub> [kukə-tañəka:m gu  
 Sepik.River-LK + ALL go.out-PROHIB back-tank + LINK + LOC water  
 ayakw]<sub>FC</sub>  
 IMP.wash  
 Don’t go out to the Sepik River (to bathe), wash at the back of the  
 water tank!

Similar ‘contextualization’ of commands is a recurrent feature of the world’s languages: in Australian languages Yidj, Warlbiri, and Western Desert language, a negative command (in the form of an imperative) is typically followed by a positive command (see Dixon 1977: 351-2). This

strategy is based on a common sense principle: the more explanation or reason is given for a command or a request, the more persuasive one sounds, and the more successful the entreaty is bound to be (see Cialdini 1993: 4; 138–40, for some amusing examples). Alternative ‘rejection’ and ‘suggestion’ linking does not always involve commands—this is just a pervasive tendency.

Apposition of clauses is used to express temporal succession corresponding to ‘before’—see the discussion of example (6) in §3.1, and (38):

- (38) [wun kiyaʉ ta:y]<sub>SC</sub> [də kukər kiya-kwa-d]<sub>FC</sub>  
 I die.PERM.1sg before he after die-IMP-3masc.sg  
 Let me die before he dies (lit. ‘Let me die first, may he die after (me)’)

That the action of the first clause precedes that of the second clause is clear from the presence of *ta:y* ‘before’ (used, with the same meaning, if two main clauses are linked with the connective *a*: see (35)).

This takes us to the semantic wealth of apposition. The semantic relations between apposed clauses depend heavily on the context, the meanings, and the categories of the supporting clause. Consider the frustrative modality. It indicates that the activity was to no avail—that is, the desired result was not achieved. A frustrative clause is always accompanied by another main clause in apposition to it, indicating the actual consequence, or result—see (39).

- (39) [kwakə-yakəp]<sub>SC</sub> [adiya kwaya-di]<sub>FC</sub>  
 wait-FRUST there:pl stay.in.mourning-3plBAS.PAST  
 (They) looked (for him) in vain, (as a result, since they presumed him dead) they stayed in mourning

Frustrative is not a clause linking device; but it ensures a result reading for the apposition of clauses, acting ‘as if’ it were a connective.<sup>5</sup>

Apposition can be used for contrast if one clause is negated or both involve antonyms (‘you are big, I am small’), and also for ‘alternating’ alternatives: then *nak* ‘one; another, the other’ will appear in each clause. SC and FC are indistinguishable—but this ‘alternating’ linking can be seen as part of elaboration linking with the first clause in (40) as the focal clause:

- (40) (a) [du viti-abər]<sub>FC</sub>  
 man two-3dUNOM.AT  
 (b) [[nak swakwas kudi wa:d]<sub>SC/FC</sub>  
 one wild.pigeon language speak + 3masc.sgbas.npast

<sup>5</sup> According to Sparing-Chávez (2003), in Amahuaca frustrative operates as a de facto clause or sentence connective. Similarly, in Iquito (Chapter 6) it appears in counterfactual conditional linkages, and in Aguaruna (Chapter 7) it appears in temporal linkages with the meaning of ‘before’.

- (c) [nak tapwuk kudi wa:d]<sub>SC/FC</sub>]<sub>SC</sub>  
 one hen language speak + 3masc.sgbas.npast  
 There were two men, one spoke wild pigeon's language, the other  
 one spoke hen's language

Apposition of main clauses involves a short pause between them. Unlike conjoined clauses and clause chains there is no special intonation contour associated with it.

## 6. Summary

We will now summarize the main points relevant for Manambu clause linking.

(a) **Semantic types.** Clause linking in Manambu is rich in terms of the semantic types—just about all the types discussed in Chapter 1 are attested in the language. An additional subtype of ‘Alternative’ linking is an ‘in turn’, or ‘quid pro quo’ linking discussed in §3.4 (example (22)). The language avoids unordered addition: any sequence of clauses tends to be interpreted as being related—most frequently in terms of temporal succession, relative time, or cause. This takes us to the issue of the pervasive polysemy between the semantic relations of relative time, cause, and condition.

(b) **Semantic overlaps, and polysemy resolution.** The overlap between semantic types of time, cause, and condition follows cross-linguistic tendencies. What makes Manambu unusual is the existence of regular mechanisms for disambiguating these if necessary. We saw in §3.1 that clauses marked with the completive *-k/-ku* can be used for any of these three meanings. But there is a dedicated mechanism for just relative time (generic completive verb *napa-*: (12)), a special causal clause (14), and a plethora of mechanisms to express conditions.

Speech reports are also polysemous: they express purpose, cause, and possible consequence. A variety of formal features differentiates those speech reports which do not imply an actual speech act from those that do.

Connectives—most of them products of recent grammaticalization—tend to be semantically simple. In contrast, apposition of main clauses covers a variety of semantic types of clause linking, and the exact meaning depends on the context and also the form of the predicate: we can recall that if the first clause in a sentence contains a frustrative form, the second one in apposition to it will convey result. Similarly to Iquito (Chapter 6), apposition of dependent clauses has a different semantic effect: if two or more dependent clauses of the same type are in apposition, the meaning is that of temporal succession



or elaboration. But if dependent clauses are of different types, the meaning of temporal succession becomes more prominent. This topic in itself would require a separate study (see Aikhenvald 2008a: 446–506).

Generally speaking, the meaning of clause linking tends to be determined by the linking morpheme (be it a connective, or a clause chaining marker, or just the pitch, as in conjoined clauses) and also, at least potentially, by the categories expressed in the verb (see §3.2).

(c) **Areas of semantic wealth.** Just like in many other languages, clause chaining is predominantly used for temporal linking, and also for manner and cause. The semantic subtypes of temporal linking in Manambu reflect types of relationship in time which are not available in main clauses. And some of these relationships are more elaborate than others. Three markers express temporal contiguity and sequence, one refers to ‘after’, and one spans ‘before, while, and after’. The lack of a dedicated marker for ‘before’ is compensated for by apposition of clauses, with the Focal clause containing the adverb ‘before’.

Why is the semantic relationship ‘before’ less elaborate than ‘after’, ‘while’, and others? A partial reason may lie in the way sentences are linked within discourse, to ensure textual coherence. A highly frequent technique involves bridging repetition (cf. Chapter 7): the predicate of the last clause is repeated in a dependent medial clause, in a form marking simultaneity or completed action. An English equivalent would be: ‘He went. Having gone, he arrived in the village. Having arrived, he said...’ This pervasive sentence linking ‘glue’ leaves little space for ‘before’ linking. But this goes beyond linking clauses.

Some semantic types in Manambu are plainly richer than others. Real manner can be marked with a case on verb (§3.4), with polysemous clause chaining *-n* (§3.1), or the suffix *-pək*—which is the only one also used for ‘hypothetical manner’, ‘as if’. Real and potential condition is expressed with a polysemous completive *-ku/-k* (§3.1); polysemous conjoined clauses (§3.2) can express real, potential, or counterfactual condition, depending on whether the SC and/or FC contain an irrealis verb form. There is an additional option: an unlikely condition expressed with the clause chaining *-ga:y*. This has to be always specified by another clause with a conditional, or possible consequence, meaning which follows the *-ga:y* clause (cf. (13), (27)). The unlikely condition can thus be analyzed as a hierarchically overarching generic concept, whose reference has to be narrowed down by a more specific term.

(d) **Clause linking, and the influence of Tok Pisin.** Just like every area of Manambu grammar and lexicon, clause linking devices offer two extremes—some devices are highly polysemous, and others are highly specialized. And

this is where the influence of Tok Pisin, the national language of Papua New Guinea (familiar to every Manambu speaker), comes in.

Tok Pisin offers speakers an option of a ‘shortcut’, doing away with areas of complexity. The Tok Pisin *sapos* ‘if’ is gradually entering the language as a clause-initial adverb. *Sapos* (from English *suppose*) can be used for any condition: it does not exactly fill a ‘gap’, but provides a conveniently vague term.

Another recent borrowing, the disjunction *o* ‘or’, does the exact opposite. We saw in §5.1 that the connective *aw* can be used as an open disjunction. However, this is not its only meaning: examples (27) and (33) show that it expresses contrast and unexpected information in general. In contrast, the Tok Pisin *o* is a dedicated disjunction. In this meaning, it is gradually making its way into Manambu (where it links NPs, and occasionally clauses). Having *aw* as a marker of contrast is perhaps the reason why Tok Pisin *tasol* ‘but’ is very rarely used as a linker in Manambu.

An unusual feature of Manambu is the emergence of connectives, grammaticalized from dependent clauses marked for ‘same subject’. (This is in itself not universal: in Aguaruna (Chapter 7) conjunctions are grammaticalized from recapitulating verbs in dependent clauses which do not have to be marked for same subject.) The connective *alək tə-ku* ‘because, as a result of that’ consists of ‘that.is.why’ (formed from DEM.DIST-fem.sg-DAT) and be-COMPL.ss, and would literally translate as ‘being for that (reason)’. The connective *atawata:y* comes from *ata wa-ta:y* (‘then say-COTEMP.ss’), literally ‘then saying’. In many Papuan languages with switch reference, same-subject marking has additional overtones of topic continuity, while different subject correlates with change in topic (see Reesink 1983). This tendency also holds for Manambu, and could be the reason why same-subject, rather than different-subject, switch-reference forms are being grammaticalized in this function. Most languages of the Sepik area with extensive switch-reference marking have no connectives at all—this is why Manambu is unusual in the area in which it is spoken.

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# The Semantics of Clause Linking in Iquito<sup>1</sup>

LEV MICHAEL

## 1. Introduction

This chapter describes the clause linking constructions (CLCs) of Iquito, a Zaparoan language of northern Peruvian Amazonia, in terms of the distinction laid out in Chapter 1 between semantically focal clauses (FCs) and semantically supporting clauses (SCs).

In comparison to some of the other languages in this volume (e.g. Akkadian, Chapter 2; Martuthunira, Chapter 11), Iquito makes a large number of semantic distinctions in its CLCs. Nevertheless, Iquito CLCs show considerable structural uniformity. As seen in Table 1, most Iquito CLCs fall into one of two structural types: (1) one in which SCs exhibit fully inflected main verbs, where clause linking markers (CLMs) are SC-initial syntactic elements or collocations of elements; and (2) constructions in which SCs exhibit nominalized main verbs, where CLMs are postpositions cliticized to the nominalized verb. The first construction type largely exhibits fixed SC FC order, whereas the second type largely exhibits free ordering of SC and FC. Apart from cases of apposition, the only major CLCs that diverge from these two structural types are the possible conditional construction, in which the CLM is a verbal suffix; the counterfactual conditional construction, in which the CLM is a verbal proclitic; and the contrast construction, in which the CLM is a second position clausal clitic appearing in a main clause. Polyfunctionality is pervasive among Iquito CLMs, an issue I discuss in §11.

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TABLE 1. Iquito clause linking constructions

| Construction type                  | §   | Marker; type and location   | SC type; verb | FC type; verb | Order      |
|------------------------------------|-----|---|---------------|---------------|------------|
| Is, Succession (connected)         | 4.1 | <i>huaári, jahuári</i> ; FC-initial SE                            | main; FI      | main; FI      | SC FC      |
| Is, Succession (immediate)         | 4.1 | <i>atii, atíjji</i> ; FC-initial SE                               | main; FI      | main; FI      | SC FC      |
| Is, Succession                     | 4.1 | apposition  | main; FI      | main; FI      | SC FC      |
| Ir, Point Overlap                  | 4.2 | <i>jiíticari</i> ; SC-initial SE                                  | subord.; FI   | main; FI      | free (CLF) |
| Ir, Period Overlap                 | 4.2 | <i>iyácari jiíticari</i> ; SC-initial collocation                 | subord.; FI   | main; FI      | free (CLF) |
| Ir, Point Anteriority              | 4.3 | <i>=ácuji</i> ; PC to SC verb                                     | subord.; NOMZ | main; FI      | free       |
| Ir, Point Anteriority (immediate)  | 4.3 | <i>=íira</i> ; PC to SC verb                                      | subord.; NOMZ | main; FI      | free       |
| Ir, Period Anteriority             | 4.3 | <i>iyácari=ánuura/=íira jiíticari</i> ;<br>SC-initial collocation | subord.; FI   | main; FI      | free (CLF) |
| Ir, Point Posteriority (connected) | 4.4 | <i>=cánihuaaca</i> ; PC to SC verb                                | subord.; NOMZ | main; FI      | free       |
| Ir, Point Posteriority (immediate) | 4.4 | <i>=ícuaji</i> ; PC to SC verb                                    | subord.; NOMZ | main; FI      | free       |
| Ir, Period Posteriority            | 4.4 | <i>jiíticari iyácari yaaja</i> ; SC-initial collocation           | subord.; FI   | main; FI      | free (CLF) |
| Ir, Period Posteriority            | 4.4 | <i>tiiji yaaja tii</i> ; SC-initial collocation                   | subord.; FI   | main; FI      | free (CLF) |
| Ir, Free Relative                  | 4.5 | <i>piyíini yahuíini=jina</i> ; SC-initial collocation             | main; FI      | main; FI      | SC FC      |
| Ic, Possible Conditional           | 4.6 | <i>-sa-cari</i> ; SC verb suffix                                  | subord.; FI   | main; FI      | SC FC      |
| Ic, Counterfactual Conditional     | 4.6 | <i>iti</i> ; SC and FC verb proclitic                             | main; FI      | main; FI      | SC FC      |
| Iic, Cause                         | 5.1 | <i>yamiácuji</i> ; SC-initial SE                                  | main; FI      | main; FI      | FC SC      |
| Iic, Cause (presupposed)           | 5.1 | <i>jiíta</i> ; SC-initial SE                                      | subord.; FI   | main; FI      | FC SC      |
| Iir, Result                        | 5.2 | <i>nihua=ácuji</i> ; FC-initial collocation                       | main; FI      | subord.; FI   | SC FC      |
| Iip, General Purposive             | 5.3 | <i>=íira</i> ; PC to SC verb                                      | subord.; NOMZ | main; FI      | free       |
| Iip, Motion Purposive              | 5.3 | <i>=ánuura</i> ; PC to SC verb                                    | subord.; NOMZ | main; FI      | free       |
| III, Possible Consequence          | 6   | purposive or cause construction                                   | see above     | see above     | see above  |

|  |     |   |                              |  |       |
|--|-----|---|------------------------------|--|-------|
| IVu, Unordered Addition<br>(positive)  | 7.1 | apposition                                      | NA; 1st clause =<br>main; FI | NA; 2nd clause<br>= subord., - <i>ni</i><br>NOMZ | NA    |
| IVu, Unordered Addition<br>(negative)  | 7.1 | <i>nacaá</i> ; 2nd clause-initial SE            | NA                           | NA   | NA    |
| IVe, Elaboration                       | 7.2 | apposition                                      | main; FI                     | main; FI   | SC FC |
| IVc, Polar Contrast                    | 8   | = <i>quija</i> ; 2nd-position FC clausal clitic | main; FI                     | main; FI   | SC FC |
| IVc, Counter-expectation               | 8   | <i>ájapaa</i> ; SC-initial SE                   | main; FI                     | main; FI   | free  |
| IVc, Counter-expectation<br>(negative) | 8   | <i>ájapaqui</i> ; FC-initial SE                 | main; FI                     | subord.; - <i>ni</i><br>NOMZ                     | SC FC |
| Vd, Disjunction                        | 9   | <i>cuúquisacari</i> ; 2nd-clause initial SE     | NA                           | NA   | NA    |
| Vr, Rejection                          | 9   | <i>caa huaa</i> ; SC-initial collocation        | subord.; FI                  | main; FI   | free  |
| VIr, Real Manner                       | 10  | <i>júita</i> ; SC-initial SE                    | main; FI                     | main; FI   | FC SC |
| VIh, Hypothetical Manner               | 10  | <i>naji júita</i> ; SC-initial collocation      | main; FI                     | main; FI   | FC SC |
| VI, Instrumental Manner                | 10  | = <i>jata</i> ; PC to SC verb                   | subord.; NOMZ                | main; FI   | free  |
| VI, Instrumental Manner                | 10  | apposition                                      | subord.; NOMZ                | main; FI   | SC FC |

Notes: Abbreviations: NOMZ: nominalization; FI: fully inflected; PC: postpositional clitic; SE: syntactic element; CLF: subordinate clause-final clitic in SC FC order.

In Iquito, FCs overwhelmingly correspond to main clauses, with only two exceptions: the Result CLC (§5.2) and the Negative Counter-Expectation CLC (§8).

Iquito CLCs exhibit a number of noteworthy features. Iquito temporal linkages draw a number of unusual semantic contrasts, including the immediacy, or lack thereof, of sequential events, as well as whether two events are ‘connected’ in a meaningful sense (see §4). Iquito appears to be the only language in this volume that distinguishes between presupposed and non-presupposed causes (§5.1). Iquito is also the only language in this volume that exhibits an element which functions both as a content interrogative and a CLM (*jiíticari*, see §4.2), a typologically unusual type of polyfunctionality, despite its ubiquity in Indo-European languages. Finally, together with Ojibwe (Ch. 8), Iquito exhibits the unusual pattern of ascribing different meanings to apposite main clauses (temporal succession, §4.1) and apposite subordinate clauses (unordered addition, §7.1).

## 2. Genetic and sociolinguistic background

Iquito is spoken by approximately twenty-five elderly individuals in the *departamento* of Loreto, in northern Peruvian Amazonia. At the time of the European conquest, Iquito was spoken in a contiguous region encompassing the headwaters of the Nanay, Pintuyacu, Chambira, Mazán, and Momón Rivers. Although slavery and forced settlement in mission towns (*reducciones*) led to severe decreases in the Iquito population in the seventeenth and eighteenth centuries, it was the economic bondage following the nineteenth-century rubber boom that led to sudden language shift to Spanish in the early twentieth century. Iquito became moribund in the late 1950s. The remaining speakers of Iquito live in settlements in the Nanay River Basin, near the city of Iquitos, and over half of them live in or near the community of San Antonio de Pintuyacu, where the fieldwork on which this chapter is based was carried out. Present-day ethnic Iquitos devote themselves principally to commercial thatch-gathering and logging, combined with subsistence farming, hunting, and fishing.

Iquito is a member of the Zaparoan family, whose other established members include Andoa (believed extinct), Arabela (~75 speakers), and Záparo (<10 speakers). Iquito speakers indicate that Cahuarano, sometimes listed as a separate language, and now extinct, was a mutually intelligible dialect of Iquito. Three other languages sometimes classified as Zaparoan are Taushiro, Omurano, and Aushiri (Campbell 1997, Wise 1999).

I carried out thirteen months of fieldwork in the community of San Antonio from 2001 to 2006. From 2002 on, I formed part of a collaborative team of linguists working to document, describe, and support the revitalization of Iquito (Beier and Michael 2006). Eastman and Eastman (1963) is the sole prior treatment of Iquito syntax.

### 3. Grammatical sketch

#### 3.1. *Phonology and prosody*

This chapter uses the Iquito orthography developed by the Centro del Idioma Iquito. Graphemes correspond to their IPA equivalents, with the following exceptions: *c*, *qu* = /k/, *hu* = /w/, *j* = /h/, *y* = /j/, and *r* = /r/. Iquito exhibits a contrast between short and long vowels; the latter is marked by doubling the vowel.

Iquito exhibits a two-level tonal contrast, but any given morpheme can bear at most one contrastive tone, resulting in what is commonly called a pitch accent system (cf. Hyman 2007). In Iquito, the tone-bearing unit is the mora. Each phonological word typically has one high tone, though morphologically complex words may possess more than one. If no morphemes in a phonological word carry a lexical high tone, then a high tone occurs on the penultimate mora (Grohman 2006). Lexical high tones are marked with an accent.

#### 3.2. *Word classes and morphology*

Iquito has clearly distinguished classes of verbs, nouns, adjectives, postpositions, and adverbs. Verbal morphology is entirely suffixal (or non-concatenative, see below). Tense and aspect are obligatorily marked, frequently via tense-aspect or directional-aspect portmanteaus; for convenience I do not indicate the null-marked extended current (i.e. present and near future) tense. Nominal morphology is limited to possessive prefixes and optional number suffixes. Adjectives form a medium-sized class with some sixty members, and they agree in number and animacy with the NP-head they modify. Postpositions are a large class with approximately forty members, and are second position NP clitics.

Numerous Iquito morphological processes are non-concatenative, involving target prosodic shapes, fusion, or particular tonal patterns. In this chapter, no effort is made to segment the results of such processes, and the corresponding morpheme glosses are separated by stops (periods), instead of dashes. Iquito also exhibits a bimoraic minimum phonological word requirement, resulting in cliticization of monomoraic elements, such as non-focus pronouns.



### 3.3. *Syntax of main clauses*

Iquito exhibits nominative-accusative alignment and AVO, SV basic constituent order. Peripheral arguments follow the verb; objects and peripheral arguments are freely ordered with respect to each other. Grammatical relations are not overtly marked on core arguments. A contrastive focus position, which may be filled by NPs, adverbs, or adjectives, is found immediately before the A/S position, permitting OAV order.

NPs are frequently extraposed (typically clause initially), for discourse-referent tracking purposes. Extraposed core argument NPs leave a resumptive pronoun in normal argument position; peripheral NPs leave no resumptive pronoun.

All clauses are either realis or irrealis, a difference which manifests only in constituent order (Anderson et al. 2006). In realis clauses, the basic constituent order obtains (i.e. AVO, SV). In irrealis clauses, a position becomes available between A/S and V, which is filled by any postverbal lexical material available to do so, including argument NPs, adjectives, and adverbs. When an object NP fills this position, AOV order arises, as in (22).

### 3.4. *Non-main clause types*

Iquito exhibits relative clauses and two types of complement clauses: ones with fully inflected verbs and ones with nominalized verbs. The latter are distinguished by a particular nominalized form of the verb, the *-ni* nominalization, as in (1), and the fact that the A/S of the clause is typically omitted if coreferential with the A/S of the main clause. In cases of such omission, the O of transitive verbs typically occupies the normal preverbal A position.

Iquito does not exhibit complementizers, except for: (i) reported speech complements, which may optionally be preceded by the element *naji* ‘thus’; and (ii) complements of the nominalized verb *aparáani* ‘begin’ which must bear the postposition *=jina*, as in (2). Complement clauses can be distinguished on functional grounds, as they satisfy verbal argument requirements in the higher clause.

Iquito has externally headed postnominal relative clauses that, in most cases, employ a gap case-recoverability strategy. Relative pronouns are found at the left edge of the restrictive clause.

Subordinate clauses, including complement clauses with fully inflected verbs, can be distinguished via special forms taken by copular verbs (*taa*, as in (5), instead of *tii*, the main clause form), and negation (verbal negation

TABLE 2. Iquito clause types and characteristics

|   | Inflection<br>(T and Asp) | Pivot<br>deletion | Copula     | Negation       | Marker                                   |
|---|---------------------------|-------------------|------------|----------------|--|
| Main Clause                                     | full                      | NA                | <i>tii</i> | <i>caa</i>     | NA                                       |
| Fully Inflected<br>Complement Clause            | full                      | no                | <i>taa</i> | <i>caa</i>     | none ( <i>naji</i> , = <i>jina</i> )     |
| Fully Inflected<br>Subordinate Clause           | full                      | no                | <i>taa</i> | <i>-ji caa</i> | clause-initial syn-<br>tactic element(s) |
| <i>-ni</i> Nominalization<br>Complement Clause  | none                      | yes               | none       | none           | none (= <i>íira</i> )                    |
| <i>-ni</i> Nominalization<br>Subordinate Clause | none                      | yes               | none       | <i>caa</i>     | postposition (2nd<br>position clitic)    |
| Relative Clause                                 | full                      | no                | <i>taa</i> | <i>-ji caa</i> | relative pronoun                         |

suffix *-ji* plus postverbal negation *caa*, as in (23), instead of only preverbal negation *caa*, as in main clauses) (Lai 2006, Anderson 2004). All dependent clauses may be independently negated, apart from complement clauses with nominalized main verbs. These features are summarized in Table 2.

An extrametrical clause-final clitic =*na* is associated with boundaries between fully inflected subordinate clauses and main clauses (Beier 2004). This clitic appears at the end of a fully inflected subordinate clause if it is followed by material from a main clause, as in (5). Note that clauses with nominalized main verbs never bear this clause-final clitic.

#### 4. Temporal linking

Iquito finely distinguishes temporal relations between linked clauses. Two noteworthy semantic features are relevant to some of these constructions: (1) whether two events occur in swift succession; and (2) whether the two events are construed as ‘connected’, as, for example, by forming parts of a plan of action or by one event being seen as a consequence of the other.

Iquito CLCs systematically distinguish relative temporal relations between events construed as points in time from ones construed as enduring for extended periods of time. With the exception of *jíticari* clauses (§4.2), all relative temporal relations between points in time are expressed via SCs with postposition-bearing nominalized verbs. Most constructions that express relative temporal relations between periods of time make use of the noun *iyácari* ‘period of time’.

4.1. *Temporal succession*

Iquito exhibits three temporal succession constructions which are distinguished by their sensitivity to temporal connectedness and aspectual characteristics of the posterior event. All Iquito temporal succession CLCs involve fully-inflected clauses that appear in time iconic order.

Temporal succession between connected events is expressed by a construction in which the adverb *jahuáari* ‘then’ (variant: *huáari*) appears in FC-initial position, as in (1).

- (1) [Cáami quí<sub>A</sub>=nacarii-yaa [tatiicúuni]<sub>COMP:O</sub>]<sub>SC</sub>      **jahuáari**  
 upriver 1sg=want-IMPERV lay.palm.wood.floor.NOMZ **then**  
 quí<sub>S</sub>=cáami      iicua-rií.  
 1sg=upriver.IRR go-MOM  
 I want to lay a palm wood floor upriver, then I will go upriver (to live).

A second CLC neutralizes the distinction between connected and unconnected events, but, using the SC-initial elements *atií* and *atiíji*, characterizes the aspectual qualities of the posterior event. *Atií* is employed in SCs that express punctual actions, or ones with a clear end point, as in (2); whereas *atiíji* is employed in ones which express open-ended or enduring actions, as in (3).

- (2) [Nu<sub>A</sub>=apáraa [rurucúuni=jina]<sub>COMP:O</sub>]<sub>SC</sub>      **atií** nu<sub>S</sub>=ihuiiríi.  
 3sg=begin.IMPERV scream.NOMZ=POSTP:LOC **then** 3sg=faint.IMPERV  
 He begins to scream, and then he faints.
- (3) ... [quia<sub>S</sub>=camaraa      itíini]<sub>SC</sub>      **atiíji** quia<sub>A</sub>=nu<sub>O</sub>=aníruu-ø.  
 2sg=clear.underbrush.IMPERV first, **then** 2sg=3sg.IRR=clear.trees-PERV  
 ... first you clear the underbrush, then you will clear the trees.

The elements *atií* and *atiíji* may also appear in sentence-initial position, where they serve to segment narratives into scenes, and do not serve as clause linking devices. If the posterior action follows swiftly on the heels of the anterior one, however, then the *atií*- or *atiíji*-bearing clause can appear under the same intonation contour as the first clause. In their role as CLMs, then, the two elements are also associated (perhaps defeasibly) with immediacy.

Finally, temporal succession, with no specification of connectedness or aspectual characteristics, can be expressed by the apposition of fully inflected clauses, as in (4).

- (4) [Nu<sub>A</sub>=sacata-qui nuú<sub>O</sub>]<sub>SC</sub>      nu<sub>S</sub>=jimati-rií=na.  
 3sg=circle-PERV 3sg      3sg=leave-MOM=REP  
 He circled it and then he left.

4.2. *Temporal overlap*

Temporal overlap between the events described by two linked clauses is expressed with the element *jíticari* (variant: *jíticarii*) in SC-initial position. Overlap between *points* in time involves no other marker, and SC FC order is free. If the SC precedes the FC, it bears the clause-final clitic =*na*, as in (5).

- (5) [Jíticari taa jahuana<sub>CC</sub> nasi<sub>CS</sub>=na]<sub>SC</sub>, quia<sub>A</sub>=nu<sub>O</sub>=ítuu-Ø.  
 when COP dry swidden=CLF 2sg=3sg.IRR=burn-PERV  
 When the swidden is dry, you will burn it.

Temporal overlap of events construed as extending through *periods* of time is expressed by a very similar construction, distinguished only by the additional element *iyácarí*, which appears in the SC-initial collocation *iyácarí jíticari*, literally, ‘period of time when’, as in (6).

- (6) Nu<sub>S</sub>=asa-qui [iyácarí jíticari quí<sub>S</sub>=capi-qui]<sub>SC</sub>.  
 3sg=eat-PERV period.of.time when 1sg=cook-PERV  
 He ate while I cooked.

4.3. *Relative anteriority*

Iquito exhibits two CLCs that express the relative temporal anteriority between points in time; the two are distinguished by the duration of time they permit between the two events.

The general temporal anteriority CLC is characterized by an SC where the postposition =*ácuji* is cliticized to a nominalized verb, as in (7). When cliticized to a peripheral NP, =*ácuji* yields the spatial interpretation ‘in front of, before’. This postposition thus exhibits a metaphorical relationship between the spatial sense of ‘in front of’ and the temporal sense of ‘before’.

- (7) Quí<sub>S</sub>=naaraa [cu<sub>S</sub>=asáani=ácuji]<sub>SC</sub>.  
 1sg=bathe.IMPERV 1sg=eat.NOMZ=POSTP:BEFORE  
 I am going to bathe before I eat.

Immediate anteriority is expressed by replacing the postposition =*ácuji* with =*íira*, as in (8). Note that the same construction can yield a purposive interpretation (see §5.3); only context eliminates the ambiguity. When cliticized to a peripheral argument, the postposition =*íira* has an allative or benefactive sense. This postposition thus exhibits a metaphorical relationship between the spatial allative sense and the temporal ‘just before’ sense.

- (8) [Jaa nu<sub>S</sub>=sihuaníni=íira  
 already 3sg=arrive.NOMZ=POSTP:JUST.BEFORE

[nu-camariita=jina]<sub>PERI</sub>]<sub>SC</sub>... nu<sub>A</sub>=aáti=quíána...  
 3sg-clearing=POSTP:LOC 3sg=say=PERV.REP  
 Just before arriving in his clearing... he said...

Relative temporal anteriority for a *period* of time is expressed by a CLC in which the collocation *iyácarí=ánuura/=íira* (*jíticari*) (lit., ‘towards the time (when)’) appears in SC-initial position, as in (9). The allative clitics =*ánuura* and =*íira* can be used interchangeably in this construction.

- (9) Nu<sub>S</sub>=raati-ø-curána umáata, [iyácarí=íira yaaja  
 3sg=drink-PERV-REC.PAST.REP a.lot time.period=ALL until.now  
 nu<sub>A</sub>=ámuu-quíaaquí náana<sub>O</sub> najáaja]<sub>SC</sub>.  
 3sg=kill-REM.PAST.PERV tree also  
 He drank a lot, until he killed the tree as well (by using its roots in a decoction).

#### 4.4. Relative posteriority

Relative temporal posteriority between points in time is expressed by two CLCs that additionally specify connectedness or temporal immediacy; there is no CLC that expresses simple relative posteriority of a point in time.

The first CLC is distinguished by a SC with the postposition =*cánihuaaca* cliticized to the nominalized verb, as in (10). This construction can only be used if the events in the two clauses are seen as connected, and not merely juxtaposed in temporal order.

- (10) [Quí<sub>A</sub>=ináani=*cánihuaaca* [iina asúraaja]<sub>O</sub> [cusi=jinacuma]<sub>PERI</sub>]<sub>SC</sub>,  
 1sg=put.NOM2=POSTP:AFTER ART manioc pot=POSTP:INSIDE  
 quí<sub>A</sub>=nu<sub>O</sub>=inata-rií [iinami=jina]<sub>PERI</sub>.  
 1sg=3sg.IRR=put.upright-MOM fire=POSTP:LOC  
 After I put this manioc in the pot, I will put it on the fire.

The second construction is identical, except that =*cánihuaaca* is replaced by the postposition =*ícuaji*, and expresses *immediate* posteriority, as in (11). When cliticized to a peripheral NP, the postposition =*ícuaji* indicates a spatial relationship of ‘projecting from, jutting out of’.

- (11) Quí<sub>S</sub>=maaca-ø-cura [siquitáni=*ícuaji*]<sub>SC</sub>  
 1sg=climb-PERV-REC.PAST wash.NOMZ=POSTP:AFTER  
 [cui=ma=ji]<sub>PERI</sub>.  
 port=DIR:DOWN=ABL  
 I climbed up from the port right after washing.

Relative temporal posteriority of a period of time is expressed by a CLC where the collocation *jíticari iyácarí yaaja* (variant: *iyácarí yaaja jíticari*) appears in

SC-initial position, as in (12). The syntactic element *yaaja* indicates duration of a time period into the present.

- (12) Narata    quí<sub>S</sub>=íiquii    piyíini    iina yahuíini=jina,    jíticari  
 like.it    1sg=live.IMPERV    all    ART day=POSTP:LOC    when  
 iyácarí    yaaja    pí<sub>A</sub>=namitíi-ø-cura    [iimi  
 time.period    until.now    1pl.inc=begin-PERV-REC.PAST    ART.PL.INAN  
 tarahuajúuni]<sub>O</sub>...  
 work  
 I live like this all the time, since we began this work...

A structurally distinct, but functionally equivalent, construction to the one just discussed involves an SC formed from a relative clause whose head is the collocation *tiíji yaaja*, literally, ‘from then until now’, as in (13).

- (13) Quí<sub>S</sub>=tari-aá-cura    [tií=ji    yaaja    tií  
 1sg=be.sad-IMPERV-REC.PAST    there=ABL    until.now    REL:LOC  
 [quí-majáana]<sub>A</sub>    siquii-ø-cura    quíija<sub>O</sub>] SC.  
 1sg-wife    discard-PERV-REC.PAST    1sg  
 I have been sad since my wife left me.

#### 4.5. Temporal free relative

Iquito exhibits a free relative construction, where the collocation *piyíini yahuíini=jina*, literally ‘on every day’, occurs in SC-initial position, as in (14). The SC is not a relative clause (although the construction almost certainly developed from one). Evidence for this assertion includes the fact that it is ungrammatical to place the relativizer *iina* at the left edge of the putative restricted clause, and that the clause-final marker =*na* does not appear at its right edge, both of which are grammatical for relative clauses.

- (14) [Piyíini    yahuíini=jina    nu<sub>S</sub>=árii-yaáriqui    tií]<sub>SC</sub>,  
 all    day=LOC    3sg=pass.by-REM.PAST.IMPERV    there  
 nu<sub>A</sub>=puhuaajii-nii-yaáriqui=na    nuú<sub>O</sub>.  
 3sg=whistle-APPLIC-REM.PAST.IMPERV=REP    3sg  
 Whenever he passed by there, it (a forest spirit) whistled at him.

#### 4.6. Conditional<sup>2</sup>

Iquito exhibits two conditional CLCs: a possible conditional and a counterfactual conditional.

The possible conditional CLC is formed by the suffixation of the discontinuous morpheme *-sa-cari* to the SC main verb. The morpheme *-sa-cari* is

<sup>2</sup> My discussion of Iquito conditionals owes much to Lai's (to appear) work on this topic.

not a conditional morpheme *per se*, but rather a non-assertional morpheme used to indicate hypothetical status. The FC exhibits irrealis order when expressing a temporally definite possible future outcome, as in (15), and exhibits realis order when indicating a temporally indefinite outcome, as in (16), or a past outcome, as in epistemic conditionals (see Lai, to appear). In all cases, the SC is obligatorily realis, and must precede the FC.

- (15) [Ácari aasis ani-sa-rií-cari iina yahuíni=jina  
 now rain come-NASS-MOM-NASS ART day=LOC  
 [pí<sub>S</sub>=ííquii=na]<sub>RC</sub> quí<sub>A</sub>=[quí-nána]<sub>O</sub> jicati-rií  
 1pl.inc=be.IMPERV=CLF 1sg=1sg-tree.IRR get.out-MOM  
 [aasamu=jina]<sub>PERI</sub>.  
 creek=LOC  
 If the rain falls now in these days that we are in, I will get my timber out of the creek.

- (16) [Quia<sub>A</sub>=cajii-saacari [masiáana]<sub>O</sub>]<sub>SC</sub>,  
 2sg=raise.animal=NASS.IMPERV many  
 na<sub>A</sub>=masicatataa [quia-cajínani]<sub>O</sub>.  
 3pl=break.limb.IMPERV 2sg-domestic.animal  
 If you raise a lot (of chickens), they break the legs of your animals.

Temporally indefinite conditional relationships may also be expressed with a temporal overlap CLC (see §4.2), as in (17).

- (17) [Jííticari pí<sub>A</sub>=nacusii [suhuaa ihuúini  
 when 1pl.inc=know.IMPERV well live.NOMZ  
 pí-níyaaca=jata=na]<sub>COMP:O</sub>]<sub>SC</sub> [caa saáca]<sub>A</sub> cuarínii-yaa quíáaja<sub>O</sub>.  
 1pl.inc-husband=COMIT=CLF nothing lack-IMPERV 2sg  
 When you know how to live well with your husband, you lack nothing.

The Iquito counterfactual (CF) conditional CLC is formed with the SC main verb proclitic *iti=* (*tí=*, when preceded by another clitic). Like the dislocated material that indicates irrealis reality status (see §3.3), the CF clitic occupies the position between A/S and V. Clauses with CF conditional clitics are obligatorily irrealis, so that sometimes both the counterfactual clitic and irrealis material appear between S/A and V, with the former preceding the latter (Beier 2005), as in (18).

Iquito exhibits two kinds of counterfactual conditional CLCs. In the first, both FC and SC are marked with the counterfactual clitic and both exhibit irrealis order, as in (18); in this case the SC must precede FC. The FC describes the state of affairs that would obtain were the unrealized counterfactual condition of the SC satisfied.

- (18) [Ca=quia<sub>S</sub>=ti=iníca-riĥ]<sub>SC</sub>, [quia-cúhuaaja]<sub>A</sub>  
 NEG=2sg=CNTF=WAKE-MOM 2sg-heart  
 iti=quia<sub>O</sub>=átuu-quiáana.  
 CNTF=2SG.IRR=tell-PERV.REP  
 Had you not awakened, your heart would have warned you.

In the second construction type, only the irrealis-order FC is marked with the CF clitic, while the SC exhibits no conditional marking, and displays realis order. The CF-marked clause indicates an action that would have counterfactually taken place, were it not for the realized action described by the SC, as in (19).

- (19) Nu<sub>A</sub>=ti=nu<sub>O</sub> saji-qui, [nu<sub>A</sub>=arihuata-riĥ [nu-cajiija]<sub>O</sub>]<sub>SC</sub>.  
 3sg=CNTF=3SG.IRR cut-PERV 3sg=forget-MOM 3sg-axe  
 She would have cut it, but she forgot her axe.

Note that the CF clitic also appears in single-clause constructions, where it functions as a frustrative, indicating that the action expressed by the verb was almost, but ultimately failed to be, realized, as in (20).

- (20) [Iipi sihuaaraá]<sub>TOP</sub> na<sub>A</sub>=ti=cu<sub>O</sub>=asa-qui.  
 ART.PL.ANIM demon.PL 3pl=FRUST=1sg.IRR=eat-PERV  
 Those demons almost ate me.

## 5. Consequence

### 5.1. Cause

Iquito exhibits two cause CLCs, which distinguish whether the proposition construed as a cause is presupposed or not. The two constructions are structurally very similar, consisting of a pair of fully inflected clauses, where the CLM is an SC-initial syntactic element.

In the non-presupposed cause CLC, the syntactic element *yamiácuji* (variant: *iyamiácuji*) appears in SC-initial position, as in (21).<sup>3</sup>

- (21) Ca=na<sub>A</sub>=parii-yaáriqui [nu<sub>O</sub>=canasíini]<sub>COMP:O</sub> [yamiácuji  
 NEG=3pl=be.able-REM.PAST.IMPERV 3sg=defeat.NOMZ **because**  
 nu<sub>S</sub>=nacusi-aáriqui umáata]<sub>SC</sub>.  
 3sg=know-REM.PAST.IMPERV a.lot  
 They could not defeat him, because he knew a lot.

<sup>3</sup> *Yamiácuji* is lexicalized from the NP *yami=ácuji*. Indeed, some speakers consider this to be a collocation of two distinct words, although they cannot specify a meaning for *yami*.



The second cause construction employs the CLM *jíita*, and indicates that the proposition construed as a cause is presupposed. This construction is typically employed when the cause has already been explicitly mentioned in previous discourse. In (22), for example, the chief's departure from office, which serves as the cause for the chief's desire to relate his wisdom, had been the topic of a lengthy prior discussion with the linguist.

- (22) [Jíita quí<sub>A</sub>=jicatii      [áapu<sub>O</sub>    cuhuíini=jina=ji=na]<sub>COMP:O</sub>]<sub>SC</sub>,  
 since 1sg=leave.IMPERV    chief    become.NOMZ=POSTP:LOC=ABL=CLF  
 quí<sub>A</sub>=nacarii-yaa    [quia<sub>A</sub>=piyíini<sub>O</sub>    nacusi-qui]<sub>COMP:O</sub>...  
 1sg=want-IMPERV    2sg=everything    know-PERV  
 Since I am leaving the office of chief, I want you to know everything...

This construction is somewhat structurally anomalous, as the SC bears the clause-final clitic =*na*, despite the fact that only SC-initial order is attested.

### 5.2. *Result*

The result CLC consists of a pair of fully inflected clauses, where the CLM is the FC-initial collocation *nihua=ácuji*, as in (23). *Nihua* is an anaphor which takes a proposition, located in a preceding sentence or clause, as its antecedent. *Nihua=ácuji* is thus glossable as 'because of that', but its restriction to clause-initial position suggests that it has been grammaticalized as a connector. The FC obligatorily follows the SC, presumably due to the requirement on the anaphoric element *nihua*.

- (23) [Anuús    iyuúju-qui    cúuta]<sub>SC</sub>,    **nihua=ácuji**  
 3sg.FOC stay-PERV    perhaps,    **PANA=POSTP:REAS**  
 nu<sub>S</sub>=ani-jii                      caá    cúuta.  
 3sg=come-NEG.IMPERV    NEG    perhaps  
 Perhaps she stayed, because of that, perhaps, she isn't coming.

### 5.3. *Purpose*

Iquito exhibits two purposive CLCs with the same basic structure: their SCs possess nominalized main verbs which bear one of two purposive postpositions. The postpositions in question, =*íira* and =*ánuura*, are polyfunctional, and additionally serve as allatives. In its latter role, =*ánuura* requires that the NP to which it cliticizes be a motion verb argument. The purposive constructions retain these selectional restrictions. The construction employing the postposition =*íira*, as in (24), exhibits no semantic restrictions on the FC verb.<sup>4</sup>

<sup>4</sup> Note that as with all clauses with *-ni* nominalized verbs, the A/S of the subordinate clause (the SC in this case) is typically omitted if it is coreferential with the A/S of the main clause. If the two A/S are non-coreferential, the A/S of the subordinate clause is retained.

- (24) [Inísi<sub>O</sub> taníini=**íira**]<sub>SC</sub>, quia<sub>A</sub>=saji-qui  
 hammock weave.NOMZ=**POSTP:PURP** 2sg=cut-PERV  
 canúú<sub>O</sub>.  
*chambira*.palm.fiber  
 In order to weave a hammock, you cut *chambira* palm fiber.

The construction employing =*ánuura*, however, requires that the FC verb be a motion verb, as in (25). Note that in purposive constructions, it is grammatical to replace any occurrence of =*ánuura* with =*íira*.

- (25) Nu<sub>S</sub>=ani-ø-cura [nu<sub>O</sub>=ináani=**ánuura**  
 3sg=come-PERV-REC.PAST 3sg=put.NOMZ=**POSTP:PURP**  
 [nu-íyiqui=**íira**]<sub>PERI</sub>]<sub>SC</sub>.  
 3sg-place=**POSTP:ALL**  
 She came in order to put it in her house.

## 6. Possible consequence

Iquito has no structurally distinct possible consequence CLC. Rather, a negative purposive construction or, as in (26), a cause construction with non-assertive modality is employed. Only undesirable possible consequences are attested.

- (26) Quí<sub>A</sub>=iricatájuu-yaa [quí-iita]<sub>O</sub> [yamiácuji aasi<sub>S</sub>  
 1sg=repair-IMPERV 1sg-house **because** rain  
 ani-sa-rií-cari]<sub>SC</sub>.  
 come-NASS-MOM-NASS  
 I am repairing my house because it may rain.

## 7. Addition

Iquito addition CLCs are quite restricted, a feature shared to some degree by several other languages in this volume (e.g. Manambu, Chapter 5; Ojibwe, Chapter 8; Martuthunira, Chapter 11). Iquito exhibits no event addition CLC and the availability of unordered addition is conditioned by clause polarity and main clause status.

### 7.1. Unordered addition

The unordered addition of two positive polarity clauses with fully inflected verbs is not attested in naturally occurring Iquito discourse.<sup>5</sup> This may be

<sup>5</sup> Such sentences are not difficult to elicit, but their absence in natural discourse leads me to conclude that they are calques from Spanish. In elicited examples, the syntactic element *najáaja* ‘also’ appears in the final position of the second clause.

attributable to the fact that apposition of clauses with fully inflected verbs yields a temporal succession interpretation (see §4.1). However, the unordered addition of subordinate positive polarity clauses with nominalized verbs, where main clauses have been elided, as in (27), is relatively common.

- (27) Pí<sub>A</sub>=na<sub>O</sub>=pájuu-ø                    [nasi<sub>O</sub> míini]<sub>COMP</sub> [cuuhuaá<sub>O</sub>  
 1pl.inc=3pl.IRR=teach-PERV    garden make.NOMZ game.animal  
 paníini                    [naqui=jina]<sub>PERI</sub><sub>COMP</sub>, [pápaaja<sub>O</sub>  
 look.for.NOMZ    forest=POSTP:LOC            fish  
 paníini                    [aaca=jina]<sub>PERI</sub><sub>COMP</sub>.  
 look.for.NOMZ    water=POSTP:LOC  
 We will teach them to make gardens, to look for game animals in the  
 forest, and to look for fish in the waters.

Iquito does, however, exhibit a construction that permits the unordered addition of *negative polarity* main clauses. The construction in question involves the use of the syntactic element *nacaá* ‘and not, also not’ (cf. *najáaja* ‘also’, *caá* NEG), which appears in the standard negation position, as in (28). *Nacaá* is only attested in the second clause in such constructions. The use of this construction requires a previous negative polarity sentence with a similar meaning to that of the *nacaá*-bearing clause. In the case of (28), for example, a previous sentence expressed the failure of a fishing trip.

- (28) Quí<sub>S</sub>=íicua-ø-cura                    tíira    [naqui=cúura]<sub>PERI</sub>, cuuhuaá<sub>O</sub>  
 1sg=go-PERV-REC.PAST    there    forest=ALL                    game.animal  
 paníini=ánuura,    jaa    **nacaá**    quí<sub>S</sub>=níqui-ø-curaa    saacáaya<sub>O</sub>.  
 look.for.NOMZ=ALL    already    **also.not**    1sg=see-PERV-REC.PAST    things  
 I went to the forest to look for game animals, and I also didn’t find anything.

## 7.2. *Elaboration*

Elaboration can be expressed in Iquito by apposition of clauses with fully inflected verbs, as in (29). Recall, however, that apposition is also employed to express temporal succession. The two potential CL meanings appear to be distinguished only by the appropriateness, or not, of temporal succession interpretations in any given case.

- (29) [Suhúaata cana<sub>S</sub>=ííqui-aáriqui]<sub>SC</sub>,                    quí<sub>A</sub>=mii-yaáriqui  
 well                    1pl.excl=live-REM.PAST.IMPERV    1sg=have-REM.PAST.IMPERV  
 [piyíini    saacáaya]<sub>O</sub>.  
 all                    things  
 We lived well, I had everything.

## 8. Contrast

Iquito exhibits three contrast CLCs: a polar contrast CLC and two counter-expectational CLCs.

Polar contrast between two clauses is indicated by the second position<sup>6</sup> FC clausal clitic =*qui*<sub>ja</sub> (Harnisch 2005). The construction exhibits rigid SC FC order, as in (30).

- (30) [Ca=quí<sub>A</sub>=nacusii      [cániica<sub>CS</sub>    taa    quiáaja<sub>CC</sub>]<sub>COMP:O</sub>]<sub>SC</sub>  
 NEG=1sg=know.IMPERV    who            COP    2sg  
 quia<sub>A</sub>=anaji-tí-ø=**qui**<sub>ja</sub>            quíija<sub>O</sub>...  
 2sg=heal-CAUS-PERV=**CONTR**    1sg  
 I do not know who you are, but you cured me...

This construction requires that the contrast being drawn be between concepts that can be construed as opposites, as between, for example, affirmative and negative versions of a proposition or between opposite directions, as in (31). Note that contrast between concepts that are merely different, and are not construable as opposites, cannot be expressed with this construction. The polar opposition may rest on an inference, as in (30), where the recipient displayed behavior the opposite of what is expected of a stranger.

- (31) Juaás    miyíqui-qui    iicúraata, [Jusí<sub>S</sub>=qui<sub>ja</sub> iícua-qui    namíraata]<sub>SC</sub>.  
 Juan    return-PERV upriver    José=CONTR go-PERV    downriver  
 Juan returned upriver, but José went downriver.

Iquito exhibits two counter-expectation constructions, a general one which does not distinguish the polarity of the unexpected event, and a second one that requires a negative polarity unexpected event.

In the general construction, the counter-expectation<sup>7</sup> CLM *ájapaa* appears SC-initially, and indicates that the *expected* outcome of the events described by the SC did not obtain, and instead, the *unexpected* events described by the FC obtained (Harnisch 2005).

- (32) [Ajá<sub>paa</sub>    cu<sub>S</sub>=amíyaaqui-cura,            quí<sub>S</sub>=iícua-ø-cura,  
**CONTR**EXP    1sg=walk.in.forest-REC.PAST    1sg=go-PERV-REC.PAST  
 [siyúuni=ánuura]<sub>SC</sub>]<sub>SC</sub>,    iinahuaja    quí<sub>S</sub>=casiíta-ø-cura=na  
 fish.NOMZ=POSTP:PURP    not.at.all    1sg=grasp-PERV-REC.PAST=REP  
 pápaaja<sub>O</sub>.  
 fish

Although I went into the forest, and went to fish, I didn't get any fish at all.

<sup>6</sup> The clitic attaches to the first phonological, rather than grammatical, word of the clause.

<sup>7</sup> Morphemes with similar meanings are sometimes called *frustratives*. In this volume, the term 'frustrative' is reserved for morphemes that express failure to realize an action (see Chapter 7).

In the negative polarity construction, the polyfunctional syntactic element *ájapaqui*, which also functions as a negative existential verb, marks a negative polarity FC expressing a proposition that is surprising in view of the state of affairs indicated by the SC. The verbs of *ájapaqui*-bearing clauses are necessarily nominalized, both in this construction and in the more common existential construction. The SC necessarily precedes the FC.

- (33) [Jaa        nunamija<sub>S</sub>    íiqui-rií    tíí        jaa]<sub>SC</sub>, **ájapaqui**    niyaaca<sub>S</sub>  
 already    sun            be-MOM    here    already    NEG.EXIST    her.husband  
 saníini.  
 arise.NOMZ  
 The sun was already there [gesture], but her husband had not risen at all.

## 9. Alternatives

Iquito exhibits both a clausal disjunction and an alternative rejection construction, but no structurally distinct alternative suggestion construction.

Clausal disjunction is expressed via the syntactic element *cuúquisacari*, which is interposed between the two clauses, as in (34). An interesting restriction in Iquito disjunction linkages is that the subjects of the two clauses must be coreferential.

- (34) Juaa<sub>S</sub>    tinií                      cúuta    [nu-iita]<sub>O</sub>, **cuúquisacari**  
 Juan    thatch.IMPERV    perhaps    3sg-house    or  
 nu<sub>A</sub>=mii-yaa            [nu-huaatiruú]<sub>O</sub>.  
 3sg=make-IMPERV    3sg-boat  
 Juan may be thatching his house, or building his boat.

In terms of textual frequency, disjunction is most typically associated with elision of arguments, or of the entire VP, as in (35).

- (35) Cáami    quí<sub>A</sub>=sanitaa    [cajíini]<sub>COMP:O</sub>  
 upriver    1sg=try.IMPERV    raise.animal.NOMZ  
 quí<sub>A</sub>=parii-saacari    [cajíini]<sub>COMP:O</sub>  
 1sg=be.able-NASS.IMPERV    raise.animal.NOMZ  
 caa    **cuúquisacari**    caa.  
 NEG    OR                      NEG  
 Upriver I will try raising animals, (to see) if I can raise animals or not.

Note that *cuúquisacari* may also be employed in single-clause constructions, where it indicates uncertainty or doubt, as in (36).

- (36) Cuúquisacari nu<sub>S</sub>=íicua-qui.  
 perhaps 3sg=go-PERV  
 Perhaps he went.

Disjunction in Iquito is employed in situations in which the speaker has limited information but hazards a prediction regarding two (or more) options that may obtain, out of a possibly large set of possible states of affairs. Note that *cuúta* ‘perhaps’ commonly appears in such constructions, as it does in (34). Iquito disjunction is thus less like logical disjunction, and more a means of listing epistemically weak options, and hence, a form of open disjunction. *Cuúquisacari* is clearly lexicalized from the non-assertive inflected verb *cuúqui-sa-ø-cari* (be-NASS-PERV-NASS) ‘may be’.

The Iquito rejection CLC is indicated by the collocation *caa huua* in SC-initial position, as in (37). The SC exhibits irrealis order and is freely ordered with respect to the FC.

- (37) [Caa huua nu<sub>A</sub>=[nu-huaatiruú]<sub>O</sub> mii-ø]<sub>SC</sub>, nu<sub>A</sub>=tinii  
 NEG REJECT 3sg=3sg-boat make-PERV 3sg=thatch.IMPERV  
 [nu-iita]<sub>O</sub>.  
 3sg-house  
 Instead of him building his boat, he is thatching his house.

The first element in the collocation is clearly the clausal negation *caa*; the origin of the element *huua* is unclear.

## 10. Manner

Iquito exhibits distinct real and hypothetical manner CLCs, and a third type, an instrumental manner construction.

Real manner CLCs are distinguished by the SC-initial syntactic element *jíita* ‘like’, as in (38). The FC must precede the SC.

- (38) Ácari quí<sub>S</sub>=ruútii [nu=íicu]<sub>PERI</sub> [jíita miyáara<sub>A</sub>  
 now 1sg=bark.IMPERV 3sg=POSTP:AT like dog  
 ámuu-yaa nuú<sub>O</sub>]<sub>SC</sub>.  
 kill-IMPERV 3sg  
 Now I am going to bark at it (a tapir) like a dog hunting it.

The sole difference between the real and hypothetical manner CLCs is that the latter adds the syntactical element *naji* ‘thus’ before *jíita* ‘like’ in SC-initial position, as in (39).

- (39) [Quia=itípuma]<sub>S</sub>    cuúqui-rií    ácura-ma,    [naji    jiíta  
 2sg=mouth    become-MOM    red-DIR:INTRR    thus    like  
 pí<sub>A</sub>=raatii    májaaca<sub>O</sub>]<sub>SC</sub>.  
 1pl.inc=drink.IMPERV    blood  
 Your mouth becomes red on the inside, as if we were drinking blood.

Iquito exhibits two instrumental manner CLCs. These constructions express a relationship between two actions, in which one action plays a role in facilitating or enabling the other. The first of these constructions is characterized by an SC in which the nominalized verb bears the postposition =*jata*, as in (40). In this example, the SC expresses a secondary action, flying, which can be construed as both the manner of departure, and the action which enables departure.

- (40) Quí<sub>S</sub>=jimati-rií    [íini=*jata*]<sub>SC</sub>.  
 1sg=leave-MOM    fly.NOMZ=POSTP:COM  
 I will leave flying.

Discussions with speakers indicate that the activities described by the two clauses in this construction must be simultaneously ongoing, beginning, and ending at the same time, and thus forming part of a single unified activity.

When cliticized to a peripheral NP, the postposition =*jata* expresses both instrumental and comitative roles. The comitative sense also extends to the manner construction in some cases, where the construction yields meanings reminiscent of event addition, as in (41).

- (41) Icuani-huiyas    anii    [rurutáani=*jata*]<sub>SC</sub>.  
 man-PL    come.IMPERV    make.noise.NOMZ=POSTP:COM  
 The men come, making a ruckus.

The second instrumental manner CLC is characterized by an SC with a nominalized verb which lacks a postposition (otherwise quite unusual, see §1). The construction also exhibits rigid SC FC order. The SC expresses an enabling action carried out in the realization of the action expressed in the FC, as in (42).

- (42) [Caá    tíira    ihuáani    jaa    tíi    pí=paajii]<sub>SC</sub>...  
 NEG    there    go.NOMZ    already    REL.PRO:LOC    1pl.incl=learn.IMPERV  
 quí<sub>S</sub>=íicuaa    cutataaniácuji    [quí<sub>A</sub>=niquíini=íira  
 1sg.go.IMPERV    before.dawn    1sg=see.NOMZ=POSTP:PURP  
 [quí-tirampa]<sub>O</sub>]<sub>SC</sub>.  
 1sg-fish.trap  
 Without going to where we learn (i.e., the research center)...I go  
 before dawn to see my fish trap.

## 11. Polyfunctionality in Iquito clause linking markers

Iquito CLMs exhibit significant polyfunctionality. This is especially true of CLMs which additionally exhibit a postpositional function, most of which display locative or directional senses when cliticized to peripheral NPs. The element =*üra*, for example, has an allative directional sense, but may also indicate a peripheral beneficiary argument; in CLCs, it serves as both an immediate temporal anteriority (§4.3) and a purposive CLM (§5.3). The motion verb allative =*ánuura* also serves a purposive function (§5.3). Similarly, the element =*ácuji* has a locative sense ‘before’, but also forms part of cause (§5.1) and reason (§5.2) CLMs. Finally, the element =*ícuaji* displays the spatial meaning ‘jutting out of’, as well as functioning as an immediate temporal posteriority CLM (§4.4). One element, =*jata*, has no spatial sense, but serves as a comitative/instrumental postposition, as well as a manner CLM (§10).

The polyfunctional elements *tii*, *atii*, and *atiiji* serve both as spatial adverbs and temporal CLMs. In their role as spatial adverbs, *tii* ‘there’ and *atii* ‘there (focus)’ display locative meanings, while *atiiji* ‘from there’ displays a directional meaning (note that =*ji* is an ablative clitic). In their roles as CLMs *atii* and *atiiji* express temporal succession (§4.1), while *tii* forms part of a temporal posteriority construction (§4.4).

Although many instances of polyfunctionality involve spatial meanings, not all do. The verbal proclitic *iti*=, for example, functions as a frustrative in monoclausal constructions, but as a counterfactual conditional in CLCs (§4.6). Similarly, the element *jíta* functions both as a presupposed cause (§5.1) and manner (§10) CLM. Likewise, *ajápaqui* serves as both a contrast CLM (§8) and a negative existential verb. The element *jíticari* functions both as a temporal CLM (§4) and the temporal content interrogative ‘when’.

Finally, it should be noted that several elements surface in multiple CLM collocations, such as *jíticari* ‘when’ and *iyácari* ‘period of time’, which both appear in different temporal CLMs, as do the allative/purposive elements =*üra* and *ánuura* (§4.3 and §4.4).

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# The Semantics of Clause Linking in Aguaruna<sup>1</sup>

SIMON OVERALL

## 1. General background

Aguaruna is a Jivaroan language spoken in north-west Peru by about 40,000 people living along the Marañón River and its tributaries. Most Aguaruna speakers live in Amazonas region, with smaller populations in neighbouring San Martín, Cajamarca, and Loreto. Native speakers recognize two major varieties of Aguaruna, one spoken on the Marañón River and its tributaries, the other on the Nieva River. Data for the current chapter are drawn from the Marañón variety.

The Jivaroan family is a group of closely related languages or dialects spoken in the eastern foothills of the Andes and the western edge of the Amazon Basin, on either side of the border between Peru and Ecuador. Four tribal and linguistic divisions are generally recognized: Aguaruna and Huambisa in Peru, Shuar in Ecuador, and Achuar-Shiwiari on both sides of the border (Gordon 2005, Wise 1999).

The Jivaroan people traditionally lived in scattered semi-permanent households and were renowned for their highly warlike culture, which involved both intra- and inter-tribal feuding. Currently most Aguaruna people live in villages that have grown around schools, churches, and health clinics in areas of native title. Bilingual schools have been operating since the mid 1950s (founded under the auspices of the Summer Institute of Linguistics), and there is a high degree of literacy in Aguaruna (80 per cent?) and Spanish (65 per cent?) (Wise 1999).

<sup>1</sup> I am grateful to Sasha Aikhenvald, Bob Dixon, and Sheena Van Der Mark for comments on earlier versions of this chapter, and to my Aguaruna teachers and friends for helping me learn their language. Any errors remain entirely my responsibility.

## 2. Grammatical overview

### 2.1. *Typological profile*

2.1.1. *Morphophonology* Aguaruna morphology is almost entirely suffixing: there is just one, unproductive, prefixing process. Although basically agglutinating, there is some fusion in verbal paradigms. Regular vowel elision processes operate on words of more than two syllables, and this can obscure the regularity of much morphology (underlying forms of morphemes are given in all examples). Prior to vowel elision the syllable is maximally CVN, where N is realized as a homorganic nasal obstruent if a voiceless obstruent or affricate follows, otherwise as vowel nasality. Nasality is contrastive and may spread within a phonological word, but minimal pairs are few and native speakers do not always agree on which examples are contrastive.

2.1.2. *Word classes* Major word classes are noun, verb, and adjective. Adjectives are morphologically noun-like, but cannot head NPs.

2.1.3. *Predicate structure* There are four basic verb stems: the imperfective stem, used in present tense verbs, is formed with the suffix *-a* (singular subject) or *-ina* (plural subject). The perfective stem, used in non-present tenses, typically includes one of a set of Aktionsart suffixes, and may involve phonological changes to the root. For simplicity's sake imperfective stems are glossed as 'root.(PL.)IMPERV', and perfective stems, including Aktionsart suffixes, as 'root.PERV'. The potential stem is marked with the suffix *-mai*. Finally, the unmarked root, along with any derivational morphology, forms a stem to which suffixes may be added. Most verbal tense markers and subordinators always select a particular stem, but a few are more flexible, and the choice of stem then contributes to the meaning of the word.

Verbs are marked for person of subject and speech-act participant object. Plural is obligatorily marked for first and second person subjects. Third person subject is unspecified for number, but plural subject in all persons may be explicitly marked either by using the plural imperfective stem marked with *-ina* or with a separate suffix *-aha* in other stems.

2.1.4. *Grammatical relations* Aguaruna has nominative-accusative alignment. Object NPs are marked with the accusative suffix *-na*, with some exceptions that are conditioned by the relative positions of subject and object on the following person hierarchy:

$$1\text{sg} > 2\text{sg} > 1\text{pl}/2\text{pl} > 3$$

First person singular and third person subjects trigger accusative case marking on any object NP, but second person singular, second person plural, and first person plural only trigger marking on higher-ranked object NPs. First and second person plural rank equally, so do not trigger accusative marking when they co-occur as subject and object in any configuration.

Verbs are inherently intransitive, transitive, or ditransitive. Both objects of ditransitive verbs are marked with accusative case (subject to the restrictions just described) and have essentially the same grammatical status,<sup>2</sup> as do objects added by valency-increasing operations. Nominalization and relativization operate on a subject versus non-subject distinction. Oblique cases are locative, instrumental, and comitative.

Possession is both head and dependent marked; the possessor is marked with accusative case on pronouns and genitive on nouns.

**2.1.5. *Clause structure*** A Main clause consists minimally of a verb or a predicate noun or adjective (i.e., one functioning as a copula complement). There is some auxiliatation, whereby a complex predicate may be formed. Equative/attributive clauses optionally mark the predicate noun or adjective with a copula suffix<sup>3</sup> in present tense declarative clauses, and obligatorily in polar interrogative clauses (31). In all other types of equative/attributive clause, including all non-Main clauses, the full copula verb *a* must be used ((42) and (46)).

Unmarked constituent order is verb final, and this is obligatory in all non-main clauses except embedded questions (31). There is frequent ellipsis of arguments that are recoverable from context.

Non-main clause types are subordinate (§2.2), relativized (§2.4), and nominalized. All retain Main clause argument structure, but while subordinate and relative clauses also retain all case marking, overt objects of nominalized verbs are never accusative marked.

## 2.2. *Clause chaining*

A major feature of Aguaruna grammar is the use of subordinate clauses to form clause chains. A subordinate clause cannot stand alone as a well-formed sentence, but must be associated with a controlling Main clause.

Main clause verbs are marked for tense, aspect, and mood/modality; tense and aspect have scope over the whole sentence, but subordinate verbs may

<sup>2</sup> See Overall (2007) for details of the subtle distinction between direct and indirect objects. For the purposes of this chapter, all objects are considered equal and glossed *o*.

<sup>3</sup> The copula suffix could be considered a subtype of verbalizer as it takes regular person and declarative marking in non-third persons. But its non-standard morphology in third person and its TAM limitations are unlike other verbalizers in Aguaruna, which all create full regular verbs.

mark various temporal and aspectual categories relative to their controlling verb. Subordinate clauses lack mood/modality, and may share that of the controlling verb (cf. Genetti 2005). All Main clause verbs and most subordinate verbs are inflected for the person of the subject, although with different sets of markers (see Table 4 below), and subordinate verbs also indicate participant coreference between the two clauses. With person-marking subordinate verbs, this takes the form of canonical switch reference (i.e., same subject/different subject), while non-inflecting subordinate verbs index the role of a common argument in both clauses (§2.2.3). Table 1 summarizes the categories marked on verbs heading Main and subordinate clauses.

2.2.1. *Subordinate verb markers* Three types of subordinate verbs can appear in both same-subject and different-subject subordinate clauses—these are the three basic and most common types. They are formed on the unmarked, imperfective, and perfective stems, and mark NON-TEMPORAL, SIMULTANEOUS, and SEQUENTIAL (i.e., prior action) subordinate clauses respectively, as shown in Table 2.

In same-subject clauses the three basic subordinate types are characterized by the suffixes *-sa* (non-temporal subordinate), *-ku* (simultaneous), and *-Ø* (sequential) followed by the person suffixes listed in Table 4. Only *-ku* is

TABLE 1. Categories marked on verbs in main and subordinate clauses

|                         | MAIN CLAUSE | SUBORDINATE CLAUSE |                |
|-------------------------|-------------|--------------------|----------------|
|                         |             | PERSON MARKING     | NON-INFLECTING |
| MODALITY                | ✓           | —                  | —              |
| TENSE                   | Absolute    | Relative           | Relative       |
| ASPECT                  | ✓           | Some               | Some           |
| PERSON                  | ✓           | ✓                  | —              |
| PARTICIPANT COREFERENCE | —           | ✓                  | ✓              |

TABLE 2. SS/DS subordinate verb markers

| CLAUSE TYPE  | STEM         | SUFFIX               |               |               |
|--------------|--------------|----------------------|---------------|---------------|
|              |              | SS                   | 2 DS          | 1/3 DS        |
| NON-TEMPORAL | unmarked     | <i>-sa</i> + subject | —             | <i>-taĩ</i>   |
| SIMULTANEOUS | imperfective | <i>-ku</i> + subject | <i>-kumin</i> | <i>-kuĩ</i>   |
| SEQUENTIAL   | perfective   | <i>-Ø</i> + subject  | <i>-min</i>   | <i>-mataĩ</i> |

clearly continued into the different-subject paradigm. A suffix of the form *-ĩ* (surfacing as *-n(ĩ)* following /i/ or /i/) marks different subject, and although not entirely segmentable, all different-subject subordinate verbs are characterized by final /ĩ/ or /n/. For the present purposes I simply treat the whole different-subject paradigm as unsegmentable. First and third person subjects are not formally differentiated in different-subject clauses.

The imperfective stem can appear in different-subject subordinate clauses without the suffix *-ku*, but including the ‘different subject’ marker *-ĩ*. The *-ku* forms emphasize simultaneity, while the IMPERV + DS forms have a locational sense, that is, the action of the controlling clause has the same location but different subject (14).

Four further subordinate marking suffixes appear only in same-subject clauses and express a range of aspectual distinctions. They vary in the stem selected, as shown in Table 3.

These suffixes are followed by the same-subject subordinate clause subject markers listed in Table 4 below, except that ‘intentional’ with third person subject takes the form *-tatus*. Their uses are discussed, with examples, in the relevant sections below.

2.2.2. *Person and switch-reference marking* Main clause verbs show slight differences in person marking between non-past and past tenses, as illustrated in Table 4. In particular, third person subjects are marked with portmanteau suffixes fusing tense and person in all past tenses. Main and subordinate verbs take different sets of markers for first and third person subjects.

2.2.3. *Non-inflecting subordinate clause markers* The two suffixes *-ma* and *-tatamana* mark subordinate forms of verbs, but are unlike the markers described above in two respects:

1. They take neither person nor different-subject marking.

TABLE 3. Exclusively SS subordinate verb markers

| FORM                  | STEM         | GLOSS       |
|-----------------------|--------------|-------------|
| <i>-tasa / -tatus</i> | perfective   | intentional |
| <i>-kawa</i>          | imperfective | repetitive  |
| <i>-kama</i>          | unmarked     | terminative |
| <i>-takama</i>        | perfective   | frustrative |

TABLE 4. Verbal subject markers in main and same-subject subordinate clauses

|   | MAIN   |                              | SUBORDINATE (SS)        |   |
|---|--|------------------------------|-------------------------|---|
|   | SG   | PL                           | SG                      | PL  |
| 1 | <i>-ha</i>   | <i>-hi</i>                   | <i>-nu</i>              | suppression of apocope / <i>-i</i> <sup>a</sup> |
| 2 | <i>-(u)mɪ</i> <sup>b</sup>   | <i>-(u)humɪ</i> <sup>b</sup> | <i>-mi</i>              |   |
| 3 | <i>-wa</i> in non-past tenses /<br>portmanteau person + past tense markers |                              | nasality of final vowel |   |

<sup>a</sup>First plural is marked with *-i* only in SS conditional clauses.

<sup>b</sup>Second person markers appear with initial /u/ in past tenses.

2. Their restrictions on participant coreferentiality are more complex, indexing the role of a common argument in both the subordinate and the controlling clause as shown in Table 5.

*-ma* may be suffixed to the imperfective or the perfective stem, while *-tatamana* selects the unmarked stem; see Table 5.

*-ma* typically encodes a temporal relation between clauses, but when suffixed to the perfective stem the temporal/consequence distinction is neutralized. A non-subject participant in the subordinate clause (O if the verb is transitive and typically location if intransitive) is coreferential with the subject of the controlling clause—see (8) and (16). This subordinator is glossed ‘NON. A/S>A/S’, indicating the common argument’s role in the subordinate clause > role in the controlling clause.

*-tatamana* indicates an action simultaneous with that of the controlling verb. The subject of the verb subordinated with *-tatamana* is an object of the controlling verb—see (17). This is glossed as ‘A/S>O’.

The unmarked position for person marking subordinate clauses is preceding the controlling clause, and for non-inflecting subordinate clauses this is the only position possible.

TABLE 5. Non-inflecting subordinate verb markers

| SUFFIX           | STEM                       | ROLE OF COMMON ARGUMENT |                       |
|------------------|----------------------------|-------------------------|-----------------------|
|                  |                            | IN SUBORDINATE CLAUSE   | IN CONTROLLING CLAUSE |
| <i>-ma</i>       | perfective or imperfective | NON A/S                 | A/S                   |
| <i>-tatamana</i> | unmarked                   | A/S                     | O                     |

The bridging verb is syntactically a separate clause, subordinate to and intonationally part of the focal clause. It may take the formal trappings of a supporting clause (see (46) below, which shows a bridging verb marked with



the concessive suffix). Semantically, however, the supporting clause is the preceding Main clause.

Bridging verbs occasionally appear following subordinate clauses. Example (20) shows a same-subject frustrative clause that is formally subordinate to the following bridging verb. Use of the different-subject marked bridging verb allows the different-subject marking to be associated with the frustrative clause, which cannot take such marking directly, as it appears only in same-subject clauses.

2.3.2. *Bridging pronouns* Bridging anaphoric *nu* typically appears directly following a subordinate supporting clause, and serves to highlight its relation with the focal clause. Bridging *nu* takes locative (*nu-ĩ*) or instrumental case (*nu-i*), marking a temporal or consequence relation respectively. This is the only marking strategy that explicitly differentiates these two semantic types when the action of the supporting clause precedes that of the focal clause (compare (11) and (28) below). Bridging *nu* may occasionally also function as a connector between two Main clauses.

#### 2.4. Relativization

There are two relativizing suffixes, and both can appear with either imperative or perfective stems, as shown in Table 6.

*-mau* relativizes the O argument of a transitive verb and typically the location of an intransitive verb (cf. the non-inflecting subordinate clause marker *-ma* described in §2.2.3 above); *-u* relativizes the subject. Relative clauses, like adjectives, typically follow their head as in the following example. Headless relatives are common.

- (2) [yumi [aimha-**mau**-na-ka]] amua-ia  
 [water [pour.PERV-NON.A /S.REL-ACC-FOC]]<sub>NP</sub> finish-REM.PAST  
 tuwahamĩ  
 NARR  
 (He) finished the water that had been poured in (to the gourd)

In addition to their use in relative clauses, verbs marked with the subject relativizer *-u* may also function as heads of Main clauses, with or without the

TABLE 6. Relativizing suffixes

| SUFFIX      | ROLE OF COMMON ARGUMENT<br>IN RELATIVE CLAUSE |
|-------------|---|
| <i>-u</i>   | A/S   |
| <i>-mau</i> | NON A/S                                       |

copula suffix (see (6), (8)). This use of relativized clauses is common in narrative, apparently with a connotation of ‘non-first-hand’ evidentiality.

There is some overlap between *-u* relativized clauses and clause chaining (see (18) below, and cf. Hale 1976). An advantage of clause chaining with relativized clauses is that grammatical relations in both clauses are indexed on the verb: the choice of relativizing suffix indicates whether the common argument is subject or non-subject of the relative clause, and the NP containing the relative clause is then case marked to indicate its role in the matrix clause. As with the non-inflecting subordinators described above, the information about interclausal relations conveyed goes beyond the simple same/different-subject distinction of canonical switch reference.

### 2.5. *Speech reports*

A speech report accompanied by a subordinate form of the verb *tu* ‘say’ is a widely used grammatical and stylistic device (cf. Larson 1978), and is obligatory in different-subject purpose clauses and complementation strategies. The speech report itself is a more or less verbatim quote (there is no indirect speech) and appears directly preposed to the verb *tu* ‘say’.<sup>4</sup>

Example (3) shows a different-subject purpose clause couched as a speech report (all speech reports are underlined in the examples):

- (3) nuwa-na [yumi ʃikika-ta tu-sā]  
 woman-ACC [water draw.PERV-IMP say-SBD.3.SS]  
 awima-ma  
 send.PERV-NON.A/S>A/S  
 When (they) sent a woman to draw water... (lit.,... saying ‘draw some water’)

Speech reports also function in lieu of different-subject complement clauses, as in the following example:

- (4) [nĩ yuwa-ti tu-sa-nu] wakiqa-ha-i  
 [3sg eat.PERV-JUS say-SBD-1sg.ss] want.IMPERV-1sg-DEC  
 I want him to eat (lit., I want, saying ‘let him eat’)

Compare a same-subject complementation strategy with ‘intentional’ subordinate marker (in fact, the intentional suffix must have developed from a speech report construction historically):

<sup>4</sup> Only one other verb can take a speech report: *waha* ‘call’ (also ‘stand’), used for onomatopoeic representations of animal calls and shouted speech. Speech reports with *waha* ‘call’ do not take part in any of the extended functions of speech reports described in this chapter.

- |     |  |                                     |
|-----|--|-------------------------------------|
| (5) | [yuwa-tasa-nu]<br>[eat.PERV-INT-1sg.ss]<br>I want to eat | waktuqa-ha-i<br>want.IMPERV-1sg-DEC |
|-----|--|-------------------------------------|

Speech reports may mark temporal and consequence linkages ((21), (30), (35–6)).

A speech report often accompanies another speech verb such as *aima* ‘reply’, *tʃitʃa* ‘converse’, where a non-temporal subordinate form of the verb *tu* ‘say’ functions as a speech report marker. In such constructions the subordinate form *tu-sā* (say-SBD.3.ss) is typically phonologically reduced to *tus*. This suggests a possible future grammaticalization into a speech report marker/complementizer (cf. Corbera 1994: 335 ff.); however it would be incorrect to consider *tus* to be a grammatical morpheme synchronically, as (a) it never appears with any subject other than third person, so must be analyzed as morphologically complex; and (b) it does not *require* a second speech verb, so still retains its full semantic content.

### 3. Expression of semantic types of clause linking

We have seen above the four major clause linking constructions in Aguaruna:

1. Clause chaining with one or more subordinate clause(s) controlled by a Main clause (§2.2)
2. Bridging constructions (§2.3)
3. Relative clause construction (§2.4)
4. Speech reports (§2.5)

To these four may be added:

5. Conjunction/disjunction
6. Apposition

Although there is not a clear mapping between clause linking constructions and semantic types, a few grammatical constructions show a one-to-one relationship to a semantic type: conditional (Ic), purpose (Iip), possible consequence (III), and concessive (IVc) relations are all marked distinctly. Other types, particularly temporal (Is and Ir) and consequence (IIc and IIr), are grammatically indistinct. Marking of manner relations is rare, and there is no hypothetical manner (VIh) marking; nor is there any clause linking construction that expresses suggestion (Vs).

In the sections that follow I illustrate the marking possibilities for each semantic type. Table 7 gives an overview of associations between the semantic types and the six linking constructions. Note that where Table 7 indicates that

TABLE 7. Semantic types and associated clause linking constructions

| SEMANTIC TYPE |   | EXAMPLE    | SUPPORTING CLAUSE TYPE                          | FOCAL CLAUSE TYPE                                      | [SC][FC]<br>REQD? | LINKING<br>TYPE (§3) |
|---------------|---|------------|---|--|-------------------|----------------------|
| Is/Ir         | Temporal succession/<br>Relative time: Prior action | (6), (7)   | temporal clause (§2.2)                          | Main clause  |                   | 1                    |
|               |   | (1)        | Main clause                                     | bridging verb (§2.3) + Main clause                     | ✓                 | 2                    |
|               |   | (8)        | - <i>ma</i> clause (NON A/s > A/s) (§2.2)       | Main clause  | ✓                 | 1                    |
|               |   | (10)       | terminative clause (ss) (§2.2)                  | Main clause  |                   | 1                    |
|               |   | (11)       | temporal clause (ss) (§2.2)                     | bridging pronoun (§2.3) +<br>locative case + Main verb | ✓                 | 1/2                  |
|               | ‘since’   | (9)        | temporal clause (§2.2)                          | <i>naṅkama</i> ‘begin’ + Main clause                   |                   | 1                    |
|               | Simultaneous action                                 | (12), (13) | temporal clause (§2.2)                          | Main clause  |                   | 1                    |
|               |   | (14)       | imperfective clause (ds) (§2.2)                 | Main clause  |                   | 1                    |
|               |   | (15)       | repetitive clause (ss) (§2.2)                   | Main clause  |                   | 1                    |
|               |   | (16)       | relative clause (§2.4)                          | Main clause  |                   | 3                    |
|               |   | (17)       | - <i>ma</i> clause (NON A/s > A/s) (§2.2)       | Main clause  | ✓                 | 1                    |
|               |   | (18)       | - <i>tatamana</i> clause (A/s > o) (§2.2)       | Main clause  | ✓                 | 1                    |
|               | Future action: ‘until’                              | (21)       | speech report (ds) (§2.5)                       | Main clause + future tense                             |                   | 4                    |
|               | ‘before’ (‘while not yet’)                          | (19)       | imperfective clause (ds) + nega-<br>tive (§2.2) | Main clause  |                   | 1                    |
|               | ‘before’  | (20)       | frustrative clause (ss) (§2.2)                  | Main clause  |                   | 1                    |

(Continued)

TABLE 7. (Continued)

| SEMANTIC TYPE |                            | EXAMPLE    | SUPPORTING CLAUSE TYPE                           | FOCAL CLAUSE TYPE   | [SC][FC]<br>REQD? | LINKING<br>TYPE (§3) |
|---------------|----------------------------|------------|--|---|-------------------|----------------------|
| Ic            | Conditional                | (22)–(24)  | temporal clause + conditional (§2.2)             | Main clause + potential stem, future tense or imperative mood |                   | 1                    |
| IIc/ IIr      | Cause/Result: Prior action | (25)       | temporal clause (§2.2)                           | Main clause   |                   | 1                    |
|               |                            | (26)       | Main clause                                      | bridging verb (§2.3) + Main clause                            | ✓                 | 2                    |
|               |                            | (27)       | - <i>ma</i> clause (§2.2)                        | Main clause   | ✓                 | 1                    |
|               |                            | (28)       | temporal clause (§2.2)                           | bridging pronoun (§2.3) + instrumental case + Main clause     | ✓                 | 1/2                  |
|               | Non-prior action           | (29)       | non-temporal clause (§2.2)                       | Main clause   |                   | 1                    |
|               |                            | (30)       | speech report (DS?)                              | Main clause   |                   | 4                    |
|               |                            | (31)       | <i>wagki</i> ‘why’ + rhetorical question         | Main clause   |                   | 6                    |
| IIp           | Purpose                    | (33)       | Main clause                                      | intentional clause (ss) (§2.2)                                |                   | 1                    |
|               |                            | (32)       | Main clause                                      | speech report (DS preferred) (§2.5)                           |                   | 4                    |
|               |                            | (34)       | Main clause                                      | simultaneous clause (ss) (§2.2)                               |                   | 1                    |
| III           | Possible consequence       | (35), (36) | Main clause                                      | speech report (§2.5) + apprehensive                           |                   | 4                    |
| IVu           | Unordered addition         | (37)       | apposition of Main clauses; no SC/FC distinction |   |                   | 6                    |

|     |                     |            |  |   |   |   |
|-----|---------------------|------------|--|---|---|---|
| IVs | Same-event addition | (40)       | non-temporal clause (§2.2)   | Main clause   |   | 1 |
|     |                     | (41)       | temporal clause (§2.2)   | Main clause   |   | 1 |
| IVe | Elaboration         | (38), (39) | Main clause  | Main clause   | ✓ | 6 |
| IVc | Contrast            | (42)       | Main clause  | <i>tuhā</i> ‘but’ + Main clause                             | ✓ | 5 |
|     |                     | (44), (45) | subordinate clause + concessive (§2.2)                                   | Main clause   | ✓ | 1 |
|     |                     | (46)       | Main clause  | bridging verb (§2.3) + concessive + Main clause             | ✓ | 2 |
| Vd  | Disjunction         | (47)       | interrogative clauses linked with <i>atsa</i> ‘or’; no SC/FC distinction |   |   | 5 |
|     |                     |            | Main clause  | bridging verb (§2.3) + negative + conditional + Main clause | ✓ | 2 |
| Vr  | Rejection           | (48)       | Main clause  | <i>tuhā</i> ‘but’ + Main clause                             | ✓ | 5 |
| VIr | Real manner         | (49)       | Main clause + normative  | Main clause   |   | 6 |



- (7) [yawaā ikina-maī ] [maa-ha-i ]  
 [dog flush.out.PERV-SEQ.1 / 3.DS]<sub>SC</sub> [kill.PERV-1SG-DEC]<sub>FC</sub>  
 When the dog flushed (the agouti) out, I killed it
- (8) [ipini-ma] [nī ikamyawā tru tru tru]  
 [trap.PERV-NON.A/S>A/S]<sub>SC</sub> [3sg jaguar roar roar roar]  
 waha-u ]  
 call.IMPERV-REL]<sub>FC</sub>  
 When (they) trapped (it), the jaguar went ‘roar roar roar!’

Where the focal clause represents a stretch of time rather than a point in time (i.e. ‘since’), this can be expressed with a non-temporal form of the verb *naŋkama* ‘begin’ subordinate to the focal clause:

- (9) [mina apa-hu haka-mataī]  
 [my father-PERT.1SG die.PERV-SEQ.1/3.DS]<sub>SC</sub>  
 [[naŋkama-sa-nu] bitaika huwaka-u-aita-ha-i]  
 [[begin-SBD-1SG.SS] orphan stay.PERV-REL-COP-1SG-DEC]<sub>FC</sub>  
 Since my father died, I remain an orphan (lit., My father having died, beginning then I stay an orphan)

The terminative subordinate clause marker *-kama* indicates that the end point of an ongoing action (SC) coincides with the start of a new action (FC):

- (10) [[tʃapayā ] dii-kamā]  
 [[ look.over.edge.PERV.SEQ.3.SS ] look-TERM.3.SS]<sub>SC</sub>  
 [aĩntsu ... wainakā]  
 [person.ACC ... see.PERV.SEQ.3.SS]<sub>FC</sub>  
 Having looked over the edge, on looking they saw a person...

To explicitly indicate a temporal rather than cause/result relation between a sequential supporting clause and its focal clause, the bridging pronoun *nu* marked with locative case is used (cf §2.3.2, example (28)):

- (11) [apiha-numa hīuā-ta] [nu-ī]  
 [thicket-LOC arrive-APPLIC.PERV.SEQ.1pl.SS]<sub>SC</sub> [ANAPH-LOC]<sub>BRIDGE</sub>  
 [[waitusa ] hīinaki]  
 [[suffer.SBD.1pl.SS] exit.PERV.SEQ.1pl.SS]<sub>FC</sub>  
 After having come to a thicket, then having got out of it with difficulty  
 (we keep looking for game)

- (b) Simultaneous action A simultaneous subordinate clause (same or different subject) typically encodes simultaneous action.



- (12) [antuina-ku ] [wĩ-aha-mi]  
 [hear.PL.IMPERV-SIM.1pl.ss]<sub>SC</sub> [go.PERV-PL-HORT]<sub>FC</sub>  
 When we hear, let's go
- (13) [nu-na muunta auhumatuina-kuĩ]  
 [ANAPH-ACC elder tell.PL.IMPERV-SIM.1/3.DS]<sub>SC</sub>  
 [wainakasā ta-wa tu-ia-ha-i]  
 [in.vain.3 say.IMPERV-3.EXCL say-REM.PAST-1sg-DEC]<sub>FC</sub>  
 When the elders told that (story), I said 'they're talking rubbish!'

The imperfective + DS subordinate forms, as in the following example, have a locative nuance, suggesting that the different subject suffix *-ĩ / -n(ĩ)* may have developed from the homophonous locative suffix.

- (14) [kabisa-na apihiḱā itipahuā  
 [kilt-ACC fold.PERV.SEQ.3.ss put.ON.PERV.SEQ.3.ss  
 wahaĩ] [ikamyawā tsĩḱin wahauka-u]  
 stand.IMPERV.1/3.DS]<sub>SC</sub> [jaguar suddenly stop.PERV-REL]<sub>FC</sub>  
 Having folded his kilt and put it on, he was standing there when the jaguar suddenly arrived (there)

The repetitive subordinate clause marker *-kawa* (same subject only), accompanied by partial reduplication in the verb root, is formed on the imperfective stem and encodes simultaneity:

- (15) [buu buuta-kawā] [wĩ-u]  
 [REDUP cry.IMPERV-REPET.3.ss]<sub>SC</sub> [go.PERV-REL]<sub>FC</sub>  
 Crying and crying he went

Both types of non-inflecting subordinate clause may be used to form subordinate clauses that encode simultaneous action: *-ma* (NON.A/S>A/S) with imperfective stem (16) and *-tatamana* (A/S>O) with unmarked stem (17).

- (16) [ta-ma] [nu utʃi tʃitʃa-kũ]  
 [say.IMPERV-NON.A/S>A/S]<sub>SC</sub> [ANAPH youth speak.IMPERV-SIM.3.ss]<sub>FC</sub>  
 As they said that to him<sub>i</sub>, that youth<sub>i</sub> was saying...
- (17) [utʃi [akaikĩ] [yumiŋmata hĩuqa-tatus]  
 [youth [go.down.PERV.SEQ.3.ss] [well arrive.PERV-INT.3.ss]  
 wĩ-tatamana] [ikamyawā tĩpihuka-u-ai]  
 go-A/S>O]<sub>SC</sub> [jaguar pounce.ON.PERV-REL-COP.3.DEC]<sub>FC</sub>  
 The youth having gone down the hill, while he was going to the well, the jaguar pounced on him

A relative clause with *-u* (subject relativizer) formed on the imperfective stem may function as a temporal clause.

- (18) [yaki wakã iki-ta-u-na]  
 [above go.up.PERV.SEQ.3.SS sit-APPLIC.IMPERV-REL-ACC]<sub>SC</sub>  
 [yunuma-tuka-u-ai]  
 [approach-APPLIC.PERV-REL-COP.3.DEC]<sub>FC</sub>  
 He approached (the boa) that had gone up and was sitting up above  
 OR  
 When (the boa) had gone up and was sitting above, he approached it

(c) Future action ‘Before’ may be encoded with an imperfective + DS clause with negative polarity (19). The sense of ‘before *x*’ arises from a literal meaning ‘while not yet *x*’.

- (19) [taa-u-ai] [kaŋkapi taa-tsĩ-ka]  
 [arrive.PERV-REL-COP.3.DEC]<sub>FC</sub> [Kagkap arrive.IMPERV-NEG.1/3.DS-FOC]<sub>SC</sub>  
 (The jaguar) arrived before Kagkap had arrived

A frustrative subordinate clause marked with *-takama* may also encode ‘before’, as in (20). Frustrative in Aguaruna has the sense of an unfulfilled intention, so it is natural to use it here: the action of the focal clause takes place as the woman is on her way back from the garden, but not back yet. Note that the bridging verb *nunitai* is used to show the switch in subject, as frustrative clauses can only take same-subject marking (see §2.3.1).

- (20) [[aha-numa nuwa wi-u] wau-takamã]  
 [[garden-LOC woman go.PERV-REL] arrive-FRUST.3.SS]<sub>SC</sub>  
 [nuni-tai] [...] ]  
 [do.that-SBD.1/3.DS]<sub>BRIDGE</sub> [...] ]<sub>FC</sub>  
 Before the woman who had gone to the garden arrived, (he butchered and cooked her dog)

A subordinate clause consisting of a speech report construction combines with a future tense controlling clause to encode ‘until’ in (21). There is some overlap here with purpose marking.

- (21) [mina duku-hu tsauaha-ti tu-sa-nu]  
 [1sg.ACC mother-1sg recover.PERV-JUS say-SBD-1sg.SS]<sub>SC</sub>  
 [kuitama-ku-nu puhu-tata-ha-i]  
 [care.for.IMPERV-SIM-1sg.SS live.PERV-FUT-1sg-DEC]<sub>FC</sub>  
 I will stay here looking after my mother until she gets well (lit. saying ‘may my mother recover’)

3.1.2. *Conditional (Ic)* In a conditional linkage, the protasis (supporting clause) is one of the two basic temporal subordinate clause types, namely simultaneous or sequential (Table 2), and the verb takes the conditional suffix *-ka*. The supporting clause may be same subject or different subject. The form of the apodosis (focal clause) is apparently constrained only by pragmatics: all attested examples are future, potential, or imperative forms.

- (22) [wakiwa-ku-mi-ka] [yuwa-ta]  
 [want.IMPERV-SIM-2.SS-COND]<sub>SC</sub> [eat.PERV-IMP]<sub>FC</sub>  
 If you want, eat!
- (23) [kaʃini yuta-tʃa-kuĩ-ka]  
 [tomorrow rain.IMPERV-NEG-SIM.1/3.DS-COND]<sub>SC</sub>  
 [wi-tata-ha-i [mina aha-hu-ĩ-ka  
 [go.PERV-FUT-1SG-DEC [1sg.ACC garden-1SG-LOC-FOC  
 taka-ku-nu]]  
 work.IMPERV-SIM-1sg.SS]]<sub>FC</sub>  
 If it doesn't rain tomorrow, I will go to work in my garden

The SC typically precedes the FC, but this is not always the case:

- (24) [migel maa-mi] [aĩtsu haka-mataĩ-ka]  
 [Miguel kill.PERV-HORT]<sub>FC</sub> [person die.PERV-SEQ.1/3.DS-COND]<sub>SC</sub>  
 Let's kill Miguel if the person (that Miguel beat up) dies

### 3.2. *II Consequence*

Of the consequence linkage types described in Chapter 1, only purpose clauses are distinctly marked. Cause and result clauses share marking strategies, and they are not distinguished from temporal succession (Is)/relative time (Ir) when the action of the supporting clause is prior to that of the focal clause.

#### 3.2.1. *Cause (IIc) and Result (IIr)*

(a) *Prior action* Prior action is encoded with basically the same set of markers as prior temporal, described above. One strategy is to use a sequential subordinate clause (same or different subject):

- (25) [nuwa makitʃiki naŋkai-na usupahã]  
 [woman one fruit-ACC crave.PERV-SEQ.3]<sub>SC</sub>  
 [hiinaki-u tuwahamĩ]  
 [go.out.PERV-REL NARR]<sub>FC</sub>  
 A woman craved fruit, so she went out

Another is to use a bridging verb (note that the first person plural object marked on the verb *mã* 'kill' refers to a generic human object: 'one who kills people'):

- (26) [mina apa-hu m̃a-kahatua-u a-yi]  
 [1sg.ACC father-1sg kill-1pl.O.PERV-REL COP-REM.PAST.3.DEC]<sub>SC</sub>  
 [nunika-mataĩ] [auha-tsu-u-ka  
 [do.PERV-SEQ.1/3.DS]<sub>BRIDGE</sub> [study.IMPERV-NEG-REL-FOC  
 papi-na-ka puhu-ya-ha-i]  
 book-ACC-FOC live-REM.PAST-1sg-DEC]<sub>FC</sub>  
 My father was a murderer, so I did not study (because the family had to go into hiding for fear of retribution)

A non-inflecting *-ma* subordinate clause (NON.A/S>A/s) with perfective stem may also be used:

- (27) [suwima-ma] [buuta-wa]  
 [beat.PERV-NON.A/S>A/s]<sub>SC</sub> [cry.IMPERV-3.EXCL]<sub>FC</sub>  
 He's crying because he was beaten!

To explicitly indicate a cause/result rather than a temporal relation when the supporting clause expresses prior action, a bridging pronoun with instrumental case is used (compare §2.3.2, example (11)):

- (28) [aʃinaka] [nu-i]  
 [finish.PERV-SEQ.1pl.ss]<sub>SC</sub> [ANAPH-INST]<sub>BRIDGE</sub>  
 [bote-numa tʃimpimaha]  
 [boat-LOC sit.PL.PERV-SEQ.1pl.ss]<sub>FC</sub>  
 Because we had finished (the class), we got into the boat (to go home) ...

(b) Non-prior action A non-temporal clause (same or different subject) is typically used in a cause/result linkage where the action of the supporting clause is not prior to that of the focal clause.

- (29) [waamak hiʔa-tata-u a-sa]  
 [quickly arrive.PERV-DESID-REL COP-SBD.1pl.ss]<sub>SC</sub>  
 [[ayu tu-sa] wa-aha-maia-hi]  
 [[ok say-SBD.1pl.ss] go.up.PERV-PL-PAST-1pl.DEC]<sub>FC</sub>  
 (After the driver told us we had to pay him,) because we wanted to get home quickly, we said 'OK' and got onto the truck

A speech report construction may be used to indicate a different-subject cause/result linkage.

- (30) [buuta-wa-i] [simonka wiʔa-wa-i tu-sā]  
 [cry.IMPERV-3-DEC]<sub>FC</sub> [Simon go.IMPERV-3-DEC say-SBD.3.ss]<sub>SC</sub>  
 It's crying because Simon's going (lit. saying 'Simon's going')

The supporting clause may be expressed with an embedded rhetorical question, introduced with the word *waŋki* ‘why’, here better translated as ‘because’. In such a construction the focal clause may optionally be introduced with an instrumental-marked bridging pronoun (cf. example (28)), as in the following example. Note that the rhetorical question ‘are centipedes food we eat?’ has the illocutionary force of a strong assertion that centipedes are *not* food we eat.

- (31) [utʃi nu-na yuwā [waŋki  
[child ANAPH-ACC eat.PERV.SEQ.3.SS [why  
kiiwi-ʃa yu-taĩ-ka-aita  
centipede-UNCERT eat-NON.A/S.NOMZ-INTER-COP  
ii-ʃa]] [nu-i] [haka-u tuwahaĩ  
1pl-UNCERT]]<sub>SC</sub> [ANAPH-INST ]<sub>BRIDGE</sub> [die.PERV-REL NARR]<sub>FC</sub>  
The child having eaten that (centipede), because ‘are centipedes food  
we eat?’—because of that (the child) died

This use of *waŋki* ‘why’ to introduce the supporting clause is probably influenced by the Spanish interrogative *por qué* ‘why’ and conjunction *porque* ‘because’.

3.2.2. *Purpose (IIP)* Two types of clause explicitly indicate purpose: a speech report construction (32) is obligatory for different-subject purpose clauses, and may be used for same-subject, but an intentional clause is preferred for the latter (33). Both types are also used in complementation (cf. (4) above); in fact there is no grammatical distinction between a purpose clause and a complement clause, hence the term ‘complementation strategy’ is appropriate (Dixon 2006). Finally, a same-subject simultaneous temporal clause may also indicate purpose in some contexts (34).

In all three types, the focal clause is subordinate, and there is no strict ordering of supporting and focal clauses, although SC preceding FC is more common, as in examples (32), (33), and (34).

- (32) [iwi-ya-hi] [tipisa-ti tu-sa]  
[raise.hand-REM.PAST-1pl.DEC]<sub>SC</sub> [lie.down.PERV-JUS say-SBD.1pl.ss]<sub>FC</sub>  
We raised our hands so that it (the truck) would stop (lit., saying ‘let it  
lie down’)
- (33) [wikaiũa-kũ wi-u-ai] [kuntinu-na  
[walk.IMPERV-SIM.3.SS go.PERV-REL-COP.3.DEC]<sub>SC</sub> [animal-ACC  
maa-tatus]  
kill.PERV-INT.3.SS]<sub>FC</sub>  
He went walking to kill animals (i.e., he went hunting)

- (34) [hiina-aha-maia-hi] [iina batsama-taĩ-ka  
 [go.out.PERV-PL-PAST-1pl.DEC]<sub>SC</sub> [1pl.ACC live-NON.A/S.NOMZ-FOC  
 minina-ku]  
 arrive.PL.IMPERV-SIM.1pl.ss]<sub>FC</sub>  
 We set off to go back to our homes

### 3.3. III Possible consequence

Possible consequence is marked with the apprehensive suffix *-(a)ĩ*; the consequence alluded to is always an undesirable one. The apprehensive-marked verb is typically embedded in a speech report construction. The supporting clause typically precedes the focal clause, but this ordering can be reversed as in (35).

In the following example from a traditional tale, Ajaim gives his adopted son Etsa a necklace that rattles loudly, so that he will not be able to sneak up on Ajaim and hear him singing.

- (35) [itsã antuka-ĩ tu-sã] [tiŋkapi-na  
 [Etsa hear.PERV-APPR.3 say-SBD.3.ss]<sub>FC</sub> [necklace-ACC  
 naha-tuã di-tua-ia tuwahamĩ]  
 make-APPLIC.PERV.3.ss hang-APPLIC.PERV-REM.PAST.3 NARR]<sub>SC</sub>  
 Lest Etsa should hear (him singing), (Ajaim) made him a necklace and  
 hung it on him (lit., ... saying 'may Etsa not hear')

Note that this construction differs structurally from the different-subject purpose clause (type IIp) in (32) above only in its use of the 'apprehensive' suffix. But unlike purpose, possible consequence is always expressed with a speech report construction, even when the two clauses have the same subject:

- (36) [fiiha yuwa-mĩ ] [haka-iŋ tu-sa-mĩ ]  
 [well eat.IMPERV-2.DEC ]<sub>SC</sub> [die.PERV-APPR.1sg say-SBD-2.ss]<sub>FC</sub>  
 You eat well so that you won't die (lit., ... you saying 'may I not die')

### 3.4. IV Addition

Addition is relatively uncommon, as most types are subsumed under the temporal and consequence semantic types (I and II) and expressed with clause chaining constructions. For same-event addition (IVs), this is the only expression possible, while unordered addition (IVu) and elaboration (IVe) may be expressed with apposition of Main clauses. Contrast (IVc) is the only type of addition to have a dedicated marking strategy.

For elaboration (IVe) and contrast (IVc) types, the supporting clause must precede the focal clause, for same-event addition the supporting clause is subordinate so typically (but not necessarily) precedes the focal clause, and unordered addition does not distinguish supporting and focal clauses.

3.4.1. *Unordered addition (IVu) and elaboration (IVe)* Apposition of Main clauses may encode unordered addition (37) or elaboration (38):

- (37) [piŋkui-na umpua-u] [tampuha-na awata-u]  
 [flute-ACC blow.IMPERV-REL] [drum-ACC hit.IMPERV-REL]  
 [pihuna-na umpua-u]  
 [bone.flute-ACC blow.IMPERV-REL]  
 (One of them was) playing a flute, (another was) playing a drum,  
 (another was) playing a bone flute
- (38) [auha-hama] [dika-hama]  
 [read.IMPERV-3.AFFECT]<sub>SC</sub> [know.IMPERV-3.AFFECT]<sub>FC</sub>  
 He's reading! He knows how!

Note that while unordered addition does not distinguish a supporting and focal clause, elaboration does, and the order is always [SC][FC].

In the following example of elaboration, one of the apposed verbs is *dakitu* 'refuse', which normally takes a nominalized clause as complement, as in (48).

- (39) [wi-ka uma-hu-na-ka awiima-tʃa-tata-ha-i]  
 [1sg-FOC sister-1sg-ACC-FOC send.PERV-NEG-FUT-1sg-DEC]<sub>SC</sub>  
 [dakita-ha-i]  
 [refuse.IMPERV-1sg-DEC]<sub>FC</sub>  
 I will not send my sister away; I refuse (to do it)

3.4.2. *Same-event addition (IVs)* A non-temporal subordinate clause may express same-event addition. Note that in the following example the subordinate clause is a speech report construction, similar to a purpose clause:

- (40) [ayu untsu wi-ki-ʃa uti-ta-ha-i tu-sā]  
 [ok well 1sg-RESTR-ADD bring.PERV-IFUT-1sg-DEC say-SBD.3.SS]<sub>SC</sub>  
 [akaiki-u-ai]  
 [go.down.PERV-REL-COP.3.DEC]<sub>FC</sub>  
 Saying 'OK, well I'll bring it by myself' he went down (to the river)

A simultaneous subordinate clause may also be used, overlapping with temporal linkage. In the following example the link cannot be strictly temporal, because the verb of the first clause refers to playing an instrument by blowing

and the second to singing—it is physically impossible to perform both actions at once.

- (41) [umpua-kũ] [ti-tata-wa-i]  
 [blow.IMPERV-SIM.3.SS] [say.PERV-FUT-3-DEC]  
 He will play and sing

3.4.3. *Contrast (IVc)* Contrast may be expressed with two Main clauses, of which the second (the focal clause) is introduced with *tuhā* ‘but’, which typically also takes the concessive suffix *-fa(kama)* (the long and short forms of the concessive suffix are apparently in free variation).

- (42) [sintfi wakiŋa-ia-ha-i wi-tasa-nu]  
 [strongly want-REM.PAST-1SG-DEC go.PERV-INT-1SG.SS]<sub>SC</sub>  
 [tuhā-fa kakahus wi-mai-inu a-tsu-yi]  
 [but-CONC easily go-POT-A/S.NOMZ COP-NEG-REM.PAST.3.DEC]<sub>FC</sub>  
 I really wanted to go, but it was not easy to go

*tuhā* is not always strictly contrastive, and shows some overlap with cause/result (IIc/r). There may be a counter-expectational sense to the use of *tuhā* ‘but’, as in the following example, from a story about a young man who goes alone to get water, even though he knows there is a man-eating jaguar in the area.

- (43) [yumi atsu-tai]  
 [water exist.NEG-SBD.1/3.DS]<sub>SC</sub>  
 [tuhā-fa [ayu untso wi-ki-fa uti-ta-ha-i]  
 [but-CONC [ok well 1SG-RESTR-ADD bring.PERV-IFUT-1SG-DEC  
 tu-sā] akaiki-u-ai]  
 say-SBD.3.SS] go.down.PERV-REL-COP.3.DEC]<sub>FC</sub>  
 There was no water, so he said ‘OK, well I’ll bring it by myself’ and went down (to the river)

All types of subordinate clause may be marked with the suffix *-fa(kama)* to form a concessive clause encoding contrast; the following example is from the same story as (43):

- (44) [imau ai-fa]  
 [INTENS.LOC exist.IMPERV.1/3.DS-CONC]<sub>SC</sub>  
 [wiŋa-kũ ukuki-u-ai]  
 [go.IMPERV-SIM.3.SS leave.PERV-REL-COP.3.DEC]<sub>FC</sub>  
 Although (the jaguar) was right there, (the young man) left (the house) to go



The following example is from a story of a man who tames a baby bear, which he names Chunu. The bear eventually reverts to its wild state and stops coming when called:

- (45) [tʃunu mina-mi-ka ta-ma-ʃa]  
 [Chunu come.IMPERV-2-INTER say.IMPERV-NON.A/S>A/S-CONC]<sub>SC</sub>  
 [ayatak imau ikimasa-u]  
 [only INTENS.LOC sit.PERV-REL]<sub>FC</sub>  
 Although (the man) said ‘Chunu, are you coming?’, (Chunu) just sat right there

Note in the following example that the concessive suffix appears on a bridging verb (as discussed above in §2.3.1):

- (46) [waamaka hu-huki-ta-hu-mi waha-u]  
 [quickly take-1sg.O.PERV-IMP-PL-2 call.IMPERV-REL]<sub>SC</sub>  
 [nuni-tāi-ʃakama] [antuka-tʃa-aha-u]  
 [do.that-SBD.1/3.DS-CONC]<sub>BRIDGE</sub> [listen.PERV-NEG-PL-REL  
 aina-wa-i]  
 COP.PL.IMPERV-3-DEC]<sub>FC</sub>  
 He called out ‘quickly take me away!’, (but) although he did that, they didn’t listen

Both types of contrast marking (*tuhā* ‘but’ and *-ʃa(kama)* ‘concessive’) show strict ordering: the supporting clause must precede the focal clause.

### 3.5. *V Alternatives*

3.5.1. *Disjunction (Vd)* Disjunction may be encoded with *atsa* ‘or’ in alternative questions:

- (47) [nihamantʃi wakiɬa-mi-ka] [atsa tsabau wakiɬa-mi-ka]  
 [masato want.IMPERV-2-INTER] [or chapo want.IMPERV-2-INTER]  
 Do you want *masato* (manioc beer) or *chapo* (plantain beer)?

The verb of the second clause can be omitted, as it is always the same—so this is functionally more like NP disjunction. The word *atsa* also means ‘no’, and is related to the negative existential verb *atsu*. A disjunction linkage may also be simulated by a bridging verb marked with negative and conditional, so that two clauses *x* and *y* are linked as ‘*x* [and if not *x* then] *y*’.

3.5.2. *Rejection (Vr)* Rejection linkage is rare in the corpus, and is expressed with *tuhā* ‘but’ introducing the focal clause.

- (48) [dakita-u                      [apa-hĩ-haĩ                      wĩ-ta-na]]  
 [refuse.PERV-REL    [father-PERT.3-COMIT    go-ACT.NOMZ-ACC]]<sub>SC</sub>  
 [tuhã    duku-hĩ-haĩ                      imaʃi    wĩuqa-u                      ʃiiha]  
 [but    mother-PERT.3-COMIT    more    go.IMPERV-REL    well]<sub>FC</sub>  
 He refused to go with his father, but went rather with his mother

### 3.6. VI Manner

Manner relationships are rare in the corpus, and only Real (VIR) is represented. There are no examples of hypothetical manner clauses in my data.

3.6.1. *Real (VIR)* Manner is indicated by the ‘normative’ suffix *-taia(mĩ)*; this suffix forms a Main clause with first person plural subject. It has no tense or aspect, and refers to habitual activities—‘the way we do things’.

- (49) [[ kanu    apia-ku]                      ituh-taia]    [dutikã]  
 [[canoe burn.IMPERV-SIM.1pl.ss]    do-NORM]<sub>SC</sub> [do.PERV.SEQ.3.ss]<sub>FC</sub>  
 (They) having done as we do when burning out a canoe, (they stuffed kindling in the hole)

Comparison can also be expressed within an NP by *tukĩ* ‘as if’:

- (50) [tukĩ    himpi]                      wakituki-u-ai  
 [as.if    hummingbird]<sub>NP</sub>    go.back.PERV-REL-COP.3.DEC  
 He ran back like a hummingbird (i.e. straight and fast)

## 4. Discussion

Three main points of interest arise from the preceding description, relating to mergers of the semantic types presented in Chapter 1:

1. Temporal succession (Is) and relative time (Ir) form a single system
2. Cause (IIC) and result (IIR) relations are not distinguished grammatically
3. The distinction between temporal (Is/r) and consequence (IIC/r) relations is neutralized when the action of the supporting clause is prior to that of the focal clause

The third observation coincides with that of Thompson and Longacre (1985: 181), that ‘two events which are mentioned together as being simultaneous or adjacent in time are often inferred to be causally related’. Within the merged types, however, distinctions emerge based on the relative timing of the two clauses being linked, as shown above.

Addition (IV) other than contrast is generally expressed with the same structures used for temporal (I) and consequence (II). As a result, ‘pure’

addition, expressed by apposition, is rare—most clause linking constructions have some temporal or causal implication.

There is a general preference for the supporting clause to precede the focal clause, although the order can be reversed in most types. Non-inflecting subordinate clauses and bridging constructions require a fixed ordering of clauses which results in the supporting clause preceding the focal clause. The semantic types elaboration (IVe) and contrast (IVc) are basically expressed by apposition, so the ordering of clauses is meaningful; and these too require that the supporting clause precede the focal clause.

As noted above, subordinate clauses most commonly precede their controlling clauses, although such ordering is not always grammatically required. In most linkage types the focal clause is a Main clause; it is natural then that the typical ordering is [SC] [FC]. In purpose (IIp) and possible consequence (III) types, however, the focal clause is subordinate to the supporting clause, and in this case the preference for the focal clause to be final overrides the usual preference for a Main clause to be final.

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# The Semantics of Clause Linking in Ojibwe

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## 1. Background

Ojibwe is a general term for a group of closely related Algonquian languages and dialects that were spoken in the northern Great Lakes region of North America at the time of contact with Europeans in the early seventeenth century. In this chapter I will present data exclusively from the variety still spoken along the shores of Lake Huron, identified by its speakers as Nishnaabemwin, and by linguists as Ottawa or Odawa. The language is spoken fluently and robustly by several hundred speakers on Manitoulin Island, in northern Lake Huron, but is not being actively learned by children, so the present generation of speakers will probably be the last to use the language vitally. There are also limited numbers of speakers at other communities around Lake Huron, such as Walpole Island and Cape Croker, Ontario. Text collections are available, most notably those collected by linguists such as Leonard Bloomfield (Bloomfield 1957 and Williams 1991) and Carl Voegelin, e.g., in Nichols (1988). The Lake Huron dialects of Ojibwe are described in detail in Valentine (2001), to which the reader is referred for additional details.

The Ojibwe were traditionally hunters and gatherers, and played a key role in the expanding European fur trade that began in the early seventeenth century. Due especially to their extensive contact with the Hurons, the Odawa engaged in incipient agriculture more than other Ojibwe groups. Nonetheless, all Ojibwe groups appear to have shown considerable atomism and autonomy apart from kin, and, more broadly, totemic bonds. The Odawa took up agriculture in earnest in the nineteenth century when they became sedentary due to extensive white settlement in their traditional homeland areas.

I will use the standard practical orthography now prescribed for southern Ojibwe, essentially as outlined in Rhodes (1985), with a few adjustments to accommodate the needs of an annotated interlinear display. The phonological

inventory of Odawa is relatively simple, consisting of seven vowels, three short, spelled *a, i, o*, and four long, spelled *aa, e, ii, oo*, having phonetic values roughly equivalent to standard IPA values. There are seventeen consonants, spelled *b, d, g, p, t, k, h, z, s, zh, sh, j, ch, m, n, w, y*. The consonants have phonetic interpretations corresponding closely enough to English as to require little comment, other than that the letter *h* is used to indicate a glottal stop, which is often omitted in rapid speech. There is also a morphophoneme, usually represented as /N/, which phonemicizes variably as /n/, /zh/, or fortition of a following obstruent. For example, the manner relational element (discussed below) is phonemically realized variably as /in/, /izh/, or /i/ + fortition (as in /ikido/, ‘speak in such a way, say such’). Another morphophoneme, /S/, is realized as /s/ or /sh/.

The only phonological rules that need concern us are those precipitating vowel deletion, the most prominent of which is a ubiquitous rule of unstressed vowel syncope. This rule deletes all unstressed vowels, stress being computed by means of a simple iambic scansion from the left edge of the word, with the restriction that only short vowels can occupy weak positions. The final vowel of a word is never deleted, regardless of its length. Syncope is important because the standard orthography spells words to reflect its effects, as I do here. So, for example, we find the spelling *mkizin*, ‘shoe’, from /makizin/ (cf. English *moccasin*), but *nmakzin*, ‘my shoe’, when the first person possessor prefix *ni-* is added, due to the altered scansion following from the addition of the prefix. I will generally not restore syncopated vowels in my interlinear presentations, unless they have grammatical pertinence, such as the third person prefix, *o-*.

Another phonological rule, unrelated to syncope, deletes word-final short vowels and glides, and is relevant to our purposes because it sometimes deletes the verbal third person independent order suffix *-w*. I will restore this suffix in my interlinear displays.

## 2. Brief typological profile

The word classes of Ojibwe are nouns, pronouns, verbs, adverbs, numbers, particles, pre-nouns, and preverbs. Nouns are of two inherent genders, animate and inanimate, with membership largely semantically determinable, though many grammatically animate nouns are notionally inanimate, such as *sab* ‘(fish) net’, and *kik* ‘kettle’.

### 2.1. Verbs

Verbs are of four derivational and inflectional subclasses, based on their transitivity and the animacy of their subjects (S), if intransitive, and objects (O),

if transitive. The four subclasses are conventionally called animate intransitive (VAI), inanimate intransitive (VII), transitive animate (VTA), and transitive inanimate (VTI). Transitive and intransitive verbs typically come in derivational pairs, e.g., *aabjih* ‘use ANIM’ (VTA) and *aabjitoon* ‘use INAN’ (VTI) form a pair, as do *aabdizi* ‘be useful, be used’ (VAI) and *aabdad* ‘be useful, be used’ (VII). The subclass of a verb is usually determinable from an identifiable derivational component called a final, e.g., the transitive verbs above have the finals VTA /-ih/ and VTI /-it/, and the intransitive, VAI /-izi/ and VII /-ad/. Large numbers of verbs show the same pairings of finals. Verbs that express the semantic equivalents of ditransitives in other languages, such as benefactives and verbs of transfer, invariably treat the recipient or beneficiary (and other types of applicative) as the grammatical primary object (O) in Ojibwe, e.g., the verb *miizh*, ‘give (something) to s.o.’, shows object inflection for the person, number, and obviation of the recipient, and only in certain participial forms for any properties of the thing given. Consider too a benefactive such as *zhitmaw*, ‘make (something) for s.o.’, which treats the beneficiary as primary grammatical object, or the even more peripheral relationship of possession, as indicated by *aabjit-maw*, ‘use (something) belonging to s.o.’, which treats the possessor as primary inflectional object.

There is also a small class of derivationally animate intransitive verbs which shows promiscuous inflectional marking for both animate and inanimate third person objects in the independent order. These are customarily referred to as VAI + O verbs.

## 2.2. *Preverbs*

There is a substantial group of prefixes, called preverbs, which attach loosely to verbs and specify a variety of concepts including such things as tense, mode and mood, directionality, and a small set of relational notions including source, manner, location, extent, degree, and quantity. Each preverb is set off with a hyphen in the standard orthography, as in *ndaano-gii-gojtoon*, ‘I tried to do it’, with preverbs *aano-*, ‘try to, in vain’, and *gii-*, past tense. Phonologically, preverbs form compounds with their stems, and each preverb acts as a separate domain for the application of syncope, e.g., scansion resets at a preverb boundary and the final vowel of a preverb never deletes. They thus have a status somewhat between that of a word and an affix, and in many Algonquian languages preverbs even admit the intrusion of autonomous words between them (see, e.g., Shields to appear for Menominee), but this is rare in Odawa.

The relational preverbs, which comprise a coherent subclass, are relevant to Ojibwe clause linkage. These elements can in fact occur in two distinct positions within a word, either as preverbs, or as root (initial) elements within

the primary derivational stem of the word, traditionally described structurally as root/initial + (medial) + final.<sup>1</sup> Many morphemes in Algonquian languages can occur variably as either compounded preverbs or as roots, including relational elements, though relationals are usually referred to as relative *roots* in Algonquian literature when discussing their grammar. In Ojibwe, following Rogers (1978), these are: /akw/ 'temporal occasion, extent'; /apiit/ 'extent'; /iN/ 'manner, location'; /ond/ 'origin, source'; /daN/ 'place'; and /daS/ 'frequency'. Relative roots and preverbs are important to clause linkage because they require complements, and in some cases their complements are whole clauses or sentences, and the relationships that they express sometimes correspond to clausally linked constructions in other languages. In some ways they correspond to oblique adpositions in other languages, but as Rhodes (2006) has demonstrated, their complements stand between core arguments and obliques, based on various syntactic and semantic criteria. I will have occasion to bring them up at various points in the discussion that follows.

### 2.3. *Particles*

There is an exceedingly robust collection of second position enclitics, commonly called particles, including *dash*, *sa*, *sha*, *wiin*, *go*, and *naa*, which indicate discourse features of sequence, contrast, and emphasis, and speaker attitudes such as heightened assertiveness and mirativity. These clitics also provide clues to clause and sentence structure by virtue of their positional restrictions.

### 2.4. *Inflection*

Ojibwe inflection is rich. Nouns are inflected for their number and obviation status, and the person, number, and obviation of any possessor. Obviation is a grammatical category that has both discourse and syntactic functions in Ojibwe. Syntactically, only one argument of a multi-argument construction can be proximate, and any other animate arguments are overtly marked as obviative. For example, ditransitive verbs (which, as we have seen, are always VTA) have three arguments, but only one of these can be proximate. The following example illustrates, with the verb *miizh*, 'give (something) to ANIM', having three animate arguments, two of which are obviated.<sup>2</sup>

<sup>1</sup> When morphologically simple, initials are often called roots. But initials can also be derivationally complex.

<sup>2</sup> The symbol » is used to express transitive relations, e.g., 3sg»3.OBV indicates that an animate third person singular proximate A acts on an animate third person obviative O. In the independent order, the morphological marking for A and O involves both person prefixes and thematic suffixes. In my annotations, the last element in a transitive gloss, such as 3sg»3.OBV:IND, reflects the combined effects of both prefix and suffixes, since the explicit morphological identification of thematic suffixes is not the focus here.

- (1) [Zhaabdiis]<sub>A</sub> o-gii-miin-aan [mBil-an]<sub>O</sub>  
 John.PROX 3:IND-PAST-VTA:give.to.O-3sg»3.OBV:IND Bill-OBV  
 mshiimn-an.  
 apple-OBV  
 John gave Bill an apple.

Only animate nouns are overtly marked for obviation, but inanimate nouns can show obviative cross-referencing on associated verbs. This inanimate marking is often optional.

Verbs are inflected for the person, number, and obviation of their subjects (A and S) and grammatical objects (O), though animate objects are more consistently and overtly marked than inanimates, especially in the conjunct inflectional order (discussed below). Ojibwe inflectional morphology is generally characterized by a rather rigid enforcement of grammatical hierarchies, in which local participants (first and second persons) outrank non-local (third persons), animates outrank inanimates, and proximates outrank obviatives. This aspect of the language is also seen in the nature of transitive predications, in which only one core argument can be grammatically inanimate. Nor can inanimates be possessors. Furthermore, inanimate intransitive verbs (VII) have no first and second person forms.

2.4.1. *Verbal orders and aspectual-evidential modes* A central feature of the language is the existence of three distinct verbal orders, or inflectional systems, called independent, conjunct, and imperative. Roughly, independent order is used with verbs in main clauses, conjunct with verbs in subordinate clauses and content questions, and imperative with commands. Each order has its own inflectional template, its own negation morphosyntax, and, for the independent and conjunct orders, contrasting allomorphs for many tense and modal preverbs. For example, one set of future tense preverbs used with the independent order, *da-* and *ga-*, has *ge-* as its conjunct analogue. The independent order uniquely has person prefixes, so structurally resembles noun possession. The conjunct order is unique in having a morphological process called initial change, which mutates the first vowel in the verb complex, which includes preverbs, according to regular patterns, e.g., if the first vowel is /ii/, it mutates to /aa/, if it is /a/ or /i/, it mutates to /e/, and so on. For example, *waa-dzhi-nokiyaang* ‘where we (excl.) were to work’, shows initial change applying to the future intensive preverb *wii*, producing *waa-*, because this is the first vowel in the verb complex. Initial change is required in many grammatical contexts, such as with participles (verbs bearing hybrid verbal and nominal inflection, and constituting the Ojibwe equivalent of relative clauses), most content questions, conjunct verbs containing relational elements, and



TABLE 1. The four primary verbal subtypes and three inflectional orders of ojibwe

|                                 | Independent   | Conjunct  | Imperative                          |
|---------------------------------|---|---|-------------------------------------|
| VTa waabam<br>'see s.o.'        | <b>g</b> -waabm-aa- <b>g</b><br>'you sg. see them'    | waabm- <b>ad</b> -waa '(that)<br>you see them'  | waabam-i<br>'see him/them!'         |
| VTi waabndan<br>'see s.t.'      | <b>g</b> -waabndam- <b>n-an</b><br>'you sg. see them' | waabndam- <b>an</b><br>'(that) you see it/them' | waabndam- <b>n</b><br>'see it/them' |
| VAi nakii<br>'work'             | <b>gd</b> -ankii<br>'you sg. are<br>working'          | nakii-yin<br>'(that) you are<br>working'        | nakii- <b>n</b><br>'work!'          |
| VII naangan<br>'be lightweight' | naangan- <b>w</b><br>'it is lightweight'              | naangan- <b>g</b><br>'(that) it is lightweight' |                                     |

conjunct verbs inflected for the dubitative evidential mode. Verbal order is an important component of clause linkage, because it overtly marks subordination status, and indeed, is sometimes the only marker of such.

Table 1 provides examples of the differences among the three orders. Italicized inflections in the table are those subject to surface deletion by phonological rule.

There are four aspectual-evidential modes for verbs, indicative (or neutral), preterit, dubitative, and preterit-dubitative. Their core functions are as their names suggest.

## 2.5. Syntax

Syntactically, Ojibwe is non-configurational (Hale 1983), manifesting the hallmark features of null anaphora, relatively free constituent order, and discontinuous constituency. Constituent order is often said to be tied to definiteness, in that indefinites (new information) typically precede the verb, while definites (old information) commonly follow it. The clause-structure template put forward in Dahlstrom (1995) for Fox, another Algonquian language, can be usefully applied to Ojibwe as well, as a rule of thumb:

(Topic) [(Neg) (Focus) (Oblique) V Core arguments (A and O or S)]

All verbs in Ojibwe are finite, though abstract nouns can be derived from verbs. Such deverbal nouns can only be derived from intransitive verbs, however, and as a result never have object complements. Subjects of such nouns are not expressed in construction with the noun, either, so subjects and objects of the sort expressed by English *the enemy's destruction of the village* never occur.

As noted above, Ojibwe subordinate clauses are obligatorily inflected with conjunct order inflection, with or without the morphosyntactic ablaut process

of initial change. There is a small set of clause introducing adverbials, such as *megwaa* ‘while’, and *giishpin* ‘if’, which typically, but not always obligatorily, are clause initial. There are also preverbs related to subordination, such as *shkwaa-* ‘after’, and *ji-bwaa-* ‘before, lest’. Many verbs take clausal complements, which of course have their verbs inflected for conjunct order, often the only marker of complement status. Northern dialects of Ojibwe have and robustly use subordinating preverbs, typically *e-* and *gaa-*, the latter no doubt historically derived from the initial-changed form of the past tense preverb, *gii-*. The origin of *e-* is said to be from an unchanged subordinating preverb *a-* (Rhodes 1985), which does not occur in northern dialects, but does in the speech of one of Leonard Bloomfield’s principal Odawa informants, Andrew Medler. The changed preverb *e-* is now used extensively by many Odawa speakers where initial change is called for, essentially simplifying the allomorphy of stems, a major issue in a language with such robust syncope.

Relative clauses are internally headed in Ojibwe, and indicated by changed conjunct inflection on the clause’s verb, and special inflections that are both nominal and verbal, e.g., *nebaajig* ‘those sleeping’, from *vai* verb /*nibaa-* ‘sleep’, shows initial change of vowel /i/ to /e/, conjunct animate third person inflection /-j/, and a nominal animate plural ending, /-ig/.

The last construction I will mention here involves verbs syntactically associated with the ubiquitous particle *mii*, which has many functions, including the type of discourse focusing associated with cleft constructions, as can be seen from the following example:<sup>3</sup>

- (2) “*mii*    *sa*            *maaba*        *ge-wiidgem-ag*,”  
       *so*        EMPH    this:ANIM    IC + FUT-VTA:marry.O-1sg»3sg.CNJ  
       *kido-w*                            *sa*            *giiwenh*.  
       *vai:say.such-3.IND*    EMPH    allegedly  
       “‘This the one that I want to marry,’ she reportedly said. (SO)<sup>4</sup>”

<sup>3</sup> Recall that initial change is a vowel substitution process that affects the first vowel in a verb along with its associated preverbs. To accommodate a single annotation line, I represent initial change with *ic* and a plus (+) sign, to indicate that it is reflected *within* the preverb or verb associated with it, e.g., the changed form *ge-* of preverb *ga-*, future tense, is glossed as *IC + FUT*.

<sup>4</sup> The analysis in this chapter is based on examples from various textual sources, as well as sentences directly elicited from a fluent native speaker of Manitoulin Island Odawa, Dr Mary Ann Corbiere. The abbreviations used with examples are as follows: AM (Andrew Medler, who was from Walpole Island, Ontario, and whose speech is recorded in Bloomfield 1957); AW (Angeline Williams, who was from near Sault Ste. Marie, Michigan, and is recorded in Williams 1991; note that her speech does not show vowel syncope); FF (Francis X. Fox, originally from Manitoulin Island, recorded in Fox and Soney 1988); IT (Isadore Toulouse, who is from Manitoulin Island, recorded in Valentine 1991); MC (Mary Ann Corbiere, who is from Manitoulin Island, materials from personal consultation and ongoing dictionary work that we are actively engaged in); SO (Sam Osawamick, who was from Manitoulin Island, Ontario, and whose speech is recorded in Kaye, Piggott, and Tokaichi 1971 and Piggott and Kaye 1973).

TABLE 2. Summary of Clause Linking in Ojibwe

|                         | §     | English              | Supporting Clause                                   | Focal Clause          | Order  | Other Uses of Linker(s)                           |
|-------------------------|-------|----------------------|---|-----------------------|--------|---|
| I Temporal              | 3.1-3 |                      |   |                       |        |   |
| Is, Temporal Succession | 3.1   | and, then, and then  |   | (mii dash) + conjunct | fixed  | mii focus   |
| Ir, Relative Time       | 3.2a  | after                | gii-pvshkwaa-pv + conjunct                          |                       | either | shkwaa-pv 'finish';<br>'while'                    |
|                         | 3.2b  | before               | ji-pvbwaa-pv + conjunct                             |                       | either | ji-pv irrealis;<br>bwaa-pv negative;<br>'lest'    |
|                         | 3.2c  | when                 | (pii +) changed conjunct<br>wii-pv + plain conjunct |                       | either |   |
|                         | 3.2c  | whenever             | (giishpin ~ pii) V <sub>iterative</sub>             |                       | either | giishpin 'if'                                     |
|                         | 3.2d  | since                | /akw/-RR + ch. conjunct                             |                       | either | /akw/ also 'as long<br>as'                        |
|                         | 3.2e  | until                | biinish + conjunct<br>baamaa (pii) 'not until'      |                       | either | biinish also 'as far<br>as'                       |
|                         | 3.2f  | while                | megwaa + conjunct                                   |                       | either | baamaa also 'later'<br>megwaa 'in midst<br>of...' |
| Ic, Conditional         | 3.3   | if... then           | giishpin + plain conjunct                           |                       | either |   |
| II Consequence          | 3.4-7 |                      |   |                       |        |   |
| IIC, Cause              | 3.4   | because, therefore   |   | 1 ~ onji-pv           | fixed  | nzaam 'too<br>(much)';<br>zaami-pv 'too...'       |
|                         |       |                      | 2 zaam  |                       |        |   |
| IIR, Result             | 3.5   | (and) so             |   | (mii) dash            | fixed  |   |
| IIP, Purpose            | 3.6   | in order that, to... | 1 F-S wii-pv<br>2 S-F wii-pv                        | 2 onji-pv             | fixed  |   |

|                          |         |                       |   |   |                       |  |
|--------------------------|---------|-----------------------|---|---|-----------------------|--|
| III Possible consequence | 3.7     | in case, lest         | gnamaa + (plain) conjunct<br>wendgwenh + (plain) conj.<br>ji- <sub>PV</sub> bwaa- <sub>PV</sub> + conjunct<br>V <sub>ind</sub> giishpin ‘otherwise’ |   | fixed                 | gnamaa, ‘perhaps’<br>bwaa-, negative<br>preverb<br>giishpin ‘if’ |
| IV Addition              | 3.8-11  |                       |   |   |                       |  |
| IVu, Unordered addition  | 3.8     | and                   | miinwaa; ge, gewe   |   |                       |  |
| IVs, Same-event addition | 3.9     | and, moreover         | <apposition>  |   | either                |  |
| IVe, Elaboration         | 3.10    | <apposition>          | <apposition>  |   | either                |  |
| IVc, Contrast            | 3.11    | but, although         | 1 msawaa + conjunct<br>4 aanwi  | 2 dash<br>3 shwii go, swii go                           | 1 either<br>2-4 fixed | /aanaw/ <sub>RT</sub> ‘in vain’                                  |
| V Alternatives           | 3.12-14 |                       |   |   |                       |  |
| Vd Disjunction           | 3.12    | or                    | maa(sh) ge, maa gaye  |   | either                | NP maage ... NP<br>maage   |
| Vr Rejection             | 3.13    | instead of            | meshkot   |   | fixed                 |  |
| Vs Suggestion            | 3.14    | rather than           | 1 gaawii + daa- <sub>PV</sub><br>2 pii dash + da- <sub>PV</sub><br>+ conjunct   | 1 gnamaa ... daa- <sub>PV</sub><br>2 daa- <sub>PV</sub> | either                | daa- = modal<br>preverb  |
| VI Manner                | 3.15-16 |                       |   |   |                       |  |
| VIr Real                 | 3.15    | like, in the way that | /iN/ <sub>RR</sub> + ch. conjunct   |   |                       |  |
| VIh Counterfactual       | 3.16    | as if, (like)         | 1 (mii naasaab)<br>2 dibishkoo ... daa-gii-   | 1 mii naasaab + /<br>iN/ <sub>RR</sub> + ch. conjunct   |                       |  |

Notes: F = focal clause; s = supporting clause; PV = preverb; RR = relative root; RT = verbal root.

Relative time is expressed by means of orientational preverbs such as *shkwaa-* ‘after’, and *ji-bwaa-* ‘before’, attached to the predicate of the SC clause, or with SC clauses introduced with relator adverbs such as *megwaa* ‘while’. Verbs in the SC are inflected for conjunct order.

(a) Point in time (past) This relation is expressed with preverb *shkwaa-* attached to the verb in the SC, which shows conjunct order inflection. The preverb *gii-* PAST (changed conjunct form *gaa-*), almost always occurs with *shkwaa-*.

- (4) [gaa-shkwaa-maawnjihdi-yaang]<sub>SC</sub> [n-gii-gchi-wiisnimi]<sub>FC</sub>.  
 IC + PAST-after-VAI:meet.together-1pl:CNJ 1:IND-past-greatly-VAI:eat-1pl:IND  
 After our meeting, we went and had a big meal. (MC)

The SC clause can also follow the FC. The same construction is used to reference a future event that will temporally precede another, e.g., the equivalent of English ‘after I’ve done X, I will do Y’, but with *gii-* ‘PAST’ more optional on the verb in the SC. The preverb *shkwaa-* is also used with the logically-related meaning ‘quit’, e.g., *gii-shkwaa-nakii* ‘he quit work’ (*gii-*, PAST, *nakii* ‘she or he works’). With changed conjunct it is also used to indicate ‘while it lasts’, in cases where the associated state is viewed as contingent and/or temporary, as in the following example.

- (5) [gojiing g-daa-bbaa + yaa-m]<sub>FC</sub>,  
 outside 2:IND-MODAL-VAI:be.around-2pl:IND  
 [eshkwaa-mno + giizhgad-g.]<sub>SC</sub>.  
 IC + while.lasts-VII:be.nice.day-0:CNJ  
 You should be [spend time] outside while it’s a nice day. (MC)

(b) Point in time (future) This type of linkage is expressed via preverbs *ji-bwaa-*, along with conjunct order inflection. Note that *ji-* is independently an irrealis/future preverb, and *bwaa-* is a negative, and both are used only in the conjunct order. These together express the concept of ‘before’ by virtue of a composite meaning akin to ‘not yet’. The combination *ji-bwaa-* is also used to mean ‘lest’.

- (6) [ji-bwaa-nbaa-yaan gwa]<sub>SC</sub> [nd-akwe-biindaakwe]<sub>FC</sub>.  
 IRR-NEG-VAI:sleep-1sg:CNJ EMPH 1:IND-first-VAI:smoke  
 Before I go to bed I (shall) first have a smoke. (AM)

Sentence (6) can express an habitual as well as a particular instance. The FC can readily precede the SC.

(c) Point in time (same time) Simultaneous relative time in the past is expressed by means of the changed conjunct appearing on the subordinated verb (7), and optionally, the presence of the clause-initial particle *pii* ‘when’ (8). Simultaneous future time is expressed with the plain conjunct and preverb *wii-* ‘will’ (9). The FC and SC can be reversed in these constructions.

- (7) [ENI-dgoshn-aan dash besho]<sub>SC</sub> [mii  
 IC + there-VAI:arrive-1sg:CNJ then near then  
 gii-gnoon-ag]<sub>FC</sub>.  
 PAST-VTA:speak.to.O-1sg»3sg:CNJ  
 When I got near her I spoke to her. (AM)
- (8) [pii dash menookmi-g]<sub>SC</sub> [Ziisbaakdoke-giizis  
 when then IC + VII:be.spring-o.CNJ Maple.sugar.making-moon.ANIM  
 egoojin-g]<sub>SC</sub> [gii-gsinaamgad-w]<sub>FC</sub>.  
 IC + VAI:hang-3:CNJ PAST-VII:be.cold.weather-o:IND  
 Then when the spring was at hand, in the month of March, there was  
 cold weather. (AM)
- (9) [ngo-namhe + giizhgad-g noongo maanda giizhgad-g]<sub>FC</sub>  
 one-VII:be.a.week-o:CNJ today this:INAN VII:be.day-o:CNJ  
 [mii wii-webkamgad-g]<sub>SC</sub>.  
 so FUT-VII.begin.as.event-o:CNJ  
 A week from today is when it will begin. (AM)

There is also a grammaticalized means of expressing iterative coincidence, using a special inflectional mode, the iterative, which is signaled via the changed conjunct and the iterative suffix *-in* (with the final /n/ omitted by most speakers).

- (10) [waya yaakzi-j-in]<sub>SC</sub> [mii go  
 someone IC + VAI:be.ill-3:CNJ-ITER EMPH  
 gii-mdoodooh-ind maa mdoodoowgamgw-ing]<sub>FC</sub>.  
 PAST-VTA:give.O.sweatbath-X»3:CNJ there sweatbath-LOC  
 Whenever anyone fell ill he was given a sweatbath there in the  
 sweatlodge. (AM)

The iterative construction can also be introduced with the conditional adverb *giishpin* 'if', and either order of FC and SC is grammatical.

- (11) [giishpin gemwan-g-in]<sub>SC</sub>  
 if IC + VII:rain-o:CNJ-ITER  
 [endaa-yang gd-ayaa-min]<sub>FC</sub>.  
 IC + VAI:live.there-1pl.inc.CNJ 2.IND-VAI:be.there-1pl:IND  
 If ever it rains we stay home. (AM)

(d) Length of time (past) One common way to express the concept of 'since' is with a verb containing either relative/relational root /akw/ or its preverb counterpart, /ako-/, attached to the verb in the SC, which shows changed conjunct inflection. Either order of FC and SC is grammatical.

- (12) [noongo bijiinag **eko-ayaa-d** Gichi-mookomaan]<sub>SC</sub>  
 now recently IC + **since**-VAI:be.there-3:CNJ white.American  
 [od-ayaan-an ashkodens-an]<sub>FC</sub>.  
 3:ind -VTI:have.O-3S»opl:IND match-INAN.PL  
 Only now, since the coming of the White American, has he matches. (AW)

The relative element /akw/ is also used to express the related temporal notion of 'as long as', which it does with morphosyntax matching its usage as 'since'.

- (13) mii dash gaa-in-aawaad, biindig go maanoo  
 so then IC + PAST-VTA:say.to.O- 3pl»3.OBV:CNJ inside EMPH anyway  
 da-yaa-yan **eko-gshkihewzi-yan**.  
 IRR-VAI:be.there-2sg:CNJ IC + **as.long.as**-VAI:be.able.to.do-2sg:CNJ  
 Then they told him, "Be sure to stay in there **as long as** you can stand it."  
 (AM)

Another means of expressing 'since' is to use a time adverbial predicatively, in which case the SC is in changed conjunct, and inflected for past tense and preterit aspectual mode.

- (14) [**gchi-zhaazhi**]<sub>FC</sub> [gaa-waabm-ag-ba wa]<sub>SC</sub>.  
**very-long.ago** IC + PAST-VTA:see.O-1sg»3sg:CNJ-PRET that.one:ANIM  
 It's been a long time **since** I've seen that guy. (MC)

(e) Length of time (future) The concept of 'until' is expressed with the conjunction *biinish*. Sentence (15) shows the much more common construction, in which the verb within the *biinish* clause is inflected for conjunct. But this needn't be so, as (16) demonstrates, where the verb is independent. The order of the FC and SC can be reversed in (15), but the past tense preverb *gii-* must then be added to the verb of the FC. The order of clauses in (16) can be reversed, but if so, *biinish* must come first in its clause.

- (15) [o-gichi-REDUP-dewganaandam-n gimaa doopwin]<sub>FC</sub>,  
 3:IND-much-repeatedly-VTI:pound.on.O-3sg»osg:IND chief table  
 [**biinish** gii-bekaa + yaa-waad gaagda-j-ig]<sub>SC</sub>.  
**until** PAST-VAI:be.quiet-3pl:CNJ IC + speak-3:CNJ-ANIM.PL  
 The chief thumped the table [repeatedly] until the speakers quieted down. (MC)
- (16) [dbewgendam-n wi ziizbaakod]<sub>FC</sub>;  
 VTI:be.mindful.to.conserve.O-2S»O.IMP that:INAN sugar  
 [waabang aabdek **biinish** g-wii-debse-naa  
 tomorrow must until 2:IND-FUT-VAIO:have.enough.of.O-1pl.INC:IND



wi]<sub>SC</sub>.

that:INAN

Be mindful of that sugar; that has to last us until tomorrow. (MC)

The adverb *biinish* is also used to indicate spatial extent, translating as ‘as far as’. In this usage it often occurs with the relative root-preverb /ako-/, discussed above, indicating extent, as in ‘He *ako*-went with us *biinish* (as far as) Toronto.’

Another means of expressing future length of time is with the adverb *baamaa*, ‘not until’.

- (17) gbe-naagosh n-gii-zhibiihige; [mii go baamaa  
entire-evening 1:IND-PAST-VAI:write SO EMPH not.until  
yaabtaa + dbikad-g]<sub>SC</sub> [gii-oo-nbaa-yaanh]<sub>FC</sub>.  
IC + VII:be.midnight-O:CNJ PAST-TRANS-VAI:sleep-1sg:CNJ  
I wrote all evening; I didn’t go to bed until midnight. (MC)

(f) Length of time (same time) The concept of ‘while’ is expressed via a SC clause introduced with *megwaa* ‘while’. The associated verb is in the conjunct order. The SC and FC can be reversed (provided *dash* is eliminated from the FC).

- (18) [megwaa-sh go maaba Niibaakhom gchi-miigaaza-waad,]<sub>SC</sub>  
while-then EMPH this:ANIM much-VAI:fight-3pl:CNJ  
[mii-sh gii-gkendam-waad]<sub>FC</sub>.  
so-then PAST-VAI:come.to.realize -3pl:CNJ  
While Nibakom (and his men) were fighting hard, they realized something. (SO)

The adverb *megwaa* can also mean ‘in the midst of (doing)’, in which case the associated verb is inflected for independent order.

Another means of expressing ‘while, in the process’, exclusive to Odawa as far as I know, is to use preverb *epiichi-/piichi-* with the SC, which is in the conjunct. The order of clauses is freely reversible.<sup>5</sup>

- (19) [epiichi-naagshi + wiisni-waad]<sub>SC</sub> dash [gii-bmibiisaa-w]<sub>FC</sub>.  
IC + while-VAI:eat.supper-3pl:CNJ then PAST-VII:rain.go.along-O:IND  
But while they went off to eat dinner a rain storm came up and went. (FF)

Another way is to simply put the verb of the SC into conjunct order.

<sup>5</sup> Apostrophe is used in the orthography to represent the site of a vowel syncopation which results in the juxtapositioning of an /n/ and a /g/, to distinguish such sequences from those that have a velar nasal.

- (20) [n-gichi-b-baap]<sub>FC</sub> [b-bimdaabaan'go-yaanh]<sub>SC</sub>.  
 1:IND-much-REDUP-VAI:laugh REDUP-VAI:drive.along-1sg:CNJ  
 Then while I'm driving along I just have to laugh and laugh. (FF)

(g) *Locationals* Locational adverbial clauses resemble temporal, framing the FC in terms of an orientational SC locational clause. In the following example, the SC has a verb in the plain conjunct, which distinguishes it from a relative clause construction, for which the verb in the SC would obligatorily show initial change.

- (21) [mii sa go wadi gii-ni-dgoshin-g]<sub>FC</sub>  
 so EMPH over.there PAST-away-VAI:arrive-3:CNJ  
 [w-iijkiwenh-an koge-nid zhmaagnish-an]<sub>SC</sub>.  
 3:POSS-friend-obv vai:assemble-3.OBV:CNJ soldier-OBV  
 So he reached the place where his friends, the soldiers, were assembled. (SO)

### 3.3. *Conditional*

The conditional is straightforwardly expressed with an SC occurring with *giishpin* 'if', which typically introduces the clause, but may also be final. The verb is in the plain (unchanged) conjunct. The clauses may be freely reversed.

- (22) ["ki n-daa-zhitoo-n]<sub>FC</sub>, [giishpin  
 land.INAN 1S:IND-MODAL-VTI:make.O-1S»O:IND if  
 naadmaw-iyeg,"]<sub>SC</sub> od-in-aa-n  
 VTA:help.O-2pl»1sg:CNJ 3:IND-VTA:say.to.O-3sg»3.OBV:IND  
 giuwenh.  
 allegedly  
 "I can make some land, if you all help me," he says to them. (SO)

### 3.4. *Cause (with no necessary result)*

Cause is expressed by means of the relative root /ond/, or its associated preverb, *nji-*, or the related free relative adposition, *nji*, which typically follows its complement, but may precede it as well. This relational is canonically used to express ablative (origin, source) oblique semantic relations, but is extended to logical source as well. The relative preverb or root occurs on the verb of the FC. The clauses may occur in either order.

- (23) [mii iw wenji-izhinikaade-g]<sub>FC</sub> [gakina  
 so that:INAN 1C + from-VII:be.named-O:CNJ all  
 gii-nis-indwaa]<sub>SC</sub>.  
 PAST-vta:kill.O-X»3pl:CNJ  
 That is why it is called so, because all of them were killed. (AW)

The relative roots arose from free postpositions (see Rhodes 2006), but only postposition *nji* occurs with any frequency in modern Odawa. The following example illustrates its usage in causal constructions.

- (24) [aapji go o-zaagh-aan,]<sub>SC</sub> [mii go  
really 3:IND-VTA:love.O-3sg»3.OBV:IND so EMPH  
waa-zhi-boontaa-d IC-onji-nakii-d  
IC + INTENT-REL:thus-VAI:stop-3:CNJ IC-REL:from-work-3:CNJ  
niwin **nji**]<sub>FC</sub>.  
that.one:ANIM.OBV **on.account.of**  
He loves her so much that he's willing to give up his job for her. (MC)

Cause can also be expressed by means of a clause headed by the adverb *zaam* 'because', a feature found in other dialects, but more common in Odawa, perhaps because of its structural parallels with English *because*. The verb in this clause need not be conjunct. *Zaam* also occurs as a free adverb meaning 'too (much)' (as in (27), below) and there is a corresponding preverb *zaami-* 'too ...'.

- (25) [mii dash maanda shki-miiknod  
so then this:INAN new-sock(s)  
gaa-nji-yaamw-igoowaan]<sub>FC</sub>,  
IC + PAST-source-VTA:buy.for.O-X»1sg.CNJ  
[**zaam** maaba nimshish gii-miiji-d]<sub>SC</sub>.  
**because** this:ANIM darned.dog PAST-VTI:eat.O-3s»0:CNJ  
So this is why I was bought a new pair of pants, because this darned  
dog ate (my old). (IT)

These clauses can be reversed, but the result sounds stylistically unnatural.

### 3.5. Result

Result is expressed by means of a focal clause introduced by *mii dash*, or simply containing the adverb/particle *dash*. It is thus structurally identical to the linkage of temporal succession. The order of clauses cannot be reversed.

- (26) [gii-gwaakse-wan mtigw-an yaa-d]<sub>SC</sub>,  
PAST-VAI:fall.over-3.OBV:IND tree-ANIM.OBV VAI:be.there-3sg:CNJ  
[**mii dash** gii-aapzikooza-d]<sub>FC</sub>.  
**so then** PAST-VAI:be.killed.by.weight.of.something-3:CNJ  
The tree fell where he was, and so he was killed. (MC)
- (27) [Zaam niibna gii-wiisni-w]<sub>SC</sub>; [baashkjiishkaa-w **dash**]<sub>FC</sub>.  
too much PAST-VAI:eat-3sg:IND VAI:burst.open-3:IND **so**  
He ate too much, and so he burst open. (AM)



If the consequence is neutral or positive, then it is more commonly introduced with the dubitative adverb *wendgwenh* ‘whether’, and the verb in its clause is again conjunct, though with the irrealis preverb *da-*. The order of clauses in both (30) and (31) is fixed.

- (31) [ndagkendam-n skaan]<sub>FC</sub> [wendgwenh da-mbijiide-g]<sub>SC</sub>.  
 VTI:check.O-2sg»O:IMP scone whether IRR-VII:rise-O.CNJ  
 Check the scone to see if it’s rising (NB, while cooking). (MC)

A negative possibility can also be indicated with preverb combination *ji-bwaa-* ‘lest’, literally translatable as ‘so that not . . .’, with obligatory conjunct order inflection. The order can be reversed, but sounds stilted in style.

- (32) [n-gii-gkidmaw-aa ziizbaakdoons-an]<sub>FC</sub>  
 I:IND-PAST-VTA:hide.from.O-1sg»3sg:IND candy-INAN.PL  
 [ji-bwaa-gdaan-g]<sub>SC</sub>.  
 IRR-NEG-VTI:eat.up.O-3sg»O:CNJ  
 I hid the candies from him lest he ate them all up. (MC)

A negative consequence construction equivalent to English ‘otherwise’ constructions uses the adverb heading conditional clauses, *giishpin*, but in a postverbal position and with the verb in the independent order, neither of which holds true in conditional expressions.

- (33) [Nsaabaawdoo-n niwin zaagkiichgan-an]<sub>FC</sub>,  
 VTI:water.O-2S»OS:IMP those.INAN plant-INAN.PL  
 [da-bengkiide-noon giishpin niwin]<sub>SC</sub>.  
 IND:FUT-VII:dry.out-opl:IND otherwise those.INAN  
 Water those plants; otherwise they’ll dry out. (MC)

The order of FC and SC is fixed in these various constructions of possible consequence.

### 3.8. Unordered Addition

Unordered Addition is accomplished via clauses, usually of the same inflectional order, but not necessarily so, joined with the conjunction *miinwaa* ‘and’, which is perhaps related to *mii*. *Miinwaa* is also used to conjoin noun phrases.

- (34) giishpin daashkgase-waad miinwaa ziinnige-waad,  
 if VAI:cut.wood-3pl:CNJ and VAI:do.milking-3pl:CNJ  
 mii sa go ge nii.  
 SO EMPH EMPH I.as.well  
 If they cut wood and milked cows, then so did I. (MC)

3.9. *Same-Event Addition*

The examples I have of Same-Event Addition, all elicited, show a relationship of simple apposition, though with the resultative particle *dash* in the second clause, as we have seen for simple Temporal Sequence and Result. The order of clauses may be reversed, if *dash* is removed from the FC, making the relationship between the clauses less explicit.

- (35) [lottery gii-bkinaage-w Al]<sub>SC</sub> [gchitwaawzi-w-sh nongo]<sub>FC</sub>.  
           PAST-VAI:win-3:IND                   VAI:be.rich-3sg:IND-so now  
       Al won the lottery and got rich. (lit., Al won the lottery, and [so] now  
       he's rich.) (MC)

3.10. *Elaboration*

Elaboration is expressed through simple apposition. The order of clauses can be reversed.

- (36) [mii-sh giiwenh gii-nkwebn-aa-d wa nini]<sub>SC</sub>,  
       but allegedly PAST-VTA:catch.O-3sg»3.OBV:CNJ that:ANIM man  
       [gii-mjimn-aad idig zhiwi  
       PAST-VTA:grab.O-3sg»3.OBV:CNJ evidently there  
       o-nik-aani-ng]<sub>FC</sub>.  
       3.POSS-arm-3.OBV.POSS-LOC  
       But that man caught hold of him, probably grabbing him by the arm. (SO)

3.11. *Contrast*

In Contrast, the supporting clause is introduced with adverb *msawaa* (*go*) 'although', and the clause's verb is inflected as conjunct. The order of clauses is not fixed.

- (37) [Msawaa go gbeyiing zhaazhi skoonwi-yaanh  
       **although** a.long.time already VAI:study-1S:CNJ  
       waa-zhi-Nishnaabem-yaanh]<sub>SC</sub>, [gaa go  
       IC + INTENT-thus-VAI:speak.Ojibwe-1sg:CNJ not  
       mshi n-nitaa-Nishnaabemo-sii]<sub>FC</sub>.  
       yet 1:IND-be.good.at-VAI:speak.Ojibwe-NEG:IND  
       Although I've been studying Ojibwe for a long time, I still don't speak  
       it well. (MC)

Another means of contrast is with emphatic contrastive particle combinations such as *shwii go*, which is a contraction of second position contrastive particles *dash* + *wiin*, plus emphatic particle *go*. The combination *shwii go* can

also be used, which substitutes emphatic particle *sa* for *dash*. Because of the contrastive elements, the order of clauses is fixed.

- (38) [Boodwewaadmiinwi-wan o-gashw-an Rose],  
 VAI:be.a.Potawatomi-3.OBV:IND 3.POSS-mother-OBV  
 [w-oos-an sh-wii go Daawaa aawi-wan].  
 3.POSS-father-OBV **on.the.other.hand** Odawa VAI:be-3.OBV:IND  
 Rose's mother is Potawatomi, but her father's Odawa. (MC)

The simple contrastive particle *dash* can also be used in the second clause, as we have seen in many other cases, especially if the second clause simply negates the content of the first. In the following, *dash* is cliticized and reduced to *-sh*. Clause order in (39) is fixed.

- (39) [wii-bizhaa-d gii-kida-w Leona],  
 INTENT-VAI:COME-3:CNJ PAST-VAI:say.such-3:IND  
 [gaa-sh gii-zaagewe-sii-w].  
 not-but PAST-VAI:show.up-NEG:IND-3:IND  
 Leona said she would come, but she didn't. (MC)

Lastly, clauses akin to English *although* constructions can be expressed with the free adverb *aanwi*, which is either initial in the SC, or in second position (but after the discourse particles). Conjunct order is not required on verbs in clauses with *aanwi*, but can occur. *Aanwi* is also used to mean 'anyhow' and 'fortunately' in Odawa, in the latter usage of which it is usually non-initial.

- (40) [Aanwi go shpangde-g siniikaade-g  
**although** EMPH VII:be.expensive-O:CNJ VII:have.brick-O:CNJ  
 wiigwaam]<sub>SC</sub>, [dbahgesemgad-w]<sub>FC</sub>.  
 house VII:pay.off-O:IND  
 Although it is expensive to use bricks on a house, it pays off. (MC)

### 3.12. Disjunction

Disjunction is expressed by means of apposed clauses joined with *maage* 'or' (or related *maa...gewe*). In declarative statements, both clauses have verbs in the independent order.

- (41) pii miinwaa niibin-g, [Gchi-gaaming  
 when again VII:be.summer-O:CNJ Europe  
 n-ga-zhaa] [maage Lakehead  
 1:IND-FUT-VAI:go.there **or**  
 n-ga-oo-skooniw].  
 1:IND-FUT-TRANS-VAI:study  
 Next summer I'll either go to Europe or study at Lakehead (University). (MC)

3.13. *Rejection*

Rejection is expressed with the adverb *meshkot* ‘instead’, in the clause expressing the preferred alternative, the FC, which is also marked with the contrastive particle *dash*. The SC usually contains a negative clause expressing the rejected alternative.

- (42) [gaawii maamdaa nJaan wii-mdwewechge-d]<sub>SC</sub>,  
 not able John FUTURE-VAI:play.instrument-3:CNJ  
 [Maanii **dash meshkot** da-naazhaabiighige-w]<sub>FC</sub>.  
 Mary **rather instead** FUT-VAI:play.violin-3:IND  
 Mary will play the violin, instead of John playing guitar (as originally planned). (MC)

The order of clauses can be reversed, but only by adding *zaam* ‘because’ to the SC.

3.14. *Suggestion*

Suggestion also involves the use of *meshkot* ‘instead’, again in the preferred alternative, which is the FC. It differs from Rejection in having a modal adverb such as *gnamaa* ‘perhaps, maybe’, in the FC as well. The SC, as with rejection, consists of a negative clause.

- (43) [gnamaa **dash** gewe mBaan **meshkot** daa-naazhaabiighige-w]<sub>FC</sub>;  
**perhaps then** and Bon **instead** MODAL-VAI:play.violin-3:IND  
 [gaawii memkaach nJaan daa-mdwewechge-sii-w]<sub>SC</sub>.  
 not necessarily John MODAL-VAI:play.instrument-NEG:IND-3:IND  
 Maybe Bon should play violin instead of John playing guitar. (MC)

In the following the dispreferred alternative is given in a clause introduced with *pii dash* ‘than’, and the verb is in the conjunct with an irrealis preverb, *da-*, and preterit aspectual mode, used in an irrealis function. The FC is introduced with the comparative adverb *washme* ‘more’. The order of clauses here cannot be reversed.

- (44) [washme daa-nishin-w mBaan naazhaabiighige-d]<sub>FC</sub>  
 more MODAL-VII:be.nice-0:IND Bon VAI:play.violin-3:CNJ  
 [pii **dash** nJaan **da**-mdwewechge-d-ba]<sub>SC</sub>,  
**than** John IRR-VAI:play.instrument-3:CNJ-PRET  
 nd-inendam niinii.  
 1:IND-VAI:think.so I.personally  
 I think it would be better for Bon to play violin than for John to play his guitar [at the upcoming cultural event]. (MC)



3.15. *Real Manner*

Manner is standardly expressed by means of the relative (relational) element /iN/, which occurs on the verb in the main clause, as either preverb or root. In (45), the verb *zhichge* contains /iN/ as root.

- (45) g-gii-zhichge                      na                      dash [iw  
 2:IND-PAST-VAI:do.so    yes/no.question    then    that:INAN  
 gaa-zhi-gkinoohmaw-inaan]?  
 IC + PAST-RR:thus-VTA:teach.O-1sg>2sg:CNJ  
 Did you do the way I taught you? (AM)

The syntactic relationship between these predicates is not one of linkage, as the pronoun *iw* ‘that (inan.)’ is functioning as the complement of the relative root /iN/ in *zhichge* ‘do such’, and the verb *gaa-zhi-gkinoohmoonaan* is relativized to this pronoun. In manner expressions having definite reference, though, a biclausal correlative construction (see, e.g., Rhodes 2000) is used with the relative element /iN/ in both clauses. This construction occurs twice in the following example.

- (46) [niswi [ezhinaagozi-d]<sub>SC</sub>                      gii-izhinaagozi-wag]<sub>FC</sub>;  
 three    IC + VAI:look.so-3:CNJ    PAST-VAI:look.so-3pl:IND  
 [niswi dash [aw                      animosh ezhinaagozi-d]<sub>SC</sub>  
 three    but    that:ANIM    dog                      IC + VAI:look.so-3:CNJ  
 gii-izhinaagozi-wag]<sub>FC</sub>.  
 PAST-VAI:look.so-3pl:IND  
 Three of them looked like she did, and three of them looked like the  
 dog. (AW)

The first half of (46) is literally expressed as ‘three of them looked such way as he looked such way’, and in these cases it is more difficult to not classify the correlatives as something akin to linkage, given that they are *mutual* complements of each other.

Another strategy for expressing manner uses *dbishkoo* ‘like’ in initial position in the FC, in conjunction with /iN/ in the verb of the SC (as above). The clause containing *dbishkoo* is almost always in the conjunct order, and the SC invariably precedes the FC. The following example has the verb *izhinaagwad* ‘look so, appear so’, with relative root /iN/, in the FC. Clause order cannot be reversed.

- (47) [Dibishkoo    miznaakide-g]<sub>SC</sub>                      [izhinaagwad-w]<sub>FC</sub>.  
 like                      VII:be.printed-o:CNJ    VII:look.so-o:IND  
 It looked as if there were printing on it. (AW)

3.16. *Counterfactual*

One way to express a counterfactual is via a clause introduced by *wendgo* ‘as if’, with the verb of the clause inflected with a modal preverb complex, *daa-gii-*. Somewhat surprisingly, the verb of the SC is in the independent order.

- (48) [gchi-wiisni-w nJohn]<sub>FC</sub>, [wendgo ngo-giizis  
much-VAI:eat-3:IND as.if one-month  
gaawii daa-gii-wiisni-sii-w]<sub>SC</sub>.  
not MODAL-PAST/POT-VAI:eat-NEG:IND-3:IND  
John keeps eating, as if he hadn’t eaten in a month. (MC)

If the order of clauses is reversed, the SC is made the complement of an explicit manner element *zhi-* ‘like’, added to the verb of the FC, which shows conjunct order and initial change.

The adverb *dbishkoo* ‘like, as if’ can be used in the same way as *wendgo*, with identical morphosyntax in its clause. The examples I have of this type are elicited, and consistently show the verb in the FC inflected for what appears to be the iterative mode, and with impersonal subjects, i.e., which would translate as ‘(as) whenever one...’. The order of clauses is fixed, at least with the impersonal construction.

- (49) [zyegzi-ng-i gii-zhayaa-w]<sub>FC</sub>,  
IC + VAI:be.frightened-X:CNJ-ITER PAST-VAI:be.SO-3:IND  
[dbishkoo go naa o-daa-gii-waabm-aan  
as.if EMPH 3:IND-MODAL-PAST/POT-VTA:see.O-3sg>3.OBV:IND  
jiibay-an]<sub>SC</sub>.  
ghost-ANIM.OBV  
He was like someone frightened, as if he’d seen a ghost. (MC)

- (50) [gdaagmandan-n]<sub>FC</sub>; [wendgwenh  
VTI:taste.liquid.O-2sg>0:IMP whether  
da-mno-piitaagmi-g]<sub>SC</sub>.  
IRR-good-VII:liquid.has.such.strength-O:CNJ  
Taste it; [to see] whether it’s the right strength. (MC)

Dubitative-alternative constructions have a predicative dubitative adverb, to which is subordinated the clause expressing the alternative in doubt. The verb of this clause is inflected for dubitative mode. While the SC can occur before *endgwen*, it is stylistically very marked.

- (51) endgwen [o-wiidgemaagn-an enkii-n’g-wen]<sub>SC</sub>.  
(I).wonder.whether 3:IND-spouse-OBV IC + VAI:work-3.OBV:CNJ-DUB:CNJ  
I wonder whether his wife works. (AM)

#### 4. Summary

Although I have written extensively on Ojibwe, e.g., Valentine (2001), I discovered many new facts about the language in the course of this research. Semantic relations of clause linkage are typically quite overtly marked in Ojibwe, by means of preverbs, such as *shkwaa-* 'after', or free adverbs, e.g., *giishpin* 'if'. Relational elements figure prominently, used in relative time expressions, cause, and manner, perhaps in all cases due to semantic extension of more fundamentally locative meanings. Second position clitics, especially *dash* 'then, contrast', are prominent in many relations. Most surprising for me is the amount of positional restriction that holds for many markers of clause relations. While Ojibwe constituent order is generally described as quite free, it is apparent that additional research into the distributional restrictions of many of the elements discussed in this chapter will allow me to more precisely articulate clausal and inter-clausal syntax.

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# The Semantics of Clause Linking in Boumaa Fijian

R. M. W. DIXON

Clause linking in Fijian is achieved by a number of quite different techniques, at various places within the grammar.<sup>1</sup> This chapter builds up an outline of the grammar, dealing with each method of clause linking at the place where it occurs. §9 then integrates the varied techniques; see Table 2 in §3.

## 1. Background

There are two indigenous languages in the Fiji Islands, one in the east and another in the west. Today's Standard Fijian is often called Baun, although it is not exactly the same as the dialect of the eastern language spoken in the island of Bau. There are in all around half a million speakers of the eastern language.

My fieldwork has concerned another dialect of the eastern language, that spoken in the Vanua (social confederation) of Boumaa, on the island of Taveuni. It is mutually intelligible with Standard Fijian, sharing about 90 per cent of vocabulary and a high proportion of grammar, although there are a few important points of grammatical difference (including the forms of demonstratives, and of the passive ending on verbs), none relevant to the discussion in this chapter. I spent six months in 1985 (with short follow-up visits in 1986, 1989, and 2006) in Waitabu, a village of about 100 people within the Boumaa Vanua. In the 1980s, all but a handful of villagers were monolingual in Fijian. My corpus consists of an array of texts plus much information gathered by participant observation, augmented by judicious elicitation within Fijian (see Dixon 1988: 1–7).

<sup>1</sup> I owe a great debt to Josefa Cokanacagi for his unstinting help in teaching me the Boumaa dialect of Fijian, in helping to transcribe and analyze texts, and in elucidating tricky grammatical points. Alexandra Aikhenvald provided invaluable ideas, both when reading a draft of the chapter in Melbourne, and during fieldwork in Waitabu village in 2006. David Arms and Paul Geraghty gave welcome feedback on a draft.

There is a system of five vowels (*i, e, a, o, u*) with contrastive length, shown here by doubling the letter. Every long vowel and diphthong counts as two moras; stress goes on the syllable which includes the penultimate mora of a word. There are twenty consonant phonemes; orthographic symbols represent IPA values save for *b* /<sup>m</sup>b/, *d* /<sup>n</sup>d/, *q* /<sup>ŋ</sup>g/, *dr* [nr], *v* /β/, *c* /ð/, *g* /ŋ/, *y* /j/, and ' /ʔ/ (see Dixon 1988: 12–15). In the examples below ' indicates a clause boundary.

## 2. Structure of a main clause

The predicate is the only obligatory constituent of a clause. It includes information about core arguments, and can make up a complete sentence.

The great majority of verbs are ambitransitive. They may be used in an intransitive clause, with no suffix, or in transitive function, with a transitive suffix. In my corpus, about 53 per cent of ambitransitive verbs are of S = A type—for example, *bera* 'be late', *bera-ca* 'be late for (something)'—with the remainder being of S = O type—for example *lo'i* 'be bent', *lo'i-a* 'bend (something)'. A sizeable number of verbs may take either of two transitive endings, with difference of meaning; for example *vana-a* 'shoot (O is target)' and *vana-ta'ina* 'shoot (O is gun)'. For fuller details, see Dixon (1988: 45–6, 200–19).

The possibilities for what can be predicate head are:

- In an intransitive clause—any intransitive verb (a verb with no suffix), or any adjective, noun—as in (22c)—NP or pronoun (see Dixon 1988: 63–8).
- In a transitive clause—any verb with a transitive suffix.

Transitive suffixes have the form *-(C)i* or *-Ca'ini*, where *C* can be one of a range of consonants; which suffix(es) a given verb root takes cannot properly be predicted, and must be learnt. The form with final *i* is used if the O argument is other than 3sg—in which case the appropriate pronoun follows the transitive suffix, as in (1)—or if it is a personal or place name—in which case this name follows the transitive suffix, as in (2).

- |     |      |         |       |           |     |      |         |       |           |
|-----|------|---------|-------|-----------|-----|------|---------|-------|-----------|
| (1) | [Au  | rogo-ci | ira]  | PREDICATE | (2) | [Au  | rogo-ci | Jone] | PREDICATE |
|     | 1sgA | hear-TR | 3plO  |           |     | 1sgA | hear-TR | John  |           |
|     | I    | hear    | them. |           |     | I    | hear    | John. |           |

If the O argument is 3sg (and not a personal or place name), then the final *i* of the transitive suffix is replaced by *a*:

- (3) [Au rogo-ca]<sub>PREDICATE</sub>  
 1sgA hear-TR + 3sgO  
 I hear him/her/it.

The *a*-final form is the functionally unmarked one, and is used for citation—speakers will say that ‘hear (something)’ is *rogo-ca*. (A suffix such as *-ca* will below be glossed ‘TR’ as an abbreviation for ‘TR + 3sgO’.)

Basically, the predicate is in clause-initial position and may optionally be followed by NPs, in core functions—S for an intransitive, and A and/or O for a transitive clause—and/or in peripheral function. Core NPs bear no marking of their function and can occur in either order. Consider a transitive clause with two core NPs.

- (4) [E rogo-ca]<sub>PREDICATE</sub> [a qase] [a gone]  
 3sgA hear-TR ART elder ART child

This could mean either ‘The elder heard the child’ or ‘The child heard the elder’; it would be disambiguated by context. If only one core NP is stated, as in [E *rogo-ca*]<sub>PREDICATE</sub> [a *gone*], it could be in either A or O function; the sentence could mean either ‘The child heard him/her/it’ or ‘He/she heard the child’.

Each NP begins with what is called (within the Fijian grammatical tradition) an ‘article’. This is *a* (or *na* after a preposition) if the NP has a common noun as head, and *o* if it has as head a proper noun or pronoun. A peripheral NP is marked by a preposition, the two main ones being *i* ‘to, at’ and *mai* ‘from’. A peripheral NP comes after the predicate—before, between, or after the core NP(s). For example, one could say either:

- (5) [E tagi]<sub>PREDICATE</sub> [a gone]<sub>S</sub> [i na sitoa]<sub>PERIPHERAL</sub>  
 3sgS cry ART child IN ART store  
 The child is crying in the store.

or, with exactly the same meaning:

- (5') [E tagi]<sub>PREDICATE</sub> [i na sitoa]<sub>PERIPHERAL</sub> [a gone]<sub>S</sub>

### 2.1. *Fronting*

Any core or peripheral NP may be topicalized and placed before the predicate, in apposition to it (shown here by a comma)—it is said to be ‘fronted’. A fronted constituent may show a slight fall in pitch just before the stressed syllable and then rising pitch over the stressed syllable (and a following syllable, if there is one); there is sometimes the impression of a slight pause between a fronted

constituent and the predicate which follows. (It is possible, but unusual, to front more than one NP within a clause; see Dixon 1988: 245–51.)

If a core NP is fronted, there remains a statement of its person and number within the predicate. Thus, if [*a gone*] is fronted from (5), the 3sg subject pronoun *e* is retained in the predicate:

- (6) [A gone]<sub>S</sub>, [e tagi]<sub>PREDICATE</sub> [i na sitoa]<sub>PERIPHERAL</sub>  
*The child*, it is crying in the store.

If a peripheral NP is fronted then '*ina*' is included towards the end of the predicate, as a mark of this. Fronting [*i na sitoa*] from (5) gives:

- (7) [(I) na sitoa]<sub>PERIPHERAL</sub>, [e tagi 'ina]<sub>PREDICATE</sub> [a gone]<sub>S</sub>  
*In the store*, the child is crying there.

When a peripheral NP is fronted, its preposition may be retained or omitted; whichever of these alternatives is followed, '*ina*' should be included in the predicate as an indication that the fronted NP is in peripheral function.

## 2.2. Relators

There is a set of relators which may (a) mark a type of complement clause (a clause which functions as a core argument within a higher clause); and/or (b)

TABLE 1. Relators, and their main functions

| RELATOR                         | MARKER OF COMPLEMENT<br>CLAUSE TYPE  | MARKER OF<br>CLAUSE LINKING   | OTHER FUNCTION(S)                                  |
|---------------------------------|--|---|--|
| <i>ni</i>                       | 'that' (functionally unmarked variety)   | marking 'when' and 'because' subordinate clauses; and with time expressions | —  |
| <i>se</i>                       | interrogative complement clauses, both polar type ('whether') and those with a content interrogative (e.g. <i>cava</i> 'what') | 'or'  | also disjunction of nouns, verbs, adjectives, etc. |
| <i>dee</i>                      | 'that might' (uncertain meaning)   | 'in case'   | —  |
| <i>'eeva'aa</i><br>~ <i>'ee</i> | —  | 'if'  | —  |
| <i>ia</i>                       | —  | 'well, then, but'   | —  |
| <i>me</i>                       | 'to' (purposive type)  | 'in order to'   | marks imperatives and 'should' (obligation)        |



mark a variety of clause linking; and/or (c) have some other function(s) in the grammar. The relators are set out in Table 1, with their main functions.

The placement of relators is intriguing. With minor exceptions, *ia* 'well, then, but' occurs at the very beginning of its clause. *Ni*, *se*, *dee*, and *'eevd'aa* (~'ee) generally occur clause initially; if an NP is fronted it will follow one of these relators. For example:

- (8) (a) 'Eeva'aa [a tuuraga.bete]<sub>S</sub> [e na la'o  
 IF ART priest 3sgS FUT go  
 mai]<sub>PREDICATE</sub> [ni saubogi],  
 HERE AT tomorrow  
 (b) [e na ca'a-misa]<sub>PREDICATE</sub>  
 3sgS FUT do-mass  
 If *the priest*, he comes tomorrow, he'll celebrate mass.

Here the S NP, [*a tuuraga.bete*], is fronted to precede the predicate, but it follows relator *'eevd'aa*. If *ia* occurs with one of the other relators, then *ia* will come first.

Relator *me* is somewhat different—it always comes immediately before the predicate, after any fronted NP. For example:

- (9) [Au va'a.nanu-ma ti'o]<sub>PREDICATE</sub> [se [o cei]<sub>A</sub> me  
 1sgA think.of-TR CONTINUOUS THAT ART who SHOULD  
 [na ca'a-va]<sub>PREDICATE</sub> [a ca'a.ca'a yai]<sub>O</sub>]<sub>COMPL.CL:O</sub>  
 FUT do-TR ART work THIS  
 I am thinking about who should do this work.

The O argument of the verb *va'a.nanu-ma* is here a complement clause which includes relators *se* and *me*; the A NP, [*o cei*], is fronted within the complement clause, coming after *se* and before *me*.

In summary, the structure of a (main or subordinate) clause is:

| RELATOR   | RELATOR   | FRONTED NP              | RELATOR   | PREDICATE | NPs                         |
|-----------|---|-------------------------|-----------|-----------|-----------------------------|
| <i>ia</i> | <i>ni</i> , <i>se</i> , <i>dee</i> or<br><i>'eevd'aa</i> ~ <i>'ee</i> | (core or<br>peripheral) | <i>me</i> |           | (core and/or<br>peripheral) |
| 1         | 2   | 3                       | 4         | 5         | 6                           |

There are restrictions on possible combinations—for example, we can get 2 3, or 2 4, or 2 3 4, but not 3 4. Note that when *ni* occurs in slot 2 and *me* in slot 4, the sequence *ni me* reduces to be just *me* (Dixon 1988: 289–93). The role of relators in clause linking is discussed in §7.

### 2.3. Clause types

There are a number of varieties of non-main or subordinate clauses:

- (i) A clausal NP, which has the superficial structure of an NP but the content and function of a clause; this is discussed in §6.
- (ii) A complement clause marked by a relator, as set out in Table 1.
- (iii) A subordinate clause (which fills a peripheral slot within a main clause) marked by *ni* ‘when/because’. See §4.2.
- (iv) A clause introduced by a linker: *’eeva’aa* ~ *’ee* ‘if’, *dee* ‘that might’, *ia* ‘well, then, but’, *me* ‘in order to’ or *se* ‘or’. See §7.
- (v) A relative clause (see Dixon 1988: 251–5); this is not relevant for the present discussion.

Types (ii)–(v) have the same structural possibilities as a main clause, prefaced—for types (ii)–(iv)—by a marker of the clause type.

### 3. Predicate structure

The predicate has the following structural slots, from left to right (items in bold may function as markers of clause linking):

- (a) Pronominal subject (S or A function). Note that 3sg *e* is omitted in various circumstances, including before aspect markers *sa* and *saa* and after most relators (otherwise it is obligatory).
- (b) Tense-aspect markers: *aa* ‘past’, *na* ‘future’, *saa* ‘contrasting this moment with a previous one’, *sa* ‘contrasting this moment with a later one’ or ‘continuation of an earlier action or state’. This slot may be left empty; tense is often marked only once in a narrative, on an early clause.
- (c) Discourse markers: *qei* ‘and then’, *mani* ‘so, consequently’. These are discussed in §3.1.
- (d) Pre-head modifiers. One (or occasionally more) from a set of about a dozen modifiers, including *mai* ‘come and’ (§3.1), *viavia* ‘act like, try to be, imagine oneself to be’.
- (e) Head. If the clause is transitive, the head will be a verb with a transitive suffix. The suffix must either end in *a* (indicating 3sg O) or in *i*, in which case it must be followed by a pronoun or personal or place name as O, as in (1–2).
- (f) Adverb (either here or in slot (k), very seldom in both).
- (g) Post-head modifier. Up to four or five (conceivably more) may be chosen from a set of about two dozen modifiers, organized in eleven

slots. They include *oti* ‘completed’ (§3.1), *rawa* ‘be able to, already’, *tĩo* ‘continuous’, *mada* ‘if you please’, *gaa* ‘particularly, only, just, still’, and *be’a* ‘perhaps’.

- (h) Marker *ina*, which indicates that a peripheral NP has been fronted.
- (j) Demonstrative.
- (k) Adverb (either here or in slot (f), very seldom in both).

Note that only slots (a) and (e) are obligatory.

Table 2 summarizes the various grammatical devices used to show clause linkage in Fijian. These will now be discussed one at a time. (MC indicates main clause and ‘;’ apposition between clauses in the table.)<sup>2</sup>

### 3.1. *Predicate modifiers as clause linkers*

A number of modifiers within the predicate may play a role in indicating clause linking—*qei* and *mani* from slot C, *mai* from slot D, and *oti* from slot G.

(a) *Qei* ‘and then’ or ‘the next thing was’ is extremely common in all styles of speech. It occurs in the Focal clause of a Temporal succession linkage (Is in Table 1 of Chapter 1), indicating that the event described by this clause follows in sequence after that of the clause which precedes (the Supporting clause). For example:

<sup>2</sup> More than half the examples quoted in this chapter come from one text, the Bird Princess story (told by Falavia Matavesi in the village of Orovou, lasting 8½ minutes). Although recorded in 24 June 1985, this was not transcribed and analyzed until 1989, and is thus additional to the corpus on which Dixon (1988) is based. It may be useful to briefly outline the main points of this tale, showing how the quoted examples relate to it.

The King and Queen of Waini’ele lived together, and she got pregnant (example 11). While she was pregnant, a varavara tree (a type of coconut) grew in the forest at the back of their house (14). The Queen gave birth and the child, which was a bird, flew onto a high branch of this tree (19). The Bird Princess had a melodious voice which could be heard from afar. The Prince of Natewa came to ask for her hand in marriage. The King said that if he could climb high enough to reach her, he could take her as his wife (27). But he couldn’t, so came down and went home (28). Then the Prince of Qamea went to see the King, received the same advice, tried and also failed (30). The third suitor was the Prince of Ca’aundrove. The King told him that if he could climb high enough, he could take the Bird Princess away as his wife, but if not he would get nothing (22–3). He told his retinue to sing below as he climbed (12), and did succeed.

The Bird Princess lived on a roof beam of the Prince of Ca’aundrove’s house and became great friends with his sister. But one day, a former lover of the Prince, consumed with jealousy, hit and killed the Bird. Her sister-in-law had been asleep and when she woke she found the dead bird lying there (10). But the Princess had, on being killed in her bird state, become a beautiful woman. At first she hid from the Prince and his sister who cried all day, consumed with grief. Then the Princess’s grandmother came and told her not to be so cruel, to wake the two of them (25) and reveal herself. The Princess cooked a meal, spread out an eating mat (13) and bade the two of them to wake, so they could all eat together (26). Then she told them that, when the bird was beaten and died, she emerged as a person (31–2).

But the murderess, who had killed the bird, had to be found and punished. Eventually, she was discovered and the King told her father that retribution awaited (24). By olden-times Fijian custom, the miscreant was cooked in an earth oven, and eaten (33).

TABLE 2. Summary of major clause linking constructions in Boumaa Fijian

|                           | §      |                | SUPPORTING CLAUSE                    | FOCAL CLAUSE        | ORDERING                               |
|---------------------------|--------|----------------|--------------------------------------|---------------------|--|
| Is, Temporal succession   | 3.1(a) | ‘and then’     | MC                                   | <i>qei</i> in MC    | SC first                               |
|                           | 8(a)   | ‘and then’     | MC, in apposition with               | MC                  | SC first                               |
| Ir, Relative time         | 3.1(c) | ‘following on’ | MC                                   | <i>mai</i> in MC    | SC first                               |
|                           | 3.1(d) | ‘after’        | <i>oti</i> in MC                     | MC                  | SC first                               |
|                           | 8(a)   | ‘when’/‘while’ | MC, in apposition with               | MC                  | SC first                               |
|                           | 4.1    | ‘when’/‘while’ | <i>i na gauna</i> fronted—           | within MC           | SC first                               |
|                           | 4.2    | ‘when’         | <i>ni</i> + peripheral clause—       | in MC               | either order                           |
|                           | 6      | ‘after’        | clausal NP                           | MC                  | SC first                               |
| Ic, Conditional           | 7(c)   | ‘if’           | <i>'eevā aa</i> ~ <i>'ee</i> clause, | MC                  | either order                           |
| IIc, Cause                | 4.2    | ‘because’      | <i>ni</i> + peripheral clause—       | in MC               | either order                           |
|                           | 5      |                | <i>baleta ni</i> clause              | MC                  | either order                           |
| IIr, Result               | 3.1(b) | ‘consequently’ | MC                                   | <i>mani</i> in MC   | SC first                               |
|                           | 8(b)   | ‘consequently’ | MC, in apposition with               | MC                  | SC first                               |
|                           | 7(d)   | ‘then, well’   | MC                                   | <i>ia</i> before MC | SC first                               |
| IIp, Purpose              | 7(e)   | ‘in order to’  | MC                                   | <i>me</i> clause    | SC first                               |
|                           | 7(f)   |                | MC (same subject)                    | <i>i</i> clause     | SC first                               |
| III, Possible consequence | 7(b)   | ‘in case’      | <i>dee</i> clause                    | MC                  | either order, but<br>FC preferred last |
| IVu, Unordered addition   | 8(c)   | ‘and’          | MC, in apposition with               | MC                  | SC first                               |
| IVs, Same-event addition  | 8(c)   | ‘and’          | MC, in apposition with               | MC                  | SC first                               |
| IVe, Elaboration          | 8(c)   | ‘and’          | MC, in apposition with               | MC                  | SC first                               |
| IVc, Contrast             | 7(d)   | ‘but’          | MC                                   | <i>ia</i> before MC | SC first                               |

Notes: Plus Vd, Disjunction: MC *se* MC (No Supporting/Focal distinction), §7(a).

- (10) (a) [Au moce tuu gaa]<sub>PREDICATE</sub>,  
1sgS sleep FULLY JUST  
(b) [saa lau-motu]<sub>PREDICATE</sub> [o 'ea]<sub>S</sub>,  
ASPECT passive-hit ART 3sg  
(c) [au qei yadra mai]<sub>PREDICATE</sub>,  
1sgS THEN wake.up HERE  
(d) [saa 'oto noo]<sub>PREDICATE</sub> [i raa yaa]<sub>PERIPHERAL</sub>  
ASPECT be.lying.down ASPECT AT down THERE  
(While) I was fast asleep, she was hit (and killed), then (when) I woke up here, she was lying on the ground there.

See also (19b) and (33c–d).

(b) *Mani* ‘in consequence’ also occurs in a Focal clause, one that describes some significant high-spot of a narrative, generally a Result (IIr) of what is reported in the preceding Supporting clause(s). For example:

- (11) (a) [I na gauna]<sub>PERIPHERAL</sub> [erau saa ti'o 'ina]<sub>PREDICATE</sub>  
AT ART time 3duS ASPECT reside PERI.FR  
[o Tui Waini'eli 'ei na wati-na]<sub>S</sub>,  
ART King Waini'eli WITH ART spouse-3sgPOSSESSOR  
(b) [saa mani bu'ete]<sub>PREDICATE</sub> [a wati-na]<sub>S</sub>  
ASPECT CONSEQUENTLY be.pregnant ART spouse-3sgPOSSESSOR  
While (lit. during the time that) the King of Waini'eli and his wife were residing (there), consequently, the wife got pregnant.

An interesting feature of this instance of clause linkage is that there is a marker *i na gauna* (see §4.1) in the Supporting clause and also a marker *mani* in the Focal clause.

*Qei* and *mani* may co-occur (in this order, in my corpus); an example is T6.105 in Dixon (1988: 347).

(c) There are two sets of locational modifiers, with related meanings. One set precedes the head and the other follows it:

| PRE-HEAD              | POST-HEAD (adverb-like function) |
|-----------------------|----------------------------------|
| <i>mai</i> ‘come and’ | <i>mai</i> ‘(to) here’           |
| <i>la'i</i> ‘go and’  | <i>yane</i> ‘(to) there’         |

A full description is in Dixon (1988: 82–8). In addition to indicating direction, pre-head modifier *mai* may also function as a marker of clause linking—the Focal clause (with *mai*) describes an activity which follows on from that described in a Supporting clause, as a natural step in an expected sequence of events. It thus marks Temporal succession (Is). For example:

- (12) (a) [Oti                    yaa]<sub>PREDICATE,</sub>  
           **be.completed**    THERE  
       (b) [saa                **mai**                'aba    yane]<sub>PREDICATE</sub>  
           ASPECT            COME                climb    TO.THERE  
       (He said that he would climb the tree to claim the Bird Princess, and told his retinue to sing below the tree.) **After** that (when his speech was completed); **as a following activity** he climbed up there.

At first sight, (12) includes modifiers with non-compatible meanings, pre-head *mai* 'come and' plus post-head *yane* '(to) there'. But in fact, only *yane* has locational reference here, *mai* functioning as a clause linker. This is another instance of clause linkage with a marker in each clause—*oti* in the Supporting clause and *mai* in the Focal clause.

(d) *Oti* 'completed' or 'already' is a post-head modifier in predicate slot G. It occurs within the Supporting clause of a Relative time linkage (Ir), as in:

- (13) (a) [E            va'a-buta-ra    **oti**                yaa]<sub>PREDICATE,</sub>  
           3sgA        MAKE-COOK-TR    **COMPLETED**    THERE  
       (b) [saa        **tevu**]<sub>PREDICATE</sub>    [a                loga]<sub>s</sub>  
           ASPECT    be.spread.out    ART                mat  
       (She cooked the meal); **after** the cooking (of the meal) **was completed**; the (eating) mat was spread out.

*Oti* also functions as a lexical verb with similar meaning 'be completed, be over', and a Supporting clause may have this as predicate head (we thus get a lexeme as a marker of clause linkage). This is exemplified by *oti yaa* in (12). (For further discussion and examples see Dixon 1988: 81–2.)

A sentence in English such as *He acts as if he were clever* could be translated into Fijian by *E viavia-vu'u*, with the prefix *viavia-* 'act like, try to be, imagine oneself to be' attached to predicate head *vu'u* 'be clever'. Here a single clause may correspond to a Hypothetical Manner (VIh) clause linkage construction in other languages. (Real Manner is discussed in §9.)

#### 4. Peripheral constituents and clause linking

There are two constructions involving peripheral constituents of a clause which may mark a linkage—one in which a peripheral NP is fronted, and the other involving a peripheral clause.

##### 4.1. *Fronted peripheral NP i na gauna* 'at the time'

The common noun *gauna* 'time' may appear in a peripheral NP *i na gauna* 'at the time'. When this is fronted, its clause has the meaning 'at the time that' or

‘when’ as the Supporting clause of a Relative time linkage (Ir). There is an example at (33b). Future tense form *na* can be included in the predicate, then giving ‘when X will be happening, Y (will) happen’, as in (25).

Note that *’ina* is included in slot (h) of the predicate, showing that a peripheral NP has been fronted, thus providing justification for this analysis (in preference to a relative clause analysis).

If the predicate involves post-head modifier *ti’o* ‘continuous’, the meaning of the Supporting clause is ‘during the time that’ or ‘while’, as in (11), and in the sentence which follows (11) in its text:

- (14) (a) [I na gauna]<sub>PERIPHERAL</sub> [e bu’ete  
 AT ART time 3sgS be.pregnant  
 ti’o ’ina]<sub>PREDICATE</sub> [a wati-na]<sub>S</sub>;  
 CONTINUOUS PERI.FR ART spouse-3sgPOSSESSOR  
 (b) [e tubu to’a]<sub>PREDICATE</sub>... [e dua a vuu ni  
 3sg grow ASPECT 3sg one ART trunk ASSOCIATED  
 varavara]<sub>S</sub>  
 varavara

**While (during the time that)** his wife was pregnant, a varavara tree (lit. one trunk of varavara) grew (in the forest by their house).

‘A varavara tree grew’ is here the Focal clause.

#### 4.2. *Peripheral clauses with ni*

Relator *ni* may mark a complement clause—as in ‘I heard [*ni* (that) they had won]’. It has a preposition-like function with time words referring to the future, as *ni saubogi* ‘(at) tomorrow’ in (8). (The general preposition *i* is often used with time words referring to the past, as *i nanao* ‘(at) yesterday’.)

*Ni* has a further and most important role. It marks a subordinate clause (which has the same structural possibilities as a main clause, but is preceded by *ni*) with the meaning ‘when’ (Relative time linkage, Ir) or ‘because’ (Cause linkage, Ilc). This effectively fills a peripheral slot (the same slot as a peripheral NP) in clause structure. One example comes from a treatise on gardening:

- (15) [Ni [’eli oti]<sub>PREDICATE</sub> [a uvi]<sub>S</sub>]<sub>PERIPHERAL</sub>...,  
 WHEN be.dug.up COMPLETED ART yam  
 [saa tei]<sub>PREDICATE</sub> [a ’umala]<sub>S</sub>  
 ASPECT be.planted ART sweet.potato  
 When yams are dug up (in the months of December, January, and February), sweet potatoes are planted.

The inclusion of post-head predicate marker *oti* ‘completed’ (§3.1) in the *ni* peripheral clause situates the event of the Supporting clause as prior to that described in the Focal clause.

A further example of a *ni* subordinate clause comes from an account of the ceremonies associated with the arrival by boat of a high chief:

- (16) [Saa luva]<sub>PREDICATE</sub> [a tawa’e]<sub>S</sub> [ni  
 ASPECT be.removed ART flag WHEN/BECAUSE  
 [saa cabe bula mai]<sub>PREDICATE</sub> [a tuuraga]<sub>S</sub>]<sub>PERI</sub>  
 ASPECT come.ashore be.alive HERE ART chief  
 The flag is pulled down when/because the chief has safely come ashore  
 (lit., has come ashore alive).

The meaning of a *ni* peripheral clause is sometimes clearly ‘because’, sometimes clearly ‘when’—as in (15). In other instances either reading, or both, may be applicable, as in (16). (For further discussion and examples, see Dixon 1988: 244–5.)

Like peripheral NPs, a *ni* peripheral clause generally follows the predicate, as in (16). But, also like peripheral NPs, it can be fronted, as in (15). When it is fronted, *’ina* (see §2.1) is included in the predicate for about one-third of textual instances; note that it is not used in (15). In the corpus, it seems that a *ni* clause with the temporal meaning ‘when’ is more likely to be fronted than one with the consequence meaning ‘because’.

There are a number of properties which distinguish a *ni* ‘when/because’ clause, in peripheral function within a main clause, from a *ni* complement clause, which fills a core slot within the main clause. One is that an NP can be fronted within any type of complement clause—as in (9)—whereas no fronting is encountered in a *ni* ‘when/because’ clause. Another is that a *ni* ‘when/because’ clause can itself be fronted within its main clause—as in (15)—whereas a complement clause cannot be.

The high-flown idiomatic combination *i na vu’u ni* (which is *e na vuku ni* in Standard Fijian) has function similar to a preposition, with the meaning ‘for the sake of, because of, concerning’; it may be followed by an NP (or a clausal NP), as in *i na vu’u ni cava* ‘for the sake of what? (that is, why?)’ and *i na vu’u ni [ona loloma]* ‘for the sake of his/her love’. Churchward (1941: 79) remarks: ‘European speakers of the language—as witnessed by the Fijian Bible and some other printed texts—sometimes use this expression [*e na vuku ni*] as a conjunction, meaning “because”. But this is not correct; it is contrary to native usage, and natives condemn it.’ He provides examples of the erroneous usage, and states that *ni* should be used in place of *e na vuku ni* for clause linkage.



### 5. Clause linker *baleta ni* ‘because of’

There is a verb *bale-ta* ‘caused by’ which appears to have been grammaticized in two distinct ways. It is developing into a preposition *baleta* ~ *baleti* ‘concerning’. And, relevant to the present discussion, it has given rise to a marker of Cause linkage (IIc) *baleta ni* ‘because’. For example:

- (17) (a) Au   vina’a-ta   [me       [ra   va’a-macala-ta’ina]<sub>PREDICATE</sub>  
           1sgA   want-TR   SHOULD   3plA   CAUSE-be.clear-TR  
           [a   ituva.tuva       ni               vei.qaravi]<sub>O</sub>   [o   ira  
           ART   organization   ASSOCIATED   presentations   ART   3pl  
           a   qase ca’e]<sub>A</sub>]<sub>COMPL.CL:O</sub>  
           ART   elder high  
       (b) **baleta.ni** [ira   ’ila-a       vina’a   ca’e]<sub>PREDICATE</sub>  
               BECAUSE   3plA   know-TR   good   MORE  
               I want that high elders should explain (lit. make clear) the  
               organization of (traditional) presentations (to me) because they  
               know it better.

*Ni* after *baleta* may originally have been the marker of a ‘that’ complement clause but it appears now to be simply a part of a complex expression *baleta ni* ‘because’, which marks the Supporting clause of a Cause linkage. The *baleta ni* clause generally follows the Focal clause, as in (17), but it can come first.

It was mentioned that a *ni* peripheral clause can mean ‘when’ or ‘because’; *baleta ni* can only mean ‘because’. It is likely that this new clause linker developed, rather recently, to take some of the functional load off *ni* and lessen the possibility of ambiguity and confusion. (See Dixon 1988: 162–4.)

### 6. Clausal NPs in clause linkage

There are two varieties of complement clause in Fijian. One has the structure of a main clause, preceded by a relator *ni*, *se*, *dee*, or *me* (see Table 1). The other involves what can be called a ‘clausal NP’, somewhat similar to a POSS - ING complement clause in English (as in *I noticed Mary’s weeding the garden*). Corresponding to a clause such as:

- (18) (a) [E   tagi]<sub>PREDICATE</sub>   [a   gone]<sub>s</sub>  
           3sgS   cry               ART   child  
           The child cries.

we can get a clausal NP, in a core slot for a verb:

- (18) (b) [Au aa rai-ca]<sub>PREDICATE</sub>  
 1sgA PAST see-TR  
 [a o-na [tagi]<sub>PREDICATE</sub> [a gone]<sub>S</sub>]<sub>CLAUSAL.NP:O</sub>  
 ART CL-3sgPOSS cry ART child  
 I saw the child crying.

To form a clausal NP—such as *a o-na tagi a gone*—from an independent clause—such as *e tagi a gone*—one must: (i) include the common article *a* at the beginning; and (ii) substitute the appropriate pronominal possessor word for the pronominal subject marker (here 3sg *ona* for *e*). All else remains unchanged—tense/aspect, pre-head and post-head markers, etc. within the predicate. The independent clause may also include NPs in core and/or peripheral functions and these carry over into the clausal NP, as with the NP in S function here, *a gone*.

The major use of a clausal NP is to fill an S, O, or A core slot in a main clause, as in (18b); it then always comes at the end of the clause. There is a further function, of Relative time clause linkage (Ir). Basically, a clausal NP can appear before the main clause, not filling a core slot within the main clause but simply apposed to it. This indicates that the event referred to by the clausal NP happens before that of the main clause.

Following after (11) and (14) in the Bird Princess story we get:

- (19) (a) [A o-na [aa va'a.sucu gaa mai]<sub>PREDICATE</sub>  
 ART CL-3sgPOSS PAST give.birth JUST HERE  
 [o Radi ni Waini'eli]<sub>S</sub>]<sub>CLAUSAL NP...</sub>,  
 ART Queen ASSOCIATED Waini'eli  
 (b) [**qei** vu'a]<sub>PREDICATE</sub> [a luve-na]<sub>S</sub>,  
**THEN** fly ART child-3sgPOSS  
 (c) [la'i roo sara]<sub>PREDICATE</sub> [i na vuu ni  
 GO alight IMMEDIATELY ON ART trunk ASSOCIATED  
 varavara]<sub>PERI</sub>  
 varavara

After the Queen of Waini'eli having given birth here (in the space at the back of her house), **then** the child (who had the form of a bird) flew, and at once alighted on the varavara tree (which would then grow and grow).

The clausal NP, (a), is Supporting clause in a Temporal linkage. In this instance the following clause includes pre-head modifier *qei* as a further marker of the linkage, but this is found only rarely in the Focal clause after a clausal NP. There is another example of a clausal NP marking Temporal linkage in (33a).

There are superficial similarities with a reduced time adverbial clause in English. A clause commencing with *after having* may omit the *after*, as in

(After) *having eaten*, John washed his hands (Dixon 2005: 66, 66–7). A major difference is that the two clauses in English must have a shared subject, whereas this is not necessary in Fijian (in (19), clauses (a) and (b) show different subjects). There is not normally a marker of past time in a clausal NP. The fact of its being a clausal NP apposed to a main (focal) clause indicates that it refers to an event that happened prior to what is described in the main clause. Just occasionally, a clausal NP may include post-head modifier *oti* ‘completed’. (There is an example of this at T4.42 in Dixon 1988: 310.)

## 7. Relators as clause linkers

The clause following a relator has the full structural properties of a main clause.

(a) *Se* ‘or’ (Disjunction linkage, Vd). This relator can link verbs, adjectives, NPs, nouns (within an NP), or complement clauses, referring to open or closed disjunction. It may also link full clauses, as in:

- (20) (a) [O via bula]<sub>PREDICATE</sub>  
           2sgS WANT live  
       (b) se [(o) via mate]<sub>PREDICATE</sub>  
           OR 2sgS WANT die  
           Do you want to live or to die?

Note that the 2sg subject pronoun, *o*, may either be included in or omitted from the second clause (*via* could also be omitted). As in most languages, the clauses in an alternative (‘or’) linkage cannot be identified in terms of the Supporting clause/Focal clause division. In many ‘or’ constructions, the post-head modifier *be’a* ‘perhaps’ is included in the predicate; see Dixon (1988: 262).

(b) *Dee* ‘in case, lest, because ... might’ (Possible Consequence linkage, III). This relator comes at the beginning of a Supporting clause which may precede its Focal clause but generally follows it, as in:

- (21) (a) [Wili-’a tale mada]<sub>PREDICATE</sub>  
           COUNT-TR AGAIN PLEASE  
       (b) dee [cala]<sub>PREDICATE</sub> [a qou wili.wili]<sub>S</sub>  
           IN.CASE ERR ART CLASSIFIER + 1SG counting  
           Please count it again, in case my counting might have been in error.

The Focal clause is often an imperative (as here) or a negative imperative, but does not have to be. A *dee* clause typically refers to some unwelcome event; for example ‘they searched for us, *dee* (in case) we should be lost’ or ‘write your

letter, *dee* (lest) it miss the mail plane to Suva'. But it does not have to be, as in 'Please turn up that mat, *dee* (in case) your lost pen might be under it', describing an eventuality which would be most welcome.

(c) *'Eeva'aa* (with a shorter variant *'ee*, which is much less common than *'eeva'aa* in the Boumaa dialect), 'if' (Conditional linkage, IIa). This also introduces a Supporting clause.

The third suitor of the Bird Princess told her father that he would climb high enough up the tree to reach her. Her father, the King of Waini'eli, replied:

- (22) (a) *'Eeva'aa* [o 'aba-ta rawa gaa]<sub>PREDICATE</sub>,  
IF 2sgA climb-TR CAN JUST

- (b) [*'au-ta yane*]<sub>PREDICATE</sub>,  
take-TR TO.THERE

- (c) *me* [wati-mu]<sub>PREDICATE</sub>  
PURPOSE spouse-2sgPOSSESSOR

If you are able to climb it, take her away, so that she can be your wife.

- (23) (a) *'Eeva'aa* [e sega]<sub>PREDICATE</sub>,  
IF 3sgS BE.NOT.THE.CASE

- (b) *ia*, [sa na sega]<sub>PREDICATE</sub>  
THEN ASPECT FUTURE BE.NOT.THE.CASE

If you can't climb it, then there will be nothing for you (lit., if it is not the case (that you can climb it) well, then it will not be the case (that you take her off).

An *'eeva'aa* 'if' clause may either precede or follow its Focal clause. And, as shown in (8), an NP can be fronted within an *'eeva'aa* clause. (Further discussion, and examples, of *'eeva'aa*, *dee*, and *se* are in Dixon 1988: 259–63.) See also (27).

(d) *Ia* 'well, then, but' (Result, IIr, and Contrast, IVc, linkages). Unlike the three relators just discussed, *ia* introduces the Focal clause of a linkage—as in (23), where the Supporting clause is marked by *'eeva'aa*. *Ia* occurs at the beginning of a clause and typically has falling intonation (shown here by a comma), which sets it off from what follows, rather like an interjection such as *io* 'yes'. But, unlike interjections, it cannot make up a complete utterance on its own.

*Ia* often indicates that its clause describes an event that is the Result of what was recounted in preceding clauses, as in (23b) and:

- (24) (a) [E motu-'a]<sub>PREDICATE</sub> [a wati-na]<sub>O</sub>,  
3sgA beat-TR ART spouse-3sgPOSSESSOR  
(b) *ia*, [sa na yaco]<sub>PREDICATE</sub> [vuaa]<sub>PERIPHERAL</sub>  
WELL ASPECT FUTURE arrive FOR + 3sg

[ni'ua]<sub>PERIPHERAL</sub> [a 'e-na isau]<sub>S</sub>  
 now ART CLASSIFIER-3sgPOSSESSOR retribution  
 She beat (and killed) his wife, **well**, her retribution will arrive for her  
 now (the murderess is to be cooked and eaten).

*Ia* may also be used in the Focal clause of a Contrast linkage (IVc); for example 'they all ate, *ia* (but), the two lovers sat together' (this is T4.37–8 in Dixon 1988: 310).

*Ia* may have scope over a two-clause linkage, as in:

- (25) (a) *Ia*, [i na gauna]<sub>PERI</sub> [au sa na la'o  
 WELL, AT ART time 1sgS ASPECT FUTURE go  
 'ina]<sub>PREDICATE</sub>,  
 PERI.FR

- (b) [m-o va'a-yadra-ti rau]<sub>PREDICATE</sub>  
 SHOULD-3sgA MAKE-wake.up-TR 3duO

Well, when I will have gone, you should wake up the two of them!

Here *ia* relates to the complete sentence, this having a Supporting clause marked by *i na gauna* 'when', and a Focal clause (which is an imperative) marked by relator *me*.

(e) *Me* 'in order to, should' (Purpose linkage, IIp). As mentioned in §2.2, *me* differs from other relators in that it must appear immediately before the predicate. (Indeed, an alternative analysis might have it as an optional first element of the predicate.) It may introduce a purposive complement clause, as in (9) and in 'I want you *me* (to) sing'.

*Me* also introduces an imperative clause. When followed by 2sg subject pronoun *o*, *me* plus *o* becomes *mo*, as in (25b) and (27b). This *mo* may be omitted, as from (21a) and (22b).

And *me* is used to link clauses, as in:

- (26) (a) [Drau yadra mada]<sub>PREDICATE</sub>  
 2sgS wake.up PLEASE  
 (b) *me* [datou 'ana]<sub>PREDICATE</sub>  
 PURPOSIVE 1inc.paucal eat

You two wake up, **for** we three (lit. paucal inclusive) **to** eat (together).

The subjects of the Supporting clause and of the Focal clause (marked by *me*) can be the same, or they may be different, as in (26).

In (22), quoting the King of Waini'eli's admonition to the third suitor of the Bird Princess, the final clause consists of purposive clause linker *me* plus *wati-mu* 'your wife' which here functions as intransitive predicate. The King had spoken more concisely to the first suitor:

- (27) (a) 'Eeva'aa [o 'aba-ta rawa]<sub>PREDICATE</sub>,  
 IF 2sgA climb-TR CAN  
 (b) [mo 'au-ta]<sub>PREDICATE</sub>  
 PURPOSIVE + 2sgA take-TR

If you are able to climb (as high as the Bird Princess), you **should** take her off.

Whereas (22b–c) involves two clauses, *'au-ta yane* and *me wati-mu*, (27b) effectively collapses these into one clause, *me 'au-ta* 'you should take her off' (it is implied: to marry her). This shows the close association between *me* as a marker of purposive clause linkage, and as a marker of imperative. Indeed, an imperative could be regarded as the Focal clause of an implicit purposive linkage.

Typical linkages with the Focal clause marked by *me* are (33d–e) and:

- (28) (a) [E viro mai raa]<sub>PREDICATE</sub>,  
 3sgS return HERE DOWN  
 (b) **me** [la'o]<sub>PREDICATE</sub>  
 PURPOSE go

He returned down here (to the base of the tree), **to** go (back home).

In some languages the same linker may indicate both Purpose and Result. But *me* in Fijian is used solely for Purpose. Corresponding to the Cause linkage: 'I am healthy (*baleta*) *ni* ("because") I eat a lot' there can be a Purpose linkage 'I eat a lot *me* ("in order to") be healthy'. But corresponding to Cause linkage 'I am angry (*baleta*) *ni* ("because") I am hungry', one cannot say 'I am hungry \**me* ("as a result") I am angry'. It will be seen that an important feature of purposive clause linkage in Fijian is that the Supporting clause must describe a volitional activity performed in order that the state or event described by the Focal clause should follow.

It is not uncommon to encounter a string of clauses each linked to its predecessor with *me* (see Dixon 1988: 288).

(f) The very common form *i* is basically a preposition 'to, at' used with an NP, as in (5–7), (10d), (11), (14a), (19c), (25a), and (30a). But *i* may be used to link predicates that share the same subject (the subject is only stated once) in a Purpose linkage (Iip). For example:

- (29) (a) [Taru saa la'o mada]<sub>PREDICATE</sub>,  
 1inc.du ASPECT go PLEASE  
 (b) **i** [co-co'a]<sub>PREDICATE</sub>  
 TO REDUPLICATED-spear

If you please, let's you and I (dual inclusive) go, **to** do (fish) spearing.

## 8. Linkage by apposition

Very frequently, clauses are linked together just by apposition within the same intonation unit. A number of kinds of linkage are shown in this way:

(a) Temporal succession (Is) ‘and then’. This is illustrated in (19b–c) ‘the bird flew (and then) alighted on the varavara tree’, and in:

- (30) (a) [Curu]<sub>PREDICATE</sub> [i tuba]<sub>PERIPHERAL</sub> [o Raavouvou  
go.through TO outside ART prince  
ni Qamea]<sub>S</sub>,  
ASSOCIATED Qamea  
(b) [va’a-isulu]<sub>PREDICATE</sub>,  
MAKE-clothes  
(c) [saa ’aba]<sub>PREDICATE</sub>,  
ASPECT climb  
(d) [sega]<sub>PREDICATE</sub> [ni [yaco-va]<sub>PREDICATE</sub>  
BE.NOT.THE.CASE THAT reach-TR  
[[a veimaamaa] ni [vuu ni niu]  
ART half.way ASSOC trunk ASSOC coconut  
mayaa]<sub>O</sub>]<sub>COMPL.CL:S</sub>  
THAT

The Prince of Qamea went out (of the house), (and then) tucked up his clothes, (and then) climbed, (and then) did not reach (even) half-way up the trunk of the coconut tree.

Apposition may also show Relative time linkages (Ir) ‘while’ and ‘when’. These are illustrated in example (10). Clauses (10a–b) indicate ‘(While) I was fast asleep, she was hit (and killed)’ and (10c–d) are ‘Then (when) I woke up, she was lying on the ground there.’

(b) If two clauses are apposed, this may indicate that the event described by the second is the Result (IIr) of that referred to by the first. When a jealous rival beat the Bird Princess to death, she emerged as a woman. The Princess then said:

- (31) (a) [Saa motu]<sub>PREDICATE</sub>,  
ASPECT be.beaten  
(b) [saa mate]<sub>PREDICATE</sub> [o ’ea [a manumanu]]<sub>S</sub>,  
ASPECT die ART 3sg ART bird

The bird was beaten, (and consequently) died.

- (32) (a) [Au saa bula ti’o]<sub>PREDICATE</sub> [ni’ua]<sub>PERIPHERAL</sub>,  
1sgS ASPECT live CONTINUOUS now  
(b) [o yau] [a tamata]  
ART 1sg ART person

Now I am alive, I am a person.

Note that the Princess (now a human) uses third person to refer to herself as a bird, in (31), but first person in (32). The bird died, in (31b), as the result of being beaten, in (31a).

(c) The verbless clause in (32b)—a clause which consists just of two NPs—augments information provided in (32a), the two together saying ‘I live now as a person.’ This is the third kind of linkage shown by clauses in apposition—they describe different aspects of a single state or event (Same-event addition, IVs). Another example is ‘He arrived, he came’. Or the second clause can expand on the information provided by the first (Elaboration addition, IVe), as in ‘I came, I came for the Bird Princess’, and ‘the leaves were tightly closed, they pointed straight up’. Apposition may also be used for explanation, as in ‘A varavara tree grew in the forest, it was a small (type) of coconut tree.’ Unordered addition (IVu) is also shown simply by clausal apposition.

## 9. Summary

A summary of the varied grammatical devices used for clause linking in Boumaa Fijian is in Table 2. It will be seen that the table lacks a ‘before’ linkage; this is essentially missing from the Fijian repertoire. All one can do is employ the verb *liu-ta’ina* ‘precede’, and say ‘X, Y precedes’. (In similar fashion, another way of saying ‘after’ is through the verb *muri-a* ‘follow.’)

A couple of the types of clause linkage set out in Chapter 1 are achieved by other grammatical means in Fijian. For ‘instead of’ (Vr) and ‘rather than’ (Vs), the verb *sosomi-ta’ina* ‘replace’ is utilized. A translation of *Mary will sing instead of John dancing* is, literally, ‘Mary will sing as a replacement for John in dancing’. And the idea of Real Manner (IVr) can be expressed by the adjective *tautauvata* ‘the same’. For example, *I built the house in the way that my father taught me* may be translated by, literally: ‘My house-building is the same as the thing my father taught to me’ or as ‘I built the house in order to (me) be the same as a house of my father.’ And *I feel happy, as if I had won a lot of money* can be rendered by ‘I feel happy, the same as I have won a lot of money’. (Hyotheetical Manner was mentioned at the end of §3.1.)

Not infrequently, both the Supporting clause and the Focal clause may be marked. The sentences quoted in this chapter include a number of examples of this.

| example | SUPPORTING CLAUSE         | FOCAL CLAUSE                         |
|---------|---------------------------|--------------------------------------|
| (11)    | <i>i na gauna</i> ‘while’ | <i>mani</i> ‘consequently’           |
| (25)    | <i>i na gauna</i> ‘when’  | <i>me</i> ‘should’                   |
| (12)    | <i>oti</i> ‘completed’    | <i>mai</i> ‘as a following activity’ |
| (19)    | clausal NP                | <i>qei</i> ‘and then’                |



- (23) 'eeva'aa 'if'                      ia 'then'  
 (27) 'eeva'aa 'if'                      me 'should'

And there may be two linkers for a single clause. In (15) the Supporting clause includes both *ni* 'when' and *oti* 'completed'. At the end of §6 it was mentioned that a clausal NP as a Temporal linker may include *oti* 'completed'. We also find *me* 'in order to' and *qei* 'and then' co-occurring in a Focal clause.

Sixteen of the examples presented thus far in the chapter have come from the grammatically rich Bird Princess text. The story ends with a description of what happened to the murderess:

- (33) (a) [A o-dra            [bulu-ta                      gaa maa]<sub>PREDICATE</sub>]<sub>CLAUSAL NP</sub>,  
           ART CL-3plPOSS cover.with.earth-TR JUST THERE  
 (b) [i na gauna]<sub>PERIPHERAL</sub> [saa buta            'ina]<sub>PREDICATE</sub>,  
           AT ART time                      ASPECT be.cooked PERI.FR  
 (c) [saa qei cele]<sub>PREDICATE</sub> [a lovo]<sub>S</sub>,  
           ASPECT THEN be.opened.up ART earth.oven  
 (d) [era saa qei cebe.cebe]<sub>PREDICATE</sub> [a yago-na]<sub>O</sub>,  
           3plA ASPECT THEN cut.up                      ART body-3sgPOSSESSOR  
 (e) me                      [ra saa 'ani-a]<sub>PREDICATE</sub>  
           PURPOSIVE 3plA ASPECT eat-TR

After their having covered (the woman) with earth there, when she was being cooked (in the earth oven), then the earth oven was opened up, then they cut up her body, for them to eat her.

Each clause here bears a marker of linkage—a clausal NP in (a), fronted peripheral NP *i na gauna* in (b), predicate modifier *qei* 'and then' in (c) and (d), and relator *me* 'in order to' in (e).

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# The Semantics of Clause Linking in Toqabaqita

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## 1. Background<sup>1</sup>

Toqabaqita is an Oceanic language spoken on the island of Malaita in the Solomon Islands. *Ethnologue*, where the name of the language appears as To'abaita, gives the number of speakers as 12,572 in 1999 (Gordon 2005). Toqabaqita is a nominative-accusative language, almost exclusively head marking. The basic constituent orders in verbal clauses are shown in (1). 'V-complex' stands for 'verb complex' (see further below). The O element designates lexical (not pronominal) noun phrases.

(1) Basic constituent orders

Intransitive clauses: S V-complex

Transitive clauses: A V-complex O

The verb complex minimally consists of a verb. In addition to a verb, a verb complex may contain one or more preverbal and/or postverbal particles. Pronominal direct objects too are part of the verb complex. They immediately follow the verb, before any of the postverbal particles. There are also preverbal subject markers, which simultaneously index the subject with respect to the person (first, second, and third), number (singular, dual, and plural), and clusivity (inclusive, exclusive) and express tense, aspect, sequentiality, negation, or dehortation values. There are five sets of subject markers distinguished by the tense, aspect, etc. values: (i) non-future tense; (ii) future tense/imperfective aspect; (iii) sequentiality; (iv) negative; (v) dehortative. The dehortative set is archaic and is of no relevance to clause linking. The sequential subject markers have as their core function expressing sequences of states of affairs and figure in several types of clause linking. There is only

<sup>1</sup> I am grateful to participants at the workshop for comments on the version of this chapter delivered there.

one set of negative subject markers, and the non-future/future/imperfective/sequentiality contrasts are suspended in negation. The inclusive forms are not considered here to be first person and so are not specified for person.

Besides the subject markers there is also a set of independent personal pronouns, which make the same person, number, and clusivity distinctions as the subject markers, but not the tense/aspect/sequentiality/negation/dehortation distinctions. In (2) the first clause contains the third person singular independent personal pronoun *nia* in the subject position, the third person singular non-future subject marker *e* and the postverbal completive particle *sui*, and the second clause contains the second person singular sequential subject marker *qoko* and the preverbal immediate-past/immediate-future particle *biqu*:

- (2) [Nia e baqe sui], [qoko biqu ngata]<sup>2</sup>  
 3sg 3sg:NFUT speak COMPL 2sg:SEQ IMM speak  
 As soon as she has finished speaking, you speak. (lit., She has finished speaking, you (will) immediately speak.)

## 2. Clause linking: a preview

Toqabaqita has several types of subordinate, non-main clauses. These are listed in Table 1. Some, but not all, are relevant to the present topic, as noted in the table.

TABLE 1. Types of subordinate/non-main clauses in Toqabaqita

Complement clauses (not relevant here):

- (a) clauses that function as direct objects of higher verbs
- (b) paratactic clauses

Clauses that function as complements of “prepositions”, i.e. forms that also take NP complements: just as NP complements, clausal complements may be indexed on the preposition by means of an object suffix; see Table 3 in §4.1

Deranked clauses: these lack a subject-tense/aspect/etc. marker normally present in finite clauses

Relative clauses: only relative clauses that modify the head noun ‘time’ are relevant here

Other types, introduced by various elements: particles, a nominalization, an element that also functions as a disjunctive coordinator

<sup>2</sup> Most of the orthographic symbols have the expected sound values. The sound values of the other orthographic symbols are as follows: *f* = /*ɸ*/; *gw* = /*ɡʋ*/; *kw* = /*kʋ*/; *ng* = /*ŋ*/; *q* = /*ʔ*/; *th* = /*θ*/; The voiced stops and /*w*/ are prenasalized to various degrees.

The equal sign (=) in examples signals phonological fusion of the two words with deletion of some material in one or both words.

There is a variety of elements used in clause linking functions, as the term is used in this volume. Those elements are listed in Table 2. Some of the forms are polysemous, in one of two ways. Some have multiple clause linking functions, while others have one or more clause linking functions as well as one or more functions outside of clause linking. Both types of polysemy are mentioned in the relevant places in the body of the chapter.

The table does not list the various types of subject markers, non-future, future/imperfective, sequential, and negative, because those are typically used in conjunction with other clause linking means. When a certain type of clause linking requires a certain type of subject marker, this is stated in the appropriate place.

While the nature of the link between states of affairs is usually expressed explicitly, sometimes it is only implied (and is inferred by the hearer), the two clauses being coordinated with each other. A few examples are given in the discussion that follows.

### 3. Temporal links

#### 3.1. Temporal succession

The order of the clauses expressing temporal succession is iconic: first clause, first state of affairs—second clause, second state of affairs. The two clauses are linked, optionally, by means of the coordinator *ma* ‘and’ in the second clause, and the second clause contains the appropriate sequential subject marker. *Ma* is also used to express addition (§6.1, §6.2, §6.4).

- (3) Kera        kotho        boqo    qi        maa,        **ma**    botho    baa  
      3pl:NFUT   go.through   ASRT   LOC   outside   **and**   pig        that  
      **ka**        kotho...  
      3sg:SEQ   go.through  
      They went outside, and (then) the pig went (outside)...

Fairly commonly, two clauses expressing temporal succession are in apposition, without the coordinator *ma*; see (2) in §1 and (4) below.

It is, of course, possible to have several clauses, each one expressing a state of affairs subsequent to that expressed in the preceding clause. In such cases the coordinator is often omitted in one or more of the clauses. In (4) the coordinator is absent from the second clause.

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The third person object suffix *-a*, used with some transitive verbs and some prepositions, has a singular-number value in the absence of a lexical object phrase. When a lexical object phrase is present, the suffix is used regardless of the grammatical number of the object. The glosses do or do not specify the number accordingly.

TABLE 2. Types of clause linking in Toqabaqita

| SEMANTIC TYPE  | MARKER  | CLAUSE MARKED | ORDER OF CLAUSES                                     | COMMENTS   |
|--|---|---------------|--|--|
| I TEMPORAL (§3)  |   |               |  |  |
| Is Temporal succession (§3.1)  | <i>ma</i>   | FC            | SC FC  | Sequential subject markers in FC. <i>Ma</i> not obligatory. <i>Ma</i> also marks addition. |
| Ir Relative time (§3.2)  | Temporal noun phrase with a relative clause;<br><i>laalae</i> | SC            | Temporal NP before or after rest of clause;<br>SC FC | More commonly temporal NP comes before rest of clause.                                     |
| Ic Conditional (§3.3)  | <i>mada</i> followed by irrealis marker                       | SC            | Either order   | SC FC order more common. <i>Mada</i> also marks alternatives.                              |
| II CONSEQUENCE (§4)  |   |               |  |  |
| Iic Cause (§4.2)   | <i>uri, suli</i>  | SC            | FC SC; SC FC when SC focused                         |  |
| Iip Purpose (§4.3)<br>Positive purpose (§4.3.2)<br>Negative purpose (§4.3.3) | <i>uri, fasi</i><br><i>fasi, ada</i>                          | FC            | SC FC<br>SC FC                                       | Construction with <i>ada</i> more common. <i>Ada</i> also marks possible consequence.      |

|                                     |   |                  |                |  |
|-------------------------------------|---|------------------|----------------|--|
| IIr Result (§4.4)                   | <i>adelana;</i><br><i>adelana . . . suli</i>                | FC<br>FC, SC     | SC FC<br>FC SC | <i>Adelana</i> in FC, <i>suli</i> in SC.     |
| III POSSIBLE CONSEQUENCE (§5)       | <i>ada</i>  | SC               | FC SC          | <i>Ada</i> also marks negative purpose.      |
| IV ADDITION (§6)                    |   |                  |                |  |
| IVu Unordered addition (§6.1)       | <i>ma, bia, bii</i>   | Second<br>clause |                | <i>Bia</i> and <i>bii</i> are rare.          |
| IVs Same-event addition (§6.2)      | <i>ma</i>   | FC               | SC FC          | <i>Ma</i> also marks temporal succession.    |
| IVe Elaboration (§6.3)              | Apposition  |                  | SC FC          |  |
| IVc Contrast, unexpectedness (§6.4) | <i>sui; sui mena; sui</i>                                   | FC               | SC FC          | ‘But’ relation.                              |
|                                     | <i>taa; ma;</i><br><i>(dooqanitaa) . . .</i><br><i>mena</i> | SC               | SC FC          | Concessive relation.                         |
| V ALTERNATIVES (§7)                 |   |                  |                |  |
| Vd Disjunction                      | <i>mada</i>   | Second<br>clause |                | <i>Mada</i> also used in SC of conditionals. |
| VI MANNER (§8)                      |   |                  |                | No dedicated marking.                        |
| VII ATTENDANT CIRCUMSTANCES (§9)    |   |                  | FC SC          | SC is deranked.                              |

Notes: FC—Focal clause; SC—Supporting clause.

- (4) [Kero oli kau,] [keko raka mai,] [ma keko  
 3du:NFUT return AND 3du:SEQ climb VENT and 3du:SEQ  
 fula-toqo-na naqa ta thaqaro]  
 arrive-TEST-3:OBJ PER some possum  
 They went back, climbed (trees) there and came across a possum.

To emphasize the completion of the first state of affairs before the onset of the next one, the intransitive verb *sui* 'end, finish, be finished' may be used. The verb heads the predicate in a 'mini-clause', which, in addition to the verb, contains only a third person singular subject marker, either non-future or, less commonly, sequential. The mini-clause follows the clause that expresses the first, completed state of affairs. All three clauses are in apposition.

- (5) [Kera thau-ngi-a ulu wela qe=ki] [qe  
 3pl:NFUT kill-TR-3:OBJ three child that=PL 3sg:NFUT  
 sui,] [keka lae na-da]  
 be.finished 3pl:SEQ go PER-3pl:PERS  
 After they killed the three children, they went (away). (lit., They killed the three children, it was finished, they went.)

Another strategy to emphasize the completion of the first state of affairs is by means of the completive particle *sui* in the first clause; see (2) in §1. Although the completive marker *sui* and the verb *sui* are one and the same etymon, in (2) *sui* is a particle, not a verb in a serial construction with the preceding verb (Lichtenberk 2006).

Not infrequently, expressions of temporal sequence carry an implication of an additional relation between the two states of affairs, such as result (§4.4):

- (6) Nau qae-ku e rusu kwa qaru  
 1sg foot-1sg:PERS 3sg:NFUT slip 1sg:SEQ fall  
 I, my foot slipped, and I fell down.

### 3.2. *Relative time*

Most commonly, relative-time linkage is expressed by means of a relative clause with the noun 'time' as the head modified by the relative clause. (Cf. a similar construction in Boumaa Fijian discussed in Chapter 9.) Normally, the noun 'time' used is *manga*, or, rarely, *kada*. For convenience, this type of construction will be referred to as 'the temporal noun phrase construction' and the relative clause will be referred to as 'the temporal relative clause'. The basic structure of the temporal noun phrase construction is given in (7):

- (7) [(*si*) {**manga** / **kada**} (*na*) relative.clause]<sub>NP</sub>  
 PRTT **time** / **time** REL

Often, but not necessarily, the head noun ‘time’ is accompanied by the partitive marker *si*. And as is the case with relative clauses in general, the relative marker *na* is occasionally absent.

It is more common for the temporal noun phrase to precede the rest of the Focal clause, as in (8), but the reverse order is possible, as in (9).

- (8) [Si **manga** na kero fula mai], keko qono  
 PRTT **time** REL 3du:NFUT arrive VENT 3du:SEQ sit  
 qa-daroqa...  
 SBEN-3du:PERS  
 When (lit., the time that) they arrived, they sat (down)...

Temporal relative clauses can express sequential as well as non-sequential relations between states of affairs. In (8) above, the two events are in temporal succession. In (9) below, the two states of affairs are simultaneous. In (9) the temporal noun phrase follows the rest of the Focal clause.

- (9) Teqe wane ka rakeqiri [**manga** na kwai uqunu  
 one man 3sg:SEQ be.angry **time** REL 1sg:IMPERV narrate  
 quna qeri]  
 manner that  
 One man got angry when I was speaking like that.

There is another type of construction to express relative time, one which does not use a temporal noun phrase with a relative clause. In this construction the Supporting clause is introduced by *laalae*, which is historically a reduplication of the verb *lae* ‘go’. In this function *laalae* is glossed ‘when’.

- (10) [**Laalae** qoki kilu-a lali qoe,] [qoko  
**when** 2sg:IMPERV plant.taro-3:OBJ taro.top 2sg 2sg:SEQ  
 keekefu qana kwato]  
 wiggle GENL.PREP dibble.stick  
 When you are planting taros (lit., your taro tops), you should wiggle  
 the dibble stick (in the ground to make a hole).

While the construction with a temporal noun phrase and the *laalae* construction are equivalent in some situations, there are also some differences between them. First, unlike temporal noun phrases, the *laalae* construction can be used only if the state of affairs expressed in the Supporting clause is subsequent to reference time or with reference to general, temporally



unrestricted (types of) states of affairs. It is not used to express states of affairs simultaneous with or preceding reference time. The sentence in (10) above expresses general states of affairs. As discussed in §3.3, *laalae* also functions to introduce the protases of conditional sentences, but not in counterfactual conditionals. The restrictions on *laalae* in temporal clauses and in the protases of conditional sentences are parallel. In both types of case, the state of affairs expressed in the *laalae* clause is subsequent to reference time or it is a general type of state of affairs.

And second, unlike temporal noun phrases with relative clauses, which may follow the rest of the Focal clause, *laalae* Supporting temporal clauses always precede their Focal clauses.

### 3.3. *Conditionals*

Most commonly, the protasis is introduced by the element *mada* followed by the irrealis marker *sa* (or, less commonly, *so*). (Cf. the use of irrealis markers in protases in Manambu (Chapter 5) and in Mali (Chapter 15).) *Mada* and *sa* frequently fuse together as *ma=sa*. *Mada* also functions as a clause coordinator of disjunction ‘or’ (§7). When it introduces a protasis, it is glossed ‘if’.

The usual order of clauses in conditional sentences is Supporting clause (protasis)—Focal clause (apodosis), but the reverse order is possible (see (15)).

On the basis of their semantics, two basic types of conditionals are distinguished in Toqabaqita: reality and unreality. The terms ‘reality conditionals’ and ‘unreality conditionals’ have been adopted from Thompson and Longacre (1985), but not with exactly the same meanings. Thompson and Longacre (1985: 190) define reality conditionals as ‘those which refer to “real” present, “habitual” (or “generic”) or past situations’, and unreality conditionals as those that ‘refer to “unreal” situations’, unreal situations being situations that are imagined or predicted. In Toqabaqita, habitual/generic conditionals are expressed in the same way as unreality conditionals (see (12)), and so here the term ‘reality conditionals’ designates only real present or past situations. On formal grounds the distinction between reality and unreality conditionals is made in the apodosis by means of different subject markers, but only in grammatically positive sentences. In negative sentences the various distinctions are neutralized (§1).

In reality conditionals the apodosis has a non-future or a negative subject marker. In (11) the apodosis contains the third person singular non-future subject marker. In the situation expressed in (11) the man has already made the club, but he is not happy with its appearance.

- (11) [Nia ka takwe-la-ngani-a,] [ka lio,] [ka  
 3sg 3sg:SEQ stand-EXT-TR-3sg:OBJ 3sg:SEQ look 3sg:SEQ  
 rii-riki-a,] [qoo, si qai neqe, mada sa  
 REDUP-look.at-3sg:OBJ oh PRTT wood this if IRR  
 ka alu-a ba-na teqe gwalusu-qi doo  
 3sg:SEQ put-3:OBJ LIM-3sg:PERS one nose-ASSOC thing  
 qu=naqi], [riki-la-n=e taqaa neri]  
 manner=this look.at-NOMZ-3sg:PERS=3sg:NFUT be.bad NPAST.HERE  
 He stood it (a war-club) up, looked, and kept looking at it; oh, this  
 stick, if he puts a 'nose' (lit.: a nose thing) on it like this, it (the war-  
 club) looks no good (lit., its looking-at is bad). (*Gwalusu* designates  
 noses of humans and snouts of animals, and also a kind or projection  
 on one kind of war-club.)

Reality conditionals are not very common in Toqabaqita, and the rest of the discussion deals with unreality conditionals.

There are two types of unreality conditionals. In one the state of affairs of the apodosis is a direct, more-or-less immediate consequence of the state of affairs of the protasis. The apodosis, if grammatically positive, has a sequential subject marker. The sentence in (12) may be a statement about what would happen on a particular occasion (meaning a) or it may be a generic statement about what happens any time the event expressed in the protasis takes place (meaning b):

- (12) Mada s=o sua-na iqa naqi, rake-na  
 if IRR=2sg:NFUT touch-3:OBJ fish this belly-3sg:PERS  
 ka boe nena  
 3sg:SEQ puff.up NPAST.THERE  
 a. If you touch this fish, its belly will puff up. or  
 b. If (when) you touch this (kind of) fish, its belly puffs up.

The sentence in (13) is a counterfactual conditional. The child's dying is a direct consequence of his disobedience.

- (13) [Ma wela qeri, mada sa ka ade ba-na suli-a  
 and child that if IRR 3sg:SEQ act LIM-3sg:PERS PROL-3:OBJ  
 thaina-na bia maka nia,] [[nia sa ka toda-a  
 mother-3sg:PERS and father 3sg 3sg IRR 3sg:SEQ meet-3:OBJ  
 mae-la-na qa=fa bongi qeri] [qe aqi]]  
 die-NOMZ-3sg:PERS GENL.PREP=CL day that 3sg:NFUT not.be.so  
 And, the child, if he had only obeyed (lit., if he had only acted along)  
 his mother and father, he would/could not have met his death on that  
 day.

(The irrealis marker *sa* in the apodosis is present not because of the conditional being counterfactual. Rather, it is required by the construction used to express the impossibility of a state of affairs occurring. The construction is grammatically positive.)

In the other type of unreality conditionals the state of affairs of the apodosis is not an immediate consequence of the state of affairs of the protasis; or even if it is, the speaker chooses not to present it as such. That is, this type of unreality conditional is semantically unmarked. Here, grammatically positive apodoses contain the appropriate future tense subject marker, unless the sequential subject marker is called for for another reason. The sequential subject markers also serve to express attenuated imperatives, such as encouragements, suggestions, or expectations about what the addressee(s) should do; see (15) and (17) below and (10) in §3.2.

In the situation expressed in (14), while the man's return to the Solomon Islands later on is a precondition for his talking about his experiences in the country where he is at the time, his talking about his experiences is not a direct result of his return. For the use of *laalae* 'if' together with *mada* 'if' and the irrealis marker see further below.

- (14) ... ['Wane naqi qe lae mai bii qoe,] [laalae  
           man this 3sg:NFUT go VENT COMIT 2sg if  
**mada sa ka oli uri Solomoni Aylen,] [kai**  
**if IRR 3sg:SEQ return ALL Solomon Islands 3sg:FUT**  
 uqunu qufita ba-na sul-i-a riki-laa  
 narrate be.how? LIM-3sg:PERS PROL-3:OBJ see-NOMZ  
 n=e riki-a qana fanu naqi?']  
 REL=3sg:NFUT see-3sg:OBJ GENL.PREP country this  
 (A woman asked him about me, she said,) 'This man has come here  
 with you; if he returns to the Solomon Islands, just what will he say  
 about what he saw in this country (lit., just how will he narrate about  
 the seeing that he saw in this country)?'

In (15) (from a letter) the apodosis precedes the protasis, which is considerably less common. The apodosis expresses a mild request, and so the subject marker is sequential.

- (15) [Qoko manata-lube nau,] [[ma=sā kwa sore-a  
       2sg:SEQ mind-be.untied 1sg if=IRR 1sg:SEQ say-3:OBJ  
 ta si doo i laa letter neqe] [ka aqi  
       some PRTT thing LOC IN letter this 3sg:SEQ NEG.V

si            talaqa-na   manata-la-mu]]  
 3sg:NEG   fit-3:OBJ   think-NOMZ-2sg:PERS  
 ...forgive me if I have said something in this letter and it does not  
 fit your thinking/thoughts.

In the situation expressed in (16), there is a direct, immediate causal link between the two states of affairs; still, the apodosis contains a future subject marker:

- (16) Ma=sa   ku            riki-a            tha            Maeli,   kwai   ngata  
       if=IRR   1sg:NFUT   see-3:OBJ   PERS.MKR   Maeli   1sg:FUT   speak  
       bii        nia  
       COMIT   3sg  
       If I see Maeli, I will speak with him.

Instead of *mada* and the irrealis marker, the protasis may be introduced by the form *laalae*, which is also used in relative-time linkage (§3.2):

- (17) Qigi-toqo-na   fasi   fa   niu            qena. [Laalae   suul-a  
       shake-TEST-3:OBJ   PREC   CL   coconut   that   if            juice-3sg:PERS  
       qe            nii            qi   ei,]        [qoko   ngali-a]  
       3sg:NFUT   be.located   LOC   LOC.PRO   2sg:SEQ   take-3sg:OBJ  
       Check the coconut first by shaking it. If it has (coconut) water (lit.,  
       if its juice is in it), take it.

It is even possible for *laalae* and *mada* with the irrealis marker jointly to introduce a protasis; see (14) further above.

A conditional relation may be implied by clause apposition:

- (18) [Wane   e            thathami-a   malefo   qoro],        [ka        raa  
       man   3sg:SEQ   want-3:OBJ   money   be.plentiful   3sg:SEQ   work  
       suukwaqi   qana            kafara   ma   koukou]  
       be.strong   GENL.PREP   copra   and   cocoa  
       (If) a man wants (to have) a lot of money, he will work hard on  
       (producing) copra and cocoa.

#### 4. Consequence

In Toqabaqita, there is some overlap between cause and purpose clauses in terms of the marking involved, and so the two types of linkage are best discussed together.

TABLE 3. The functions of *uri*, *fasi*, and *suli* with clauses as complements and with noun phrases as complements

|             | With clauses as complements | With noun phrases as complements |
|-------------|-----------------------------|----------------------------------|
| <i>uri</i>  | purpose, cause              | allative, purpose, cause         |
| <i>fasi</i> | purpose                     | ablative                         |
| <i>suli</i> | cause                       | prolative, cause                 |

#### 4.1. *Cause and purpose: introduction*

The following elements are involved in marking cause and/or purpose clauses: *uri*, *fasi*, *suli*, and *ada*. The first three forms, but not *ada*, also function as prepositions with noun phrases as their complements. The uses of those three elements are summarized in Table 3.

The prolative marker *suli* is also used with the meaning ‘about’, as in ‘speak about X’ (see (14) in §3.3); cf. a similar cause-‘about’ polysemy in Akkadian (Chapter 2).

The forms *uri*, *fasi*, and *suli* derive historically from transitive verbs (Lichtenberk 1991). When they have a lexical (not a pronominal) noun phrase as their complement, they may index the complement by means of the third person object suffix *-a*, also used with certain transitive verbs to index third person objects (see n. 2), or they can occur in reduced forms *ura*, *fasa*, and *sula*, respectively, where the object suffix *-a* has become part of the preposition itself.

When these elements have clauses as their complements, they optionally take the third person object suffix *-a*. There is no semantic difference between the forms with and without the suffix. The reduced forms *ura*, *fasa*, and *sula* are possible, but rare.

The fourth element *ada* functions as a timitive marker, to signal negative purpose and also (negative) possible consequence (§5).

#### 4.2. *Cause*

There are two main types of cause clauses in Toqabaqita: non-focused and focused. They differ from each other in their marking and in their ordering with respect to their Focal clauses.

4.2.1. *Non-focused cause clauses* Non-focused cause clauses are introduced either by *uri* or by *suli*, without any semantic difference. The Supporting cause clause follows the Focal clause. In (19) (from a letter) the cause clause is

introduced by *suli* with the object suffix *-a*, and in (20) the cause clause is introduced by *uri* without the object suffix:

- (19) [Oh my God, nau ku dora qana biinga-laa  
 oh my God 1sg 1sg:NFUT not.know GENL.PREP sleep-NOMZ  
 qa=fa rodo,] [ma kwa dora qana fanga-laa,]  
 LOC=CL night and 1sg:SEQ not.know GENL.PREP eat-NOMZ  
 [suli-a ku dora qana qani-la-na  
 CAUS-3:OBJ 1sg:NFUT not.know GENL.PREP eat-NOMZ-3:PERS  
 Japanese food]  
 Japanese food  
 Oh my God, I was not able to sleep (I did not know how to get to sleep)  
 at night, and I could not eat (I did not know how to eat), because I did  
 not know how to eat Japanese food.

- (20) [Qoe, qe aqi qosi lae bii nau,] [uri qoe  
 2sg 3sg:NFUT NEG.V 2sg:NEG go COMIT 1sg CAUS 2sg  
 kwai-na wane ramo,] [nau wane teqe nau,]  
 spouse-3:PERS man professional.killer 1sg man sole 1sg  
 [ada ka ala-si nau]  
 TIM 3sg:SEQ attack.to.kill-TR 1sg  
 You, don't come (lit., go) with me, because you are the wife of a  
 professional killer, (whereas) I am alone (lit., I am a man sole me),  
 (and) he might attack and kill me.

A cause marker can be used to introduce a Supporting clause that expresses not the cause of, or the reason for, the state of affairs expressed in the Focal clause, but rather the evidence or presumed evidence for why the state of affairs expressed in the Focal clause exists or seems to exist:

- (21) Wane e mataqi suli-a rake-na e  
 man 3sg:NFUT be.sick CAUS-3:OBJ belly-3sg:PERS 3sg:NFUT  
 bose  
 be.distended  
 The man is sick, because his belly is distended. OR The man must be  
 sick, because his belly is distended.

4.2.2. *Focused cause clauses* To put a noun phrase in focus, it is fronted and the clause of presupposition is introduced by the element *na* (which also functions as a complementizer and to introduce relative clauses; see (7) in §3.2 for the latter). Similarly, in the focused cause construction the Supporting clause is fronted to before the Focal clause, but there is no cause marker. The

Focal clause is introduced by the focus marker *na*. The focused cause construction serves to emphasize and highlight the cause state of affairs. The sentence in (22) contains a non-focused cause construction, while the one in (23) contains the corresponding focused construction:

- (22) Wela naqi qe angi {uri-a / suli-a} nia  
 child this 3sg:NFUT cry CAUS-3:OBJ / CAUS-3:OBJ 3sg  
 qe thaofa  
 3sg:NFUT be.hungry  
 The (lit., this) child cried because he/she was hungry.
- (23) [Wela naqi qe thaofa] [na ka angi neqe]  
 child this 3sg:NFUT be.hungry FOC 3sg:SEQ cry VIVID  
 It was because the child was hungry that he/she cried.

#### 4.3. Purpose

4.3.1. *Introduction* On the basis of their grammatical properties, it is necessary to distinguish between positive-purpose constructions (X in order that Y) and negative-purpose constructions (X in order that not Y). In both types the order is always Supporting clause—Focal (purpose) clause.

4.3.2. *Positive purpose* Clauses expressing positive purpose can be introduced either by *uri* (which can also mark cause) or by *fasi* (Table 3 in §4.1), without any semantic difference. (Occasionally, but only rarely, the two markers are combined, with *uri* preceding *fasi*.) The subjects of the Supporting and the Focal clauses may be identical or different. The subject marker in the purpose clause is either sequential or future, without any semantic difference.

In (24) the purpose marker is *uri*, it carries the object suffix *-a*, the subject marker in the Focal clause is future, and the clauses have identical subjects:

- (24) [Gavman qe firu] [uri-a kai kwaqe]  
 government 3sg:NFUT fight PURP-3:OBJ 3sg:FUT hit  
 muu-si-a bo=naqa Masin Ruul fasi-a laa  
 break-TR-3:OBJ ASRT=INTENS Marching Rule ABL-3:OBJ IN  
 aququa naqi]  
 island this  
 The Government fought to crush/break up (the) Marching Rule  
 (movement) on (lit., from) this island.

On the other hand, in (25) the purpose marker is *fasi*, it occurs without the object suffix *-a*, the subject marker in the Focal clause is sequential, and the two clauses have different subjects:

- (25) [Wane nau, nau kwai naqare-a tai alo] [fasi  
 man 1sg 1sg 1sg:FUT roast-3:OBJ some:PL taro **PURP**  
**qoko** ngali-a]  
 2sg:SEQ take-3sg:OBJ  
 (a) My man, I'll roast some taros so that you can take them. OR  
 (b) My man, I'll roast some taros for you to take.

When the predicate of the Supporting clause is headed by the verb *lae* 'go' and the (notional) subjects of the two clauses are identical ('go in order to X'), it is common for there to be no purpose marker, no subject marker in the Supporting clause, and there need not be a subject noun phrase in that clause either. The two clauses are in apposition and the purpose relation is only implied:

- (26) [Lae] [kwai taqu-a fasi qaba-ku]  
 go 1sg:FUT wash-3:OBJ **PREC** hand-1sg:PRS  
 I'll go wash my hands first.

4.3.3. *Negative purpose* There are two basic constructions to express negative purpose. In one, the purpose clause is introduced by *fasi*, which also marks positive purpose. The other positive-purpose marker *uri* is not used here. The purpose clause is grammatically negative. This type of construction is not very common.

- (27) [Nau ku agwa qi buir-a fau,] [fasi-a  
 1sg 1sg:NFUT hide LOC behind-3:PRS rock **PURP-3:OBJ**  
 wane qeri **qe=aqi** si riki nau]  
 man that 3sg:NFUT=NEG.V 3sg:NEG see 1sg  
 I hid behind the rock so that the man would not see me.

More commonly, the purpose clause is introduced by the timitive marker *ada*, which also marks (negative) possible consequence (§5). (For more detail on the timitive marker see Lichtenberk 1995.) The purpose clause is grammatically positive and the subject marker is sequential:

- (28) [Qoko riki-a] [ada qoko rusu]  
 2sg:SEQ watch-3:OBJ **TIM** 2sg:SEQ slip  
 Watch out (lit., watch it) so that you don't slip.

#### 4.4. Result

To express result, the Focal (result) clause is introduced by the form *adelana*. *Adelana* is historically the nominalization of the verb *ade* 'do, make': *ade-la-na* 'do-NOMZ-3sg:PRS', literally 'its doing'. Grammatically positive result clauses contain the appropriate sequential subject marker, except when an



imperfective subject marker is called for; as in (30) and (29), respectively. The Supporting clause and the Focal clause may occur in either order. When the cause clause precedes the result clause, *adelana* serves as the linker:

- (29) [Qo        nii            qa=si                    kula   ki   sui        bana,]  
       2sg:NFUT   be.located   GENL.PREP=PRTT   place   PL   EXHST   LIM  
       [adelana   qoki            thuu-fi        kamiliqa]  
       RES        2sg:IMPERV   protect-TR   1pl(exc)  
       You (God) are everywhere (lit.: in all places) and so/therefore (can)  
       protect us.

Not infrequently the Focal clause precedes the Supporting clause. This happens when the resulting state of affairs is old information and the clause of cause provides an explanation for its existence. The result clause contains *adelana*, and, in addition, the clause of cause is introduced by the cause marker *suli*, but not by the other cause marker *uri* (§4.2).

- (30) [Adelana   thaqaro-na        ku=naqi    ka        qafetaqi,]  
       RES        possum-3:PRS   place=this   3sg:SEQ   be.difficult  
       [suli-a        kera        i=i                    thaqegano   neri]  
       CAUS-3:OBJ   3pl:NFUT   be.located=LOC   ground   NPAST.HERE  
       (And) so the possums at (lit., of) this place are difficult (to spot),  
       because they are on the ground (rather than up in trees).

## 5. Possible consequence

In expressions of possible consequence, the Supporting clause is introduced by the timitive marker *ada*, which also marks negative purpose (§4.3.3). The Supporting clause is grammatically positive and the subject marker is sequential. This construction is used only if the possible consequence is undesirable in some way. It is not unusual for one and the same sentence to be interpretable as expressing negative possible consequence or negative purpose.

- (31) [Qoko    beta            qoe   ba-muqa,]        [ada   maruki-la-mu  
       2sg:SEQ   take.care.of   2sg   LIM-2sg:PERS   TIM   live-NOMZ-2sg:PERS  
       ka        too            qi    laa   qafetaqi-a        or   danger]  
       3sg:SEQ   be.located   LOC   IN   be.difficult-DVN   or   danger  
       (a) Take care of yourself lest your life get into hardship/difficulty or  
       danger. OR  
       (b) Take care of yourself so that your life may not get into hardship/  
       difficulty or danger.

(This example comes from a written communication that contains instances of code mixing.)

## 6. Addition

### 6.1. Unordered addition

There are three coordinators used to signal the relation of addition between states of affairs: *ma*, *bia*, and *bii* ‘and’. Of these, *ma* is the one normally used; *bia* and *bii* are extremely rare. All three can also conjoin noun phrases, and *ma* can also conjoin prepositional phrases. *Bia* and *bii* also function as comitative prepositions. (See Lichtenberk 1991 for detail.) There are no semantic differences among the three coordinators. *Ma* is also used in expressions of temporal succession (§3.1), same-event addition (§6.2), and can also be used when the link between two propositions is one of contrast or unexpectedness (§6.4).

Example (32) contains the normally used coordinator *ma*.

- (32) [Ta fai noniqi wane keka lae uri-a  
 some four CL man 3pl:SEQ go PURP-3:OBJ  
 raraqe-laa], [ma ta fai noniqi wane keka  
 hunt.possum-NOMZ and some four CL man 3pl:SEQ  
 lae uri-a nao-laa qi laa kafo]  
 go PURP-3:OBJ bail-NOMZ LOC IN stream  
 Four of the (eight) men were going to go possum-hunting, and (the  
 other) four men were going to go and bail water out of (lit., in) the stream.

For another example see (19) in §4.2.1.

### 6.2. Same-event addition

To express same-event addition, the linker *ma*, which also expresses unordered addition, is used. (The other unordered-addition markers *bia* and *bii* are not used here.)

Not infrequently, same-event addition has the connotation of result:

- (33) [Ma wane baa ka fanga,] [ma ka lio] [ma ka  
 and man that 3sg:SEQ eat and 3sg:SEQ look and 3sg:SEQ  
 riki-a thaari baa ka aqi si raa uri-a  
 see-3:OBJ girl that 3sg:SEQ NEG.V 3sg:NEG reach ALL-3:OBJ  
 tai si fanga qana doo baa ki, ...].  
 some:PL PRTT food GENL.PREP thing that PL  
 And the man was eating, and he looked and saw that the girl had not  
 reached for any of the food, ...

6.3. *Elaboration*

This type of linking is typically by apposition. In (34) the second, Focal clause expresses the content of the event of speaking expressed in the first, Supporting clause:

- (34) Iu, [kero ngata quna qeri], [keeroqa keko  
 all.right 3du:NFUT talk manner this 3du 3du:SEQ  
 qolo-a fa thato na keeroqa keki toda  
 agree.on-3:OBJ CL day REL 3du 3du:FUT meet  
 keeroqa qi laa kada fanua qeri]  
 3du LOC IN block land that  
 All right, they talked like that, (and) they agreed on a day they would  
 meet in that area of land.

It is relatively common for the Focal, elaborating clause to contain the same verb as the Supporting clause:

- (35) [Wane baa ka lae,] [qe lae ura kula ba=nia  
 man that 3sg:SEQ go 3sg:NFUT go ALL place that=3sg  
 toda-a thaari baa] ...  
 meet-3:OBJ girl that  
 The man went, he went to the place where he had met the girl ...

6.4. *Contrast, unexpectedness*

One way to express contrast or unexpectedness is by means of the linker *sui* 'but'. *Sui* is the same etymon as the intransitive verb *sui* 'end, finish; be finished' (example (5) in §3.1) and the completive particle *sui* (example (2) in §1). In (36) the relation between the two states of affairs is one of contrast, and in (37) one of unexpectedness.

- (36) [Keka lio,] [maqasi-a maqalimae uri-a  
 3pl:SEQ look wait.for-3:OBJ enemy PURP-3:OBJ  
 gaetemu-la-na figu-a kera ki,] [sui Merika  
 guide-NOMZ-3:PERS gather-DVN 3pl PL but America  
 qe=ki kera lio,] [maqasi-a maqalimae mamana]  
 that=PL 3pl:NFUT look wait.for-3:OBJ enemy be.real  
 (During the Marching Rule movement) they (the adherents to the  
 movement) watched (lit., looked), waiting for an (imaginary) enemy  
 in order to lead their groups, but/while/whereas the Americans had  
 watched, waiting for a real enemy.

- (37) [Wane qeri wan=daraa n=naqa,] [thaama-na  
 man that man=be.young LIG=PER father-3:PRS  
 wane baqita naqa,] [sui nia wan=daraa]  
 man be.big PER but 3sg man=be.young

The man was already a *daraa* man; (he was) a very big man, but (still) only a *daraa* man. (*Daraa* is used about males who are no longer considered children, but are still relatively young and not yet married.)

*Sui* may be accompanied by *mena*, which also signals concessive links between propositions (see (39) and (40) further below) or by *taa*, which also functions as an interrogative noun ‘what?’ and as an interjection of surprise, amazement, or to emphasize a sudden change: ‘lo!’, ‘behold!’: *sui mena* and *sui taa*, respectively.

Relations of contrast and unexpectedness are also frequently expressed by means of *ma*, which also functions as a temporal-succession linker (§3.1) and an additive linker (§6.1, §6.2):

- (38) Qe leqa ba-na uri-a visit-laa,  
 3sg:NFT be.good LIM-3sg:PRS PURP-3:OBJ visit-NOMZ  
**ma** too-laa molo ku lalakwa  
**and** reside-NOMZ AFF.TOP 1sg:NFT not.like

It (Japan) is just fine for visiting, but living (there) I do/would not like.

Unexpectedness can also be expressed by means of a concessive construction. In the concessive construction, the verb complex of the Supporting clause contains the postverbal particle *mena*, which can also form part of the coordinator *sui mena* ‘but’ (see above). *Mena* can also function as a clause-level ‘foregrounding additive’ particle with noun phrases in its scope: ‘also, too’. (See Chapter 7 for additive (‘also’)-concessive polysemy in Aguaruna.) In addition to *mena*, the Supporting clause may contain initial *dooqanitaa*. *Dooqanitaa* also functions as a verb meaning ‘forgive’ and as an interjection ‘never mind’. If a grammatically positive Supporting clause contains only *mena*, the subject marker may be sequential or non-future, unless an imperfective subject marker is used (to express habitual/generic types of situation). If a grammatically positive Supporting clause contains *dooqanitaa* in addition to *mena*, the subject marker is sequential. In both types of case the order is Supporting clause—Focal clause.

In (39) the Supporting clause contains only *mena*, while in (40) *dooqanitaa* is present as well.

- (39) [[**Kera** rongo-a **mena**] [gavman e ala-ngani-a  
3pl:NFUT hear-3:OBJ CONJ government 3sg:NFUT threaten-TR-3:OBJ  
lokap,]] [[kera keka sore-qe,] ['Leqa ba-na']]  
jail 3pl 3pl:SEQ say-DETR be.good LIM-3sg:PERS  
Even though they heard that the government was threatening (them)  
with jail, they said, 'Fine.' (lit., '(It is) just good.')

- (40) [**Dooqanitaa** kuka feda **mena**,] [qe aqi  
CONJ pl(inc):SEQ be.tired CONJ 3sg:NFUT NEG.V  
kusi mamalo]  
pl(inc):NEG rest  
Even though/Never mind we are tired, we won't/shouldn't rest.

Contrast or unexpectedness may be implied by clause apposition, as in (20) in §4.2.1.

## 7. Alternatives: disjunction

The relation of disjunction is expressed by means of the coordinator *mada* 'or'. *Mada* is also used in coordination of noun phrases and prepositional phrases, and, together with the irrealis marker, to introduce the protases of conditional sentences (§3.3). The relation expressed by *mada* may be open disjunction or closed disjunction, and the alternatives may but need not be mutually exclusive. In (41) the alternatives are mutually exclusive:

- (41) Koro koki lae **mada** koki too ba-karoqa?  
du(inc) du(inc):FUT go or du(inc):FUT stay LIM-du(inc):PERS  
Should we go or should we (just) stay?

## 8. Manner

There is no dedicated grammatical marker to express manner, real or hypothetical. Comparative manner may be expressed by means of the transitive verb *quri* 'be like', 'resemble'. The direct object expresses the (type of) participant to which another one is compared; for example, literally: 'This man, his talking is like a man who knows things, but he does not know anything at all'; that is, this man talks like someone who knows a lot, but he does not know a thing; this man talks as if he knew a lot, but he does not know a thing.

## 9. Attendant circumstances

There is a type of biclausal construction where the Supporting clause expresses a characteristic or a circumstance of the state of affairs expressed in the Focal clause, as relating to one (set) of the participants. The Supporting clause is deranked: it does not contain a subject-tense/aspect/sequentiality/negation marker. The Supporting clause follows the Focal clause, and the two clauses are in apposition. Only a small number of verbs occur in such deranked clauses, and nearly all of them are transitive. The notional subject of a deranked clause is normally coreferential with the subject or the direct object of the main clause.

One verb that can occur in such deranked clauses is the transitive verb *kali* ‘move around st., sb.; be positioned around st., sb.; surround’. In (42) the notional subject of the Supporting clause is coreferential with the subject of the Focal clause:

- (42) [Kere takwe ba-da i laa one] [maqasi-a faka]  
 3pl:NFUT stand LIM-3pl:PERS LOC IN beach wait.for-3:OBJ ship  
 They just stood on (lit., in) the beach, waiting for a ship.

It is likely that it was such use of transitive verbs in deranked clauses that gave rise to a subclass of Toqabaqita prepositions that derive historically from transitive verbs (Lichtenberk 1991).

## 10. Summary

As is also the case in other languages discussed in this volume, Toqabaqita employs a variety of morphosyntactic means to link clauses. These include coordinators (‘and’ and ‘or’); elements that elsewhere function as prepositions (allative, purpose, cause; ablative; prolativ and cause; and comitative); a relative-clause structure; a type of mini-clause; subject-tense/aspect/sequentiality markers; a form that is a reduplication of a verb (the verb ‘go’); the nominalization of a verb (the verb ‘do’); and various particles. Apposition plays a role too. One type of linking involves apposition of a Focal clause and a deranked Supporting clause (without a subject-tense/aspect/etc/ marker).

There is a fair amount of polysemy, either of the grammatical-grammatical type (an etymon having more than one grammatical function) or of the grammatical-lexical type (an etymon having one or more grammatical functions and also existing as a verb). An example of the former is the use of *mada* to express disjunction (‘or’) and to introduce (together with the irrealis

marker) the protases of conditional sentences. An example of the latter is *sui*, which can mark contrast, unexpectedness between propositions, and also functions as a completive (and exhaustive ('all')) particle associated with verbs, and as a verb 'end, finish; be finished'.

Even in this relatively restricted formal/semantic area of the language—clause linking—we find lack of one-to-one correlation between form and function. One and the same element may have more than one grammatical function, as mentioned in the preceding paragraph. And, conversely, one and the same function can be expressed by different grammatical means. For example, negative purpose can be expressed by means of *fasi*, which takes an object suffix to index the purpose clause, with the purpose clause being grammatically positive. Alternatively (and more commonly), the timitive particle *ada*, which does not take an object suffix, is used, with the purpose clause being grammatically positive.

While the nature of the relation between two propositions is typically signalled to the addressee by some overt means, in some cases the addressee makes his or her own contribution to the interpretation of a sentence by drawing an inference beyond what is said, such as projecting a causal relation on, and in addition to, a sequential temporal relation.

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# The Semantics of Clause Linking in Martuthunira

ALAN DENCH

## 1. Introduction, background, typological profile

Martuthunira is an Australian language originally spoken in the Pilbara region of Western Australia.<sup>1</sup> Within the Pilbara region, it is useful to distinguish three typologically distinct, geographically delimited groups of languages. Martuthunira sits on the border between the Central Pilbara languages and the Southern Pilbara languages and shows some features of both. All of the languages can be characterized as highly agglutinating (suffixing), dependent marking languages. Words can generally be grouped into two major word classes, nominal and verb; there is no formal distinction between adjective, (manner) adverb, and noun. There are a number of minor nominal subclasses with distinct inflectional paradigms; pronoun, demonstrative, compass term, and inherent locative adverbial nominals. Verbs are inflected for tense, aspect, and mood and verb inflections may also code dependency status and switch reference.

The Central Pilbara languages—Ngarluma, Yindjibarndi-Kurrama, and Panyjima-Yinhawangka—have a consistent nominative-accusative pattern of case alignment. The nominative-accusative case pattern for transitive verbs developed from the generalizing of a nominative-dative pattern, originally restricted to certain kinds of two-place predicates and to specific clause types (Dench 1982, 2001, 2006). The languages do not exhibit strong formal distinctions between main and non-main clause patterns, either in the range of available verbal inflections or in selection of case marking patterns. The

<sup>1</sup> For patiently teaching me what I know of Martuthunira, I am indebted to †Algy Paterson, the last fluent speaker of Martuthunira, who passed away on 6 August 1995. Algy was very concerned that knowledge of his mother's and mother's mother's language not fade into oblivion with his passing. I am grateful to the editors, to other contributors to this volume, and to other participants at the workshop for their comments, suggestions, and criticisms. The usual disclaimers apply.



languages share an active-passive voice contrast and this voice system plays some part in the organization of complex sentences. The choice of active or passive forms is partly syntactically determined, partly semantically and partly pragmatically. It is not yet clear whether the development of the consistent nominative-accusative case marking pattern, and the concomitant development of a voice contrast, is a shared innovation defining of a Central Pilbara genetic (sub)group.

The Central Pilbara languages exhibit a high degree of multiple case marking (or *Suffixaufnahme*). This is consistent with a relatively high degree of formal constituent structure (in the Australian context). Within NPs, each word bears a case indicating its relationship to other constituents in the phrase, and this is continued within embedded structures. The languages differ with respect to whether or not this pattern of complete concord is extended to non-main clauses—to what extent a complementizing case (cross-referencing the controlling NP in the main clause) extends from the dependent verb to all constituents of the clause.

The Southern Pilbara languages have more complex systems of case alignment. The case marking patterns can be described as essentially split-ergative but the split is dependent on a number of interacting factors: nominal type (the classic nominal hierarchy), predicate type (a range of patterns for two-place predicates), and clause type. In particular, non-main clauses show patterns of ‘normalized’ case marking (Austin 1981, following Silverstein 1976) in which transitive objects are marked dative rather than accusative, and overt subjects are nominative. The distinction between main and non-main clauses extends to the range of choice of verb inflection and thus there is a much clearer formal difference here than in the Central Pilbara languages. Furthermore, the Southern Pilbara languages are characterized by the presence of a switch-reference system—coded by verb inflection—in both (adjoined) relative clauses and purpose clauses. Clear switch-reference systems are not found in the Central Pilbara languages, though specific non-main clause inflections are restricted to a range of controlling main clause arguments. The Southern Pilbara languages, like the vast majority of Australian languages, do not have an active-passive voice contrast.

Martuthunira is most appropriately characterized as a Central Pilbara language but shares some features of Southern Pilbara languages. It has a consistent nominative-accusative case marking pattern and a Central Pilbara active-passive voice system. The formal division between main and non-main clauses is not so clearly defined as in Southern Pilbara languages. However, unlike its Central Pilbara neighbours, Martuthunira has a switch-reference system—most clearly in purpose clauses, but with a system of inflection for

relative clauses that effectively results in a switch-reference pattern in this clause type as well.

## 2. Basic phrase and clause structure

Noun phrases in Martuthunira are sequences of nominals over which some nominal (case) suffix may be distributed, the distribution of a particular suffix over more than one word defining a NP. Noun phrases are described (Dench 1995: 189) as an arrangement of functional slots (the asterisk indicates one or more): (Determiner) (Quantifier) (Classifier) Entity (Qualifier\*). Martuthunira shows a high degree of multiple case marking. NPs may be embedded within NPs and in such instances the distribution of (adnominal) suffixes makes this clear. Some examples of multiply suffixed nominals occur in the examples below:<sup>2</sup>

- (1) ngunhu wartirra puni-lha ngurnu-marta kanyara-marta  
 that:NOM woman go-PAST that:OBL-COMIT man-COMIT  
 tharnta-wirriwa-marta.  
 euro-PRIV-COMIT  
 The woman went with that man (who was) without a euro (kangaroo).
- (2) ngunhu muya-lalha ngaliwa-wu-u thanuwa-a,  
 that:NOM steal-PAST 1plinc-GEN-ACC bread-ACC  
 nganarna-wu-la-a ngurra-ngka-a muya-lalha.  
 1plexc-GEN-LOC-ACC camp-LOC-ACC steal-PAST  
 He stole our(inc) bread, stole it in/from our(excl) camp.

Basic clauses are either verbal or non-verbal. Non-verbal clauses involve a nominal (or nominal expression) functioning as predicate and a NP subject:

- (3) yarta wurnta-thurti-marta  
 other shield-CONJ-COMIT  
 The other one has a shield and everything.

Non-verbal clauses may have two arguments—the nominative subject and an accusative complement—in addition to a range of optional adjuncts and secondary predications. The accusative arguments are of essentially two

<sup>2</sup> Martuthunira shares with many Australian languages a phonological inventory comprising six series for stops and nasals, four laterals, two rhotics (trill/tap *rr* and continuant *r*), two glides (*y* and *w*), three short (*i*, *a*, *u*), and three long vowels (*ii*, *aa*, *uu*). Consonants are written as follows: bilabial, *p*, *m*, *w*; lamino-dental, *th*, *nh*, *lh*; apico-alveolar, *t*, *n*, *l*, *rr*; apico post-alveolar, *rt*, *rn*, *rl*, *r*; lamino-palatal, *j*, *ny*, *ly*, *y*; velar, *k*, *ng*, *w*. A period is used to separate a cluster of consonants where the orthography might otherwise lead to interpretation as a single segment: thus, *ly* contrasts with *ly*, *rt* contrasts with *rt*.

kinds. A number of nominals can be defined as two-place predicates selecting a nominative subject and an accusative complement. These in turn are of two types; relational nominals such as kinterms or human relationship terms (4); and a handful of nominals denoting a psychological state; *mirnu*, 'know', *waya* 'fear', *wiru* 'want, like' (5). In addition, non-subcategorized accusative arguments can be added to non-verbal clauses to denote either a theme (6) or animate experiencer.

- (4) *ngunhu-ngara winthi ngurnu-ngara-a-lwa.*

that:NOM-PL enemy that:OBL-PL-ACC-ID

They are enemies to these fellows.

- (5) *ngayu wiru yirnaa paju yilhi-i-rru.*

1sg:NOM want this:ACC REAL chip-ACC-NOW

I want *these* chips.

- (6) *ngunhaa jami panyu ngurntura-a.*

that:NOM medicine good cold-ACC

That medicine is good for colds.

Verbal clauses show similar variation in the selection of arguments. To begin with, it is possible to recognize a range of predicate types by their subcategorization frames, and also to recognize a variety of (external) accusative arguments that can be added to clauses. Impersonal verbs, denoting states of time or the weather, typically have no understood subject, though the subject position may be filled by a dummy demonstrative. Intransitive state and process verbs generally have a single subject argument. Simple transitive activity, achievement, or accomplishment verbs—like *thani*-L 'hit', *karta*-L 'stab, poke, chop', *kampa*-L, 'cook, burn', *kanyja*-L 'hold, keep', *manku*-Ø 'get, grab, pick up'—select a nominative subject and accusative patient/theme. Clauses may include instrumental NPs (instrument coded with the proprietive suffix) and secondary predicates of manner, linked to the agent by case agreement (Dench and Evans 1988). Verbs of transfer, the most common of which is *yungku*-Ø 'give', take two accusative complements, denoting theme and recipient (7). No alternative case frames are available for these arguments.

- (7) *nhiyu-rru kawungka-ngara-a jimpu-ngara-a yungku-layi*

this:NOM-NOW egg-PL-ACC egg-PL-ACC give-FUT

ngurnaa wantha-rrwaa malarnu-la.

that:ACC put-PURP:SU=OBJ shade-LOC

This one now gave him the eggs, to put in the shade.

TABLE 1. Locational complements of motion verbs

| VERB                              | THEMATIC ROLE OF<br>LOCATIONAL COMPLEMENT | SUFFIX             |
|-----------------------------------|---|--------------------|
| <i>puni</i> -Ø 'go'               | path                                      | locative           |
| <i>kurrarti</i> -Ø 'swim'         |   |                    |
| <i>kanarri</i> -Ø 'come'          | goal                                      | allative           |
| <i>parrani</i> -Ø 'return'        |   |                    |
| <i>wanyjarri</i> -Ø 'run'         |   |                    |
| <i>tharrwa</i> -Ø 'enter'         | goal                                      | locative           |
| <i>pungka</i> -Ø 'fall'           |   |                    |
| <i>karlwa</i> -Ø 'get up'         | goal, path                                | allative, locative |
| <i>thathu</i> -L 'send, let go'   | goal                                      | allative           |
| <i>wantha</i> -L 'place, put'     | goal                                      | locative           |
| <i>warntitha</i> -L 'throw, drop' |   |                    |

Simple motion verbs, such as *puni*-Ø 'go', have a subcategorized locational argument which may appear either with a locational case suffix or in accusative case. Similarly, verbs of induced motion or placement have a subcategorized locational argument in addition to an accusative-marked theme (8). The locational argument can appear as a second accusative argument (9). The role (and choice of locative case) of the locational complement varies for different verbs, as shown in Table 1.

- (8) ngaliwa thathu-rninyji kulhampa-ngara-a ngurnu-ngara-arta  
 iplinc send-FUT fish-PL-ACC that:OBL-PL-ALL  
 kanyara-ngara-arta.  
 person-PL-ALL  
 We'll send fish to those people.
- (9) marrari-i thathu-lalha ngurnu-ngara-a.  
 word-ACC send-PAST that:OBL-PL-ACC  
 [They] sent word to them.

Verbs of perception and cognition, such as *nhawu*-Ø 'see', *kuliya*-L 'hear', *kuliyampa*-Ø 'think, believe', select a nominative experiencer subject and either an accusative theme object or a clausal complement. Speech and

information transfer verbs have the speaker as nominative subject and recipient as an accusative object. The theme is either an accusative NP object or clausal complement. Both direct and indirect speech complements occur. The structure and selection of complements is summarized further below.

A small number of 'ambitransitive' (S=A) verbs, such as *panyunpa-Ø* 'become/be good'/'be/feel good about', *payanpa-Ø* 'become angry'/'get angry at', and *ngaya-Ø* 'cry'/'cry for', optionally select an accusative object. Where the object is present (or understood), the subject has a more controlling role, as an agent or active experiencer. No alternative case selection is available for the accusative object. In addition to the range of accusative-marked complements described above, two further types of accusative argument can appear in Martuthunira clauses: an accusative beneficiary (or maleficiary) can be added to verbal clauses, paralleling the addition of an accusative experiencer/theme to non-verbal clauses; an accusative adjunct expressing an extended time period occurs in some clauses.

The discussion so far demonstrates the wide range of functions of the accusative case, and shows that double object constructions are common (e.g., (9)). Indeed, it is generally not possible to distinguish the two objects where these occur, other than on semantic grounds.

In passive clauses, the subject may be one of the range of possible accusative arguments of the predicate that may occur in the corresponding active clause (with the exception of accusatives of temporal extent). Passive verb forms involve either a passive derivational suffix (11) or one of two passive inflections; the passive perfective (12) or 'passive lest'. The resulting passive clauses have an identical structure but for the form of the verb. The following examples illustrate active (10) and passive forms of *manku-Ø* 'get, take, pick up'.

- (10) pawulu-ngara    pukarra-a        manku-layi/-lha.  
       child-PL            firewood-ACC    get-FUT/-PAST  
       The children will get/got firewood.
- (11) pukarra    manku-ngu-layi    pawulu-ngara-lu.  
       firewood    get-PASS-FUT    child-PL-EFF  
       The firewood will be gathered by the children.
- (12) pukarra    manku-yangu    pawulu-ngara-lu.  
       firewood    get-PASS:PERV    child-PL-EFF  
       The firewood was gathered by the children.

The agent of the verb is in the unmarked nominative case in (10), but in the effector case in (11) and (12). The patient/theme is in accusative case in (10) but in nominative case in (11) and (12). The following examples show two

passive clauses involving the transitive verb *kampa*-L ‘cook’—in (13) the subject of the passive is the subcategorized patient argument of the verb, in (14) the subject is an added beneficiary, the patient appears as an accusative argument.

- (13) *nhiyu murla kampa-rnu nganaju-wu-lu wartirra-lu.*  
 this:NOM meat cook-PASS:PERV 1sg:OBL-GEN-EFF woman-EFF  
 This meat was cooked by my woman.
- (14) *ngunhu mimi murla-a kampa-nggu-layi wartirra-lu.*  
 that:NOM uncle meat-ACC cook-PASS-FUT woman-EFF  
 That uncle will have meat cooked for him by the woman.

The order of constituents in basic clauses is relatively fixed. The basic constituent order is SVO. On a count of a large text (which we will consider again later in this discussion), subjects precede the verb in 85 per cent of instances, and precede the object in 84 per cent of cases. The object follows the verb in 77 per cent of cases. Locational and other adjuncts occur on the clause margins, usually following the verb and its objects. Departures from the unmarked SVO order usually involve the placing of the object into a preverbal position of focus. Where the subject is omitted, the object may occur in initial position. Subjects are more often omitted from transitive than intransitive clauses—40 per cent as opposed to just 3 per cent, in the tested text.

### 3. Types of non-main clause and structures

Martuthunira is like many other Australian languages in being described with three general types of non-main clause—adjoined relative clauses, purpose clauses, and lest or aversive clauses. In addition, the formal patterns found in these clause types also occur in the range of clausal complements of perception and cognition predicates. The following general patterns hold for non-main clauses (Dench 1995: 240):

1. Non-main clauses are adjoined (rather than embedded, in the sense used by Hale 1976) to the main clause and occur adjacent to it. Reduced (NP-) relative clauses may appear in an embedded position adjacent to the controlling noun phrase in the main clause.
2. Where the non-main clause and the main clause share a noun phrase argument, this noun phrase is omitted from one or other of the two clauses, usually from whichever of the two follows the other.
3. The head of the non-main clause, the verb, typically bears a complementizing nominal suffix indicating the relationship between the subject

of the clause and an argument of the main clause, or a particular logico-temporal link between the two clauses. The complementizing suffix is not distributed to constituents of the non-main clause (contrary to the pattern in NPs).

The following examples of NP-relative adjoined clauses illustrate these features. The past-tense-marked verb in the finite non-main clause in (15) bears an accusative case suffix functioning as a complementizer, indicating that the controlling argument in the matrix clause is an accusative object of the matrix verb. That object is shared between the two clauses (or is understood to have been omitted from the non-main clause). In (16) the non-main clause is a restrictive relative modifying the instrument NP in the main clause. The non-main clause verb—inflected with the ‘present relative’ inflection—bears the propriative suffix as a complementizer in agreement with the instrument NP in the main clause. Note that the locative adjunct in the non-main clause does not bear this complementizing suffix.

- (15) ngayu    yanga-lalha-rru    ngurnu    pawulu-u    [muyi-i  
       1sg:NOM   chase-PAST-NOW   that:ACC   child-ACC   dog-ACC  
       thani-lalha-a.]  
       hit-PAST-ACC  
       I chased the child who (had) hit the dog.

- (16) ngayu    ngurnu    muyi-i    parla-marta    pariangku-lha,  
       1sg:NOM   that:ACC   dog-ACC   stone-COMIT   hit-PAST  
       yirna-marta    [thungkara-la    wanti-nyila-marta.]  
       this:OBL-COMIT   ground-LOC   lie-PRES:REL-COMIT  
       I hit that dog with a stone, with this one lying on the ground.

The two examples illustrate an expected pattern for NP-relative clauses—the non-main clause verb bears a nominal suffix agreeing with the head it modifies. However, the majority of non-main clauses in Martuthunira are not (NP-)relative clauses, and for these the range of complementizing case suffixes is more restricted. Generally, the predicate in the non-main clause is marked with either the accusative or locative case suffix, or is unmarked in agreement with a controlling nominative subject of the main clause. Of course, this latter case presents some ambiguity as there is then essentially no morphological marking of the dependency relation beyond the choice of the verbal inflection. Accusative marked non-main clauses are controlled by an accusative argument of the main clause. Clauses marked locative are typically not controlled by an argument of the main clause. Rather, the locative suffix codes a relatively unspecified dependency relationship between the two

clauses—in the simplest cases, that relationship is a temporal one. Before discussing these patterns in more detail and in relation to general patterns of clause linking, I will first briefly describe the incipient switch-reference system operating in Martuthunira.

Martuthunira purpose clauses inflect for switch reference. There are three purpose clause inflections, summarized in Table 2 and illustrated in examples (17) to (19).

- (17) ngayu      puni-lha    [nhawu-lu    ngurnu    kanyara-a.]  
 1sg:NOM   go-PAST    see-PURP:SS   that:ACC   man-ACC  
 I went to see that man.
- (18) nhuyu      warnan    panyu-ma-rnuru    mirntirimarta-ngara-a  
 this:NOM   rain      good-CAUS-PRES   goanna-PL-ACC  
 [puni-waa              jalyuru-la-rru.]  
 go-PURP:SU=OBJ    hole-LOC-NOW  
 This rain makes the goannas good, to go into [their] holes.
- (19) pawulu-ngara    panyi-l.yu    nhuwana,    [ngayu    nhawu-wala  
 child-PL      dance-IMP   2pl              1sg:NOM   see-PURP:DS  
 nhuwana-a    murti-i      wantharni    panyi-rnura-a.]  
 2pl-ACC      knee-ACC    how              dance-PRES:REL-ACC  
 You children dance, so I can see how you dance, your knees.

Notice that in contrast to the non-main clauses described above, the purposive marked verbs do not bear a complementizing case but, in effect, the two inflectional suffixes—*-CM-waa* and *-CM-wala*—incorporate an accusative (*-a*) and locative (*-la*) suffix respectively. The dependency status of purpose clauses is thus coded principally by the choice of verb inflection—the *-lu/-ru* purposive suffix codes a same-subject relation, the *-CM-wa* + inflections code a different-subject relation.

TABLE 2. Purpose clause verb inflections

|                 |                  |   |
|-----------------|------------------|---|
| <i>-lu/-ru</i>  | -PURP:SS         | Subject of purpose clause is coreferential with subject of main clause (17).                    |
| <i>-CM-waa</i>  | -PURP:SU<br>=OBJ | Subject of purpose clause is coreferential with an accusative argument of the main clause (18). |
| <i>-CM-wala</i> | -PURP:DS         | Subject of purpose clause is not coreferential with the subject of the main clause (19).        |

Source: After Dench (1995: 251).



Two other verbal inflectional suffixes are like the purposive suffixes in coding, implicitly, a switch-reference relation. Clauses with a verb marked with the ‘contemporaneous’ inflection stand in a same-subject relation to the main clause (and thus bear no further complementizing suffix). The ‘sequential’ inflection (which is, etymologically, built on the contemporaneous inflection) shows the same pattern (25).

- (20) ngayu      karlarra-npa-nguru-rru      [yakarrangu-la      nyina-rra].  
 1SG:NOM    hot-INCH-PRES-NOW      sun-LOC                      sit-CTEMP  
 I’m getting hot sitting in the sun.
- (21) ngayu      puni-nguru-rru      [kalyaran-ngara-a      pukarti-ngara-a  
 1SG:NOM    go-PRES-NOW      stick-PL-ACC                      snakewood-PL-ACC  
 wawayi-l.yarra.]  
 look.for-CTEMP  
 I’m going along looking for snakewood sticks.

The ‘present relative’ inflection, on the other hand, generally occurs in non-main clauses with a different subject from the controlling clause. As (19) shows, the inflected verb in such constructions does bear a complementizing case suffix. The two inflections—‘contemporaneous’ and ‘present relative’—thus present a pattern resembling switch reference in adjoined relative clauses (see Austin 1981, Dench 1987).

Martuthunira verb stems fall into one of three conjugation classes and select from among a wide range of inflections. Table 3 lists inflectional forms for the two open conjugations (Ø and L) and indicates where verbs bearing these inflections occur—in independent main clauses or in non-main clauses with nominative, accusative, locative, or other controllers. The complementizing case suffix attached to the inflected verb (-ACC, -LOC, or -OTHER) is indicated in the appropriate column. Inflections which code passive voice (with a nominative patient/theme subject) are indicated by asterisk.

Of the range of inflected verb forms, only the imperative and the present are clearly restricted to main clauses—data are limited for a number of other modal categories. Three inflections are restricted to non-main clause frames, though given that the controller in each case is necessarily nominative there is no formal indication of this dependency status other than the choice of verb inflection itself. The same is true of the two different-subject purposive inflections, as we have seen, but these can in fact occur in marked ‘insubordinated’ clauses (see Dench 1995: 186). The remaining ‘ambiguous’ inflection (with respect to its fixed dependency status) is the ‘present relative’ inflection. Like the two purposive inflections, it cannot have a nominative controller

TABLE 3. Inflectional categories of Martuthunira verbs, dependency and control status

| Category                    | Ø-class   | L-class       | main | NOM | ACC  | LOC  | other  |
|-----------------------------|-----------|---------------|------|-----|------|------|--------|
| Imperative                  | -Ø        | -lyu          | ✓    | —   | —    | —    | —      |
| Counterfactual              | -marni    | -nmarni       | ✓    | —   | —    | —    | —      |
| Present                     | -nguru    | -rnuru        | ✓    | —   | —    | —    | —      |
| Contemporaneous             | -rra      | -l.yarra      | —    | -Ø  | —    | —    | —      |
| Sequential                  | -rrawaara | -l.yarrawaara | —    | -Ø  | —    | —    | —      |
| Purposive same subject      | -lu       | -ru           | —    | -Ø  | —    | —    | —      |
| Purposive subject = object  | -waa      | -lwaa         | (✓)  | —   | -Ø   | —    | —      |
| Purposive different subject | -wala     | -lwala        | (✓)  | —   | —    | -Ø   | —      |
| Present relative            | -nyila    | -rnura        | (✓)  | —   | -ACC | -LOC | -OTHER |
| Past                        | -lha      | -lalha        | ✓    | -Ø  | -ACC | -LOC | -OTHER |
| Passive perfective*         | -yangu    | -rnu          | ✓    | -Ø  | -ACC | -LOC | -OTHER |
| Habitual                    | -wayara   | -lwayara      | ✓    | -Ø  | -ACC | -LOC | -OTHER |
| Lest                        | -wirri    | -lwirri       | ✓    | -Ø  | -ACC | -LOC | —      |
| Passive lest*               | —         | -rniyangu     | ✓    | -Ø  | —    | —    | —      |
| Future                      | -layi     | -rninyji      | ✓    | -Ø  | -ACC | -LOC | —      |

(it cannot share a subject with a linked clause), but it can occur in what is effectively an independent main clause in certain narrative contexts (see §4.5).

#### 4. Clause linkage types

Table 4 lists the patterns discussed in this section by clause linking type, showing the dependency status and relative order (where significant) of the supporting clause and focal clause, and indicating the inflectional form of the verb. The additional devices listed include clitic elements and independent words. The patterns coding manner, described in §4.7, are not included in tables as they remain very unclear.

##### 4.1. Temporal

4.1.1. *Temporal succession* Temporal succession is indicated by the simple sequencing of clauses, with the optional use of temporal adverbial expressions to specify or emphasize the frame of succession. Example (22) shows a sequence involving verbs inflected for past tense.

- (22) (a) mir.ta-nu    jarruru    kanarra    patha-rralha.  
           not-QUOT    slowly    wind    blow-PAST

TABLE 4. Summary of clause linking types in Martuthunira

| LINKING TYPE |   | SUPPORTING CLAUSE   | FOCAL CLAUSE                           | ADDITIONAL DEVICES   |
|--------------|---|---|--|--|
| Is           | Temporal succession (§4.1.1)                        | <b>1st clause</b><br>= Focal clause inflection  | 2nd clause<br>(often -FUT)             | - <i>rru</i> NOW<br>- <i>l</i> THEN<br><i>ngartil</i> 'next'<br><i>ngurnu</i> -ABL<br>'after that' |
| Ir           | Relative time (§4.1.2)                              | non-main clause<br>VINFL(-LOC/-ABL)   | main clause                            |  |
| Ic           | Conditional (§4.1.3)<br><br>Counterfactual (§4.1.3) | <b>1st clause</b><br>(non-past)<br><i>wii</i> 'if, maybe'<br><b>1st clause</b> (past)<br><i>wii</i> 'if, maybe' | 2nd clause<br>(usually -FUT)           |  |
| Iic          | Cause (§4.2.1)                                      | 2nd clause<br>-PAST/-PASS:PERV<br>(-ABL)  | <b>1st clause</b>                      | - <i>l</i> THEN  |
| Iir          | Result (§4.2.2)                                     | <b>1st (main) clause</b>  | 2nd clause<br>-PURP:SU=OBJ<br>-PURP:DS |  |
| Iip          | Purpose (§4.2.2)                                    | <b>1st (main) clause</b>  | 2nd clause<br>-PURP:SS                 |  |
| III          | Possible Consequence (§4.3)                         | 2nd clause<br>-LEST(-LOC/-ACC)  | <b>1st clause</b><br>(main)            |  |
| IV           | Addition/Elaboration (§4.4)                         | -CTEMP  | -CTEMP                                 |  |
| IVc          | Contrast (§4.5)                                     | <b>1st clause</b>   | 2nd clause<br>-PRES:REL                | - <i>lpurtu</i> COMPL  |
| Vr           | Rejection (§4.6)                                    | <i>mirta</i> 'not' + -FUT   | -IMP                                   |  |

- (b) ngunhaa-nu,      ngunhaa    puulywa-lalha    kanarra-la  
       that:NOM-QUOT    that:NOM    puff-PAST        wind-LOC  
       thawu-lalha      yilhi-i.  
       send-PAST        chip-ACC
- (c) warntitha-rralha    karalu-rru.  
       throw-PAST        south- NOW
- (a) The wind didn't blow slowly (so they say).  
 (b) (They say) that fellow, he puffed and sent the chips into the wind.  
 (c) He sent them south.

The most common pattern involves a sequence of 'future' inflected verb forms, each in turn specifying the next step in a sequence of bounded events. Often, the temporal clitic, *-rru* 'NOW', occurs in each clause, effectively resetting the reference point which the next 'future' event succeeds (23). Sequences of future-inflected verbs are used to code temporal succession in narrative recounts, procedural narratives, and in relating future plans. The following examples, taken from a single mythological narrative text, illustrate. In (23), the protagonist in the story elaborates a plan he expects he and his audience to follow.

- (23) (a) yanga-**rninyji-rru**    ngurnu    wirra-a.  
       chase-FUT-NOW    that:ACC    boomerang-ACC
- (b) wirra-tharra-a            manku-layi-**rru**.  
       boomerang-DU-ACC    grab-FUT-NOW
- (c) wuraal-wa-**rru**    kangku-layi.    pularna-a-**rru**    kanyja-rninyji.  
       well-YK-NOW    carry-FUT    3pl-ACC-NOW    keep-FUT
- (a) [We] will chase that boomerang **now**.  
 (b) [We] will grab the two boomerangs **now**.  
 (c) Alright, [we] will take them **now**. And we will keep them **now**.

Example (24) is taken from the same text. A sequence of actions is bracketed by reported speech. Although the verbs bear the future inflection, I have used the past tense in translating this to make clear that the sequence presents a past event time. (*Yirru* is a contentless speech marker characteristic of the *ngayal.yu*, 'devil cousins'.)

- (24) (a) "nhiyu    *yirru*    ngunhaa    *yirru*,    ngayalyu    *yirru*."  
       this:NOM            that:NOM            cousin
- (b) warntitha-**rninyji**    ngunhaa    nhawu-waa.  
       throw-FUT            that:NOM    see-PURP:SU=OBJ
- (c) thaapuwa            ngunhaa    manku-wala.  
       'rotten.mouth'    that:NOM    grab-PURP:DS

- (d) nhawu-layi ngurnu.  
look-FUT that:ACC
- (e) nhawu-layi yilhi-i-l juwayu-la-a.  
look-FUT chip-ACC-THEN hand-LOC-ACC
- (f) nhawu-layi wirra-a.  
look-FUT boomerang-ACC
- (g) “piyuwa yirru, ngayalyu yirru. nhiyu yarta yirru.”  
nothing cousin this:NOM other
- (a) “This is the one, cousin.”
- (b) He<sub>a</sub> threw it so [he<sub>b</sub>] could see it.
- (c) So that ‘rotten mouth’ picked it up.
- (d) He<sub>b</sub> looked at it.
- (e) Looked at the chips then, in his hand.
- (f) Looked at the boomerang.
- (g) “No, cousin. This is a different one.”

The sequential inflection is also used to code the next event in an ordered sequence. The ‘sequential’ marked event is strongly dependent on the completion of the preceding event (25).

- (25) (a) ngarri-ngka-rru tharrwa-rninyji,  
ashes-LOC-NOW put-FUT
- (b) thurlwa-rninyji kampa-lha-a-rru,  
pull.out-FUT cook-PAST-ACC-NOW
- (c) palwaru, wurnta-rninyji-rru ngurnaa mirntirimarta-a,  
okay cut-FUT-NOW that:ACC goanna-ACC
- (d) nyini-rrawaara, mungka-l.yarra-rru ngali wartakartara,  
sit-SEQ eat-CTEMP-NOW idlinc facing
- (e) karlwi-rrawaara winya-rru.  
get.up-SEQ full-NOW
- (a) Put it in the ashes,
- (b) pull it out once it’s cooked now.
- (c) okay, now cut up that goanna,
- (d) **and then** we’ll sit and eat it now, facing one another,
- (e) **and then** get up, full now.

A range of adverbials and clitics assist in the moving forward of the narrative, some of which have been illustrated in the preceding examples. These include:

|                |                   |  |
|----------------|-------------------|--|
| <i>-rru</i>    | -NOW              | ● resets the point of temporal reference in narrative                          |
| <i>-l</i>      | -THEN             | ● marks a temporal disjunction between the marked event and those preceding it |
| <i>waruu</i>   | ‘still’           | ● indicates persistence of a state or train of events                          |
| <i>ngartil</i> | ‘next, again’     | ● introduces a new event, often a repeat of a previous event                   |
| <i>wuraal</i>  | ‘alright’         | ● marks an ‘evaluative pause’ in the sequence                                  |
| <i>piyuwa</i>  | ‘finish, nothing’ | ● indicates (‘evaluative’) closure of a train of events                        |

These elements mark the status of the event in the clause in which they occur to the wider narrative. In the same way, the most common temporal deictic adverbial expression, *ngurnu-nguru* (that:OBL-ABL) ‘after that’, introduces a clause which follows a sequence of narrative events or an understood as established state of affairs (see (43) below).

4.1.2. *Relative time* The coding of a relative time relation between two clauses usually involves coding one as subordinate to the other. Depending on the relative temporal relation, that coding involves one of a number of choices of non-main clause pattern.

The clearest examples involve coding the non-main (supporting) clause with a locative (‘while’) complementizer. This clause may precede (26) or follow (27) the matrix clause.

- (26) [wirra-a                    yanga-lalha-la,    warruwa-ngara],    panyi-lalha  
 boomerang-ACC    chase-PAST-LOC    devil-PL                    tread-PAST  
 nhartu-ngara-a            kalyaran-ngara-a.  
 something-PL-ACC    tree-PL-ACC  
 While chasing the boomerang, the devils, [they] trampled the trees and everything.
- (27) ngayu    nhawungarra-ma-lalha    ngurnu    pawulu-u,    [ngangka  
 1sg:NOM    look.after-CAUS-PAST    that:ACC    child-ACC    mother  
 puni-lha-la            thawun-mulyarra].  
 go-PAST-LOC    town-ALL  
 I looked after that child, while (his/her) mother went to town.

Clauses including a past or passive perfective marked verb with an ablative (‘after’) complementizer describe an event which is over and completed before the matrix clause event begins.

- (28) [kulhawulha-npa-lha-**nguru**], [ngayi-lha-**nguru**-rru], karlwa-layi  
 heaped.up-INCH-PAST-ABL cry-PAST-ABL-NOW get.up-FUT  
 mirntiwul.

together

Having come together in a heap, now after crying, they get up together.

As might be expected, adjoined relative clauses coded with the (same subject) contemporaneous inflection describe events that take place in the same time frame as the main clause. However, while in many instances of their use these constructions describe contemporaneous events, they are usually amenable to more specific classification as same-event addition or elaboration (see §4.4).

4.1.3. *Conditional* Conditional constructions are coded by the use of the particle *wii* ‘maybe, if’. The particle has a number of functions. In addition to its use in conditionals, it is used as a NP conjunction ‘and/or’. The conditional construction typically comprises an initial (supporting) clause specifying the condition and the *wii* particle usually follows the verb or nominal predicate in the condition clause (29), but may follow an adverbial such as *ngartil*, ‘again’ (30). In negative conditionals, the particle follows the negative (31). The supporting clause is non-past, the result clause is most often in the future—consistent with the use of this inflection in unmarked narrative temporal succession.

- (29) nganamarnu **wii** pithirri-npa-rra **wii**, ngurnaa  
 anyone if chill-INCH-CTEMP if that:ACC  
 paya-rninyji jami-i.  
 drink-FUT medicine-ACC

If anyone has a chill, they drink that medicine.

- (30) ngaliwa nhawu-layi ngurnaa kanyara-a ngartil **wii**,  
 iplinc see-FUT that:ACC man-ACC again if  
 punga pangkira-a paju-rru.  
 pot-bellied-ACC REAL-NOW

If we see that man again he’ll be very round in the guts.

- (31) Ngayu jirli mir.ta **wii** panyu, puni-rra  
 1sg:NOM arm not if good go-CTEMP  
 yawarrunyja-l.yarra murla-ngara-a.  
 miss-CTEMP meat-PL-ACC

If my arm is no good, I’ll continue missing (not spearing) meat.

Example (32) presents a more complex example combining a sequence of relative time conditional constructions.

- (32) (a) ngunhaa pilakurta piyuwa-npa-lha-la wii,  
 that.NOM carpenter finish-INCH-PAST-LOC if  
 nhurnti-npa-lha-la wii.  
 dead-INCH-PAST-LOC if
- (b) ngana-rru kana yilhi-i mir.ta wii murnta-lalha  
 who-NOW RHET chip-ACC not if take.from-PAST  
 ngurnaa pilakurta-a.  
 that:ACC carpenter-ACC
- (c) jalya-rru nyina-marri-layi,  
 useless-NOW sit-COLL-FUT
- (d) mir.ta wii yungku-yangu yilhi-i pilakurta-lu.  
 not if give-PASS:PERV chip-ACC carpenter-EFF
- (a) If after that carpenter has gone, if after he's died,  
 (b) what if no one has taken the chips from the carpenter (learnt how to carve),  
 (c) they'll all be useless,  
 (d) if they haven't been given the chips by the carpenter.

Example (33) presents a counterfactual conditional. This has the same structure as the conditional presented above but has a condition clause in the past tense.

- (33) ngunhaa nhawu-lha wii ngali-i karri-lha-a,  
 that:NOM see-PAST if 1duinc-ACC stand-PAST-ACC  
 ngunhaa warta-a-rru purra-rninyji ngali-i.  
 that:NOM forehead-ACC-NOW hit-FUT 1duinc-ACC  
 If he had seen us standing (here), he would have hit us both in the forehead.

Example (34) also appears to be interpreted as a counterfactual conditional though the condition clause unexpectedly includes the negative particle as well as the *wii* 'maybe, if' particle. The result clause uses the 'counterfactual' inflection.

- (34) nyingkurlu-lpurtu warnu, mir.ta wantha-rralha yawarnu-u wii,  
 firstly-COMPLEM ASSERT not put-PAST shelter-ACC if  
 panyu-l nyina-marni wungku-ngka, piyuwa wurtu!  
 good-THEN sit-CONTR windbreak-LOC finish HYPOTH  
 First, she didn't put up a shelter, if (she had) she would have been good then, in a windbreak.

#### 4.2. Consequence

4.2.1. *Cause* Clauses describing the cause of an event most often involve either the past tense inflection or the passive perfective inflection denoting a



past completed event. The supporting clause describing the cause often follows the focal clause and the interruption of the known sequence of events provides the implicature leading to the causal interpretation. Examples (35) and (36), which involve an ablative complementizer, can be compared with the relative time constructions such as that in (28) above.

- (35) ngayu jina-rru malyarra-rnuru, puni-lha-nguru jurrwalyi-la.  
 1sg:NOM foot-NOW sore-PRES go-PAST-ABL heat-LOC  
 My foot is sore now, **from** having gone in the heat.

- (36) ngayu malyarra-l.yarra-rru puni-nguru,  
 1sg:NOM sick-CTEMP-NOW go-PRES  
 nguritha-lalha-nguru ngurnaa nhurriira-a kuyil-yu  
 smell-PAST-ABL that:ACC stinking-ACC bad-ACC  
 I'm sick now, **from** having smelt that bad stinking thing.

In other examples, the temporal disjunction leading to the interpretation of a cause relation is assisted by the temporal clitic *-l* 'THEN', which marks a temporal separation between two events.

- (37) jalya-ngara-l karlwa-lalha yilangu. yilhi-i  
 rubbish-PL-THEN grow.up-PAST here chip-ACC  
 warntitha-rralha puyila-lpurtu-l.  
 throw-PAST far-COMPLEM-THEN  
 It was rubbish grew here then. Because the chips had been thrown far away.

- (38) ngawu, nganarna nhuura, kuliya-lalha ngurnaa marrari-i  
 yes 1plexc know hear-PAST that:ACC word-ACC  
 ngulu kanyara-lu yar.ta-ngku-l.  
 that:EFF man-EFF other-EFF-then  
 Yes, we know, because we heard the news [brought] by that other man then.

4.2.2. *Purpose and result* As in many Australian languages, Martuthunira has specific 'purposive' verb inflections used to code purpose and result clauses. The specific purpose relation is the most common interpretation of the same-subject purpose clauses (17) where these have an animate subject. The subject=object (7, 18, 24) and different-subject purpose clauses (19, 24) more clearly code the result relation. This is especially so for different-subject purpose clauses, which need not share an argument with the matrix clause (39, 40).

- (39) nhuwana mirntiwul kanarri-layi pawulu-thurti wartirra-thurti  
 2pl together come-FUT child-CONJ woman-CONJ

nhawu-lu, ngayu patha-**rrwala** ngulangu Kawuyu-nguru.  
 see-PURP:SS 1sg:NOM throw-PURP:DS there name-ABL  
 You all come to see, children and women and all, **and then** I'll throw  
 them there from Kawuyu hill.

- (40) ngartil thawu-lalha, ngartil waruul-purtu ngunhu-ngara  
 again send-PAST again still-COMPLEM that:NOM-PL  
 yanga-lwala.  
 chase-PURP:DS  
 Again he sent it, **and** so once again they chased it.

#### 4.3. Possible consequence

Possible consequence relations are coded by specific 'lest' verbal inflections, as the following examples show. The 'lest' clause, which always describes an outcome that is seen to be undesirable, may be marked as a dependent as in (41), or may be independent (42).

- (41) mir.ta wanta-rninyji murla-a yakarrangu-la, puwa-nga-wirri-i.  
 not leave-FUT meat-ACC sun-LOC rotten-INCH-LEST-ACC  
 Don't leave the meat in the sun **or** it'll go rotten.
- (42) ngayu jarraa-lalha nganaju-u mimi-wu-u muyi-i,  
 1sg:NOM tie.up-PAST 1sg:GEN-ACC uncle-GEN-ACC dog-ACC  
 yanga-lwirri ngurnaa.  
 follow-LEST that:ACC  
 I tied up my uncle's dog, **lest** it follow him.

#### 4.4. Addition/elaboration

Current analysis of the Martuthunira corpus does not reveal clear distinctions between unordered addition, same-event addition, and elaboration. The usual pattern of elaboration involves the use of adjoined relative clauses in which the verb is marked with the 'contemporaneous' inflection. This marks the clause as dependent and specifies a same-subject constraint between main and dependent clause. The contemporaneous inflection does not bear an independent TAM specification but assumes this from the main clause. A common pattern is for one or more elaborating clauses to be introduced by one of a small set of 'copula' verbs: *nyina-Ø* 'sit', *karri-Ø* 'stand', *wanti-Ø* 'lie', and *puni-Ø* 'go', which provide TAM specification. Some examples are given below.

- (43) ngurnu-nguru-wa, pintirrijila ngunhu-ngara nyina-lha,  
 that:OBL-ABL-YK separated that:NOM-PL be-PAST

ngartil, panyu-*rr*i-*rra*-*rru*, panyu-*rr*i-*rra*-*rru*  
 next good-INVOL-CTEMP-NOW good-INVOL-CTEMP-NOW  
 kanyara-*npa*-*rra*-*rru* puni-*rra*, warruwa-ngara-lwa warruwa-ngara,  
 human-INCH-CTEMP-NOW go-CTEMP devil-PL-YK devil-PL  
 panyu-*npa*-*rra*-*rru* puni-*rra* kanyara-*npa*-*rra*-*rru*.  
 good-INCH-CTEMP-NOW go-CTEMP human-INCH-CTEMP-NOW  
 After that, they were separate, and then they [started to] become good  
 now, they got better now, that's the devils, you know, they were  
 becoming human.

- (44) nganarna jarraa-lalha, ngunhu pawu wanti-wala panyu-ngka-l  
 iplexc tie.up-PAST that:NOM father lie-PURP:DS good-LOC-THEN  
 wanti-wala mir.ta wartarta-ma-nngu-*rra*  
 lie-PURP:DS not annoyed-CAUS-PASS-CTEMP  
 nguyirri-wirraa-ma-nngu-*rra*.  
 asleep-PRIV-CAUS-PASS-CTEMP  
 We tied (the dog) up, so Dad could sleep well then, could sleep without  
 being annoyed and being prevented from sleeping.

- (45) ... pawulu-ngara-thurti yanga-rnura, thani-l.yarra,  
 child-PL-CONJ chase-PRES:REL hit-CTEMP  
 mani-ngka-*npa*-*rra*, manku-marni wurla, thampa-*rru*  
 front-LOC-INCH-CTEMP grab-CONTR MIST almost-NOW  
 nhanka thani-nngu-*rra*...  
 neck hit-PASS-CTEMP  
 ... yet the children and all are chasing it, hitting at it, getting in front,  
 trying to grab it, almost getting hit in the neck...

#### 4.5. Contrast

A number of examples of contrastive clause linkage involve the use of the 'present relative' inflection in the focal clause. Normally, verbs bearing the 'present relative' inflection occur in different-subject NP-relative clauses and are then marked with a complementizer case suffix specifying the controlling argument in the main clause (see (16) above). The non-main clause cannot share a subject with the main clause. The examples below show a departure from this usual pattern in that the verb bears no complementizer and there is no control relation between the 'present relative' clause and adjacent clauses.

- (46) warntitha-rralha ngunhaa, ngunhu thaapuwa nhuura-*npa*-nyila.  
 throw-PAST that:NOM that:NOM 'rotten.mouth' know-INCH-PRES:REL  
 He threw them across, but that 'rotten mouth' was starting to realize.

- (47) (a) yanga-rninyji ngurnaa, thani-rninyji-nu, murti-i  
 chase-FUT that:ACC hit-FUT-QUOT speed-ACC  
 kuyilwa-rninyji, manku-layi-l. Piyuwa ngunhu,  
 spoil-FUT grab-FUT-THEN nothing that:NOM  
 puni-nyila ngunhu waruul.  
 go-PRES:REL that:NOM still  
 (b) thampa-rru jirli wurnta-nngu-rra yartapalyu, yanga-lalha  
 almost-NOW arm cut-PASS-CTEMP others chase-PAST  
 ngurnaa, ngunhaa puni-nyila nyingkurlu waruu.  
 that:ACC that:NOM go-PRES:REL in.front still  
 (a) They [want to] chase it, hit it, spoil its speed, then grab it, **but** no,  
 it's still going.  
 (b) Others almost have their arms cut off, chasing that one, **but** it's still  
 going in front.

The 'complementary' clitic, *-lpurtu*, can also allow an interpretation of contrast between the event described in the clause in which it occurs and the preceding clause.

- (48) mirntiwul ngunhu-ngara marrari-i martuthunira,  
 all that:NOM-PL language-ACC Martuthunira  
 nhuyu ngayalyu-ngara yirru-marta-lpurtu marrari-marta.  
 this:NOM devil-PL yirru-COMIT-COMPLEM word-COMIT  
 They were all Martuthunira speakers, but these devils had a word, *yirru*.

#### 4.6. Alternatives

The clearest examples of the 'rejection alternative' relations in the corpus involve the use of positive and negative imperative clauses in sequence. Positive imperatives are marked by the imperative inflection on the verb, negative imperatives by a negative future clause (speakers reject the imperative inflection as impolite). Both orders of positive imperative (focal) and negative imperative (supporting) are possible.

- (49) manku-Ø-rru yirnal-a! mir.ta nyina-layi nhawu-rra  
 grab-IMP-NOW this:DEF-ACC not sit-FUT watch-CTEMP  
 yirla thurlamanta!  
 only staring  
 Grab this fellow! Don't just sit staring!
- (50) mir.ta yirra-marta kalya-rninyji! wurnta-l.yu kurlany-marta!  
 not teeth-COMIT bite-FUT cut-IMP knife-COMIT  
 Don't bite it with your teeth! Cut it with a knife!

4.7. *Manner*

The explicit coding of ‘real manner’ relations, in the few explicit examples occurring in the corpus, involves the use of the predicate demonstrative, *yimpala*, ‘like that’, and/or the indefinite/interrogative demonstrative form, *wantharni* ‘how, what way’ (51).

- (51) purrkuru waruul, wiyaa nhawu-lha-nguru ngurnaa mui-i  
 true still maybe see-PAST-ABL that:ACC dog-ACC  
**wantharni-i** ngurnta-a murtiwarla-a tharnta-a yanga-rnura-a,  
**how-ACC** style-ACC fast-ACC euro-ACC chase-PRES:REL-ACC  
**yimpala**-rru-wa ngunhaa pawulu murtiwarla-npa-lha.  
**like.that**-NOW-YK that:NOM child fast-INCH-PAST  
 True enough, maybe from seeing how that dog runs fast chasing euros,  
 like that the child has become fast.

Example (52) illustrates hypothetical manner, though there are very few clear examples of this in the corpus. The construction involves the predicate demonstrative, *yimpala*, and the semblative indefinite/interrogative, *wantharra* ‘like what’, usually found in nominal constructions, in a ‘contemporaneous’ clause.

- (52) Nhuwana mir.ta nhuura kalya nyina-layi, kuyil paju,  
 2pl not know still sit-FUT bad REAL  
 karimal-karimal paju, karta-nngu-rra **wantharra**,  
 jumpy-jumpy REAL poke-PASS-CTEMP **like**  
**yimpalaa** karta-nngu-rra **wantharra** milhu.  
**like.that** poke-PASS-CTEMP **like** bum  
 You don’t know to sit still, really bad, jumpy as if you are being poked,  
 like you are being poked in the bum.

## 5. Summary

Table 4, presented at the beginning of the last section, summarizes the Martuthunira patterns by clause linking type. Table 5 shows the range of formal patterns (though recall that the patterns described in §4.7 are not included in the tables). The table is in two parts, distinguishing those patterns in which there is a dependency relation between the two clauses—shown either by the choice of non-main clause verb inflection or the selection of a nominal suffix complementizer on the non-main clause verb—from patterns in which there is no such relation. Clauses are shown as either  $[]_{FC}$  (focal

TABLE 5. Clause linking types arranged by form

| FORMAL PATTERN  | LINKING TYPE        | EXAMPLES                   |
|---|---------------------|----------------------------|
| No formal dependency relation between clauses                             |                     |                            |
| [(V-CTEMP)] [V-CTEMP]   | IV                  | 20, 21, 36, 43, 44, 45, 49 |
| [V-INFL <sub>i</sub> ] <sub>SC</sub> [V-INFL <sub>i</sub> ] <sub>FC</sub> | Is                  | 22, 23, 24                 |
| [ <i>ngartil</i> ] <sub>SC</sub> [] <sub>FC</sub>                         | Is                  | 40, 43                     |
| [ <i>ngurnu</i> -ABL] <sub>SC</sub> [] <sub>FC</sub>                      | Is                  | 43                         |
| [V-FUT (- <i>rru</i> )] <sub>SC</sub> [V-FUT- <i>rru</i> ] <sub>FC</sub>  | Is                  | 23                         |
| [] <sub>SC</sub> [-I] <sub>FC</sub>                                       | Is                  | 24e, 47                    |
| [nonpast <i>wii</i> ] <sub>SC</sub> [V-FUT] <sub>FC</sub>                 | Ic (conditional)    | 29, 30, 31, 32             |
| [V-PAST <i>wii</i> ] <sub>SC</sub> [V-FUT] <sub>FC</sub>                  | Ic (counterfactual) | 33, 34                     |
| [] <sub>SC</sub> [V-PRES:REL] <sub>FC</sub>                               | IVc                 | 45, 46, 47                 |
| [] <sub>SC</sub> [- <i>lpurtu</i> ] <sub>FC</sub>                         | IVc                 | 48                         |
| [ <i>mirta</i> V-FUT] <sub>SC</sub> [V-IMP] <sub>FC</sub>                 | Vr                  | 49, 50                     |
| [V-IMP] <sub>FC</sub> [ <i>mirta</i> V-FUT] <sub>SC</sub>                 |                     |                            |
| [] <sub>FC</sub> [-I] <sub>SC</sub>                                       | IIc                 | 37, 38                     |
| [] <sub>FC</sub> [V-LEST] <sub>SC</sub>                                   | III                 | 42                         |
| Dependency relation between clauses                                       |                     |                            |
| [V-FUT/PAST/PASS:PERV-LOC] <sub>SC</sub> [] <sub>FC</sub>                 | Ir ('while')        | 26, 27                     |
| [] <sub>FC</sub> [V-FUT/PAST/PASS:PERV-LOC] <sub>SC</sub>                 |                     |                            |
| [] <sub>SC</sub> [V-SEQ] <sub>FC</sub>                                    | Is                  | 25                         |
| [] <sub>SC</sub> [V-CTEMP] <sub>FC</sub>                                  | Is                  | 20, 21                     |
| [V-PAST/PASS:PERV-ABL] <sub>SC</sub> [] <sub>FC</sub>                     | Ir ('after')        | 28                         |
| [] <sub>SC</sub> [V-PURP:SS] <sub>FC</sub>                                | IIp                 | 17, 39                     |
| [] <sub>SC</sub> [V-PURP:SU=OBJ] <sub>FC</sub>                            | IIr                 | 7, 18, 24b                 |
| [] <sub>SC</sub> [V-PURP:DS] <sub>FC</sub>                                | IIr                 | 19, 24c, 39, 40, 44        |
| [] <sub>FC</sub> [V-LEST-ACC] <sub>SC</sub>                               | III                 | 41                         |
| [] <sub>FC</sub> [V-PAST/PASS:PERV-ABL] <sub>SC</sub>                     | IIc                 | 35, 36                     |

clause) or []<sub>SC</sub> (supporting clause), with any further specification of the form of the clause shown inside the brackets in bold face font. The table also cross-references illustrative examples.

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# The Semantics of Clause Linking in Korean

HO-MIN SOHN

## 1. Background and typological profile

Korean is spoken natively by some 70 million Koreans on the Korean peninsula (North and South Korea) and as a second language by many overseas Koreans.<sup>1</sup> Korean is typologically similar to Japanese. This includes similarity in clause linking type. Although some 65 per cent of the Korean vocabulary items are Sino-Korean, there is no genetic or typological relationship between Korean and Chinese.

The most salient typological characteristics of Korean grammar are (i) AOV- and SV-order syntax, (ii) rich agglutinative morphology, and (iii) the intricate honorific system. Due partly to these basic characteristics, Korean manifests many specific features including the following:

- (1) (a) Korean allows pre-predicate NP constituents to be scrambled for topic continuity, focus, or stylistic purposes.
- (b) Korean is postpositional in the use of nominal particles and inflectional suffixes.
- (c) Korean is head final, requiring all modifiers, including adverbials, determiners, and non-main clauses, to precede their heads.
- (d) Korean allows for multiple-subject and multiple-object constructions, as in:<sup>2</sup>

John i nwun i han-ccok i ppalkah-ta  
 John s eye s one-side s red-DEC  
 John's one eye is red.

<sup>1</sup> I am grateful to Bob Dixon and Sasha Aikhenvald for inviting me to the Research Centre for Linguistic Typology to conduct research on Korean and participate in the present workshop. I also appreciate their valuable comments on the preliminary version of this chapter.

<sup>2</sup> All Korean examples in this chapter are transcribed in the Yale Romanization system.



John i thokki lul kkoli lul kkuth ul cap-ass-ta  
 John A rabbit o tail o end o hold-PAST-DEC  
 John grasped the end of the rabbit's tail.

- (e) Korean allows major sentential constituents, such as subject and object, to be omitted if recoverable from discourse contexts.
- (f) Korean has hundreds of inflectional suffixes that mark grammatical categories, relations, and functions. Frequently suffixes occur one after another in a long sequence.
- (g) All Korean predicates (verbs, adjectives, and copulas) are bound in that they cannot be used without a sentence or clause ender.
- (h) Korean has a rich set of morphosyntactic and lexical (e.g., nouns, pronouns, verbs, particles, address-reference terms) devices to show social relationships between the speaker and the addressee and between the speaker and the referent(s).

Nine word classes are recognized: Noun, Pronoun, Numeral, Verb, Adjective, Copula, Determiner, Adverb, and Particle. Noun, Verb, Adjective, and Adverb are open classes. Noun, Pronoun, and Numeral function as heads of NPs, whereas Verb, Adjective, and Copula function as heads of predicates, inflecting in terms of tense, aspect, modality, mood, and sentence or clause type. Determiner (including demonstratives and specifiers) modifies nominals, while Adverb modifies predicates, noun phrases, clauses, and sentences. Particle marks case, delimiter, conjunctive, and complement functions.

## 2. Structures of main and non-main clauses

The basic distinctions between a main and a non-main clause in Korean are whether the clause takes a sentence ender (in a main clause) or a non-main clause ender. Sentence enders occur in a sentence-final position. Canonical sentence enders in their non-past forms are given in Table 1.<sup>3</sup>

A clause with a sentence ender is still not a main clause if it is followed by the conjunctive particle *man(un)* 'but' or the quotative particle *ko* 'that' (indirect quotation) or *lako/hako* 'saying that' (direct quotation). Thus, the

<sup>3</sup> Note that there are many alternating (slashed or parenthesized) forms in Table 1 and elsewhere. These are in general due to either vowel harmony (e.g., *-a* or *-ayo* after a syllable with *a* or *o* and *-e* or *-eyo* otherwise) or the opening or closing of the preceding syllable (the longer form of a pair, such as *-nunta*, *-supnita*, *-nun* (INDIC), or *-ul* (PRS), occurs after a closed syllable and the shorter form, such as *-nta*, *-pnita*, *-n*, or *-l*, occurs after an open syllable). There are syntactically conditioned alternations, as in the prospective *-(u)l* as a relativizer and *-(u)li* as a pre-ender suffix. Free variants exist too, as in the direct quotative particles *lako* and *hako*.

TABLE 1. Sentence enders

| Sentence type<br>Speech level | Declarative  | Interrogative  | Imperative                          | Propositive                  |
|-------------------------------|--|--|-------------------------------------|------------------------------|
| Plain                         | -( <i>nu</i> ) <i>nta</i> [after v]<br>- <i>ta</i> [after ADJ/COP]             | - <i>nunya</i> ; - <i>ni</i> [after v]<br>-( <i>u</i> ) <i>nya</i> ; - <i>ni</i> [after ADJ/<br>COP] | - <i>ela/ala</i> ;<br>- <i>kela</i> | - <i>ca</i>                  |
| Intimate                      | - <i>e/a</i>   | - <i>e/a</i>   | - <i>e/a</i>                        | - <i>e/a</i>                 |
| Familiar                      | - <i>ney</i>   | - <i>nunka</i> [after v]<br>-( <i>u</i> ) <i>nka</i> [after ADJ/COP]                                 | - <i>key</i>                        | - <i>sey</i>                 |
| Blunt                         | -( <i>u</i> ) <i>o</i> [after v]<br>-( <i>s</i> ) <i>o</i> [after ADJ/<br>COP] | -( <i>u</i> ) <i>o</i> [after v]<br>-( <i>s</i> ) <i>o</i> [after ADJ/COP]                           | -( <i>u</i> ) <i>o</i>              | -( <i>u</i> ) <i>psita</i>   |
| Polite                        | - <i>eyo/ayo</i>   | - <i>eyo/ayo</i>   | - <i>eyo/ayo</i>                    | - <i>eyo/ayo</i>             |
| Deferential                   | -( <i>su</i> ) <i>pnita</i>  | -( <i>su</i> ) <i>pnikka</i>   | -( <i>u</i> ) <i>sipsio</i>         | -( <i>u</i> ) <i>sipsita</i> |

necessary and sufficient condition for a clause to be of main clause type is that it must have a sentence ender without any non-main clause marker following.

Non-main clauses in Korean can be classified into the following four types: conjunctive, complement, relative, and nominalized (Sohn 1999: 302–26). These clause types are distinguished by the respective clause enders, as illustrated in (2).

- (2) (a) conjunctive clause—its predicate stem is followed by a conjunctive ender: e.g., -*ko* ‘and’, -*ese/ase* ‘and so’, -(*u*)*myen* ‘if’, -(*u*)*l ttay* ‘when’. Or its finite predicate form (with a sentence ender) is followed by the conjunctive particle *man(un)* ‘but’.
- (b) complement clause—its predicate stem is followed by a complementizer ender: e.g., causative -*key*, habitual -*kon(un)*, infinitive -*e/a*. Or, in indirect quotation, its finite predicate form (plain-level only) is followed by the indirect quotative particle *ko* ‘that’; and in direct quotation, its finite predicate (all levels) is followed by the direct quotative particle *hako* or *lako* ‘saying that’.
- (c) relative clause—its predicate stem is followed by a relativizer ender: past or perfective -(*u*)*n* (after v), non-past -*nun* (after v) and -(*u*)*n* (after ADJ/COP), prospective -(*u*)*l*, retrospective -*ten*.
- (d) nominalized clause—its predicate stem is followed by a nominalizer ender: non-factive -*ki*, factive -(*u*)*m*, negative -*ci* (occurs before a negative predicate).

Both main and non-main clauses can take one or more pre-ender suffixes such as (1) subject honorific suffix *-(u)si*, (2) tense-aspect suffix *-ess/ass* (past or perfective) or *-ess/ass-ess* (past-past or past perfective), (3) modal suffix *-keyss* (speaker's volition or conjecture), and (4) mood suffix *-(nu)n/-ni* (indicative), *-te/ti* (retrospective), *-si* (requestive), or *-(u)l/(u)li* (prospective). These suffixes occur in that order.

While the subject honorific suffix *-(u)si* can freely occur in the predicates of both main and non-main clauses, the addressee honorific suffix *-(su)p* occurs only as a component of deferential-level sentence enders. Up until the early twentieth century, however, the addressee honorific suffix *-(sa)o(p)* (equivalent to the current *-(su)p*) was used in conjunctive and nominalized clauses (but not in other types of non-main clauses). Sentence (3a) is an old expression, while (3b) is its contemporary equivalent.

- (3) (a) [ce nun cal iss-sao-ni] ansimha-si-p-sio  
           I TOP well stay-AH-as rest.assured-SH-AH-IMP  
           I am fine, so please put your mind at rest.  
       (b) [ce nun cal iss-uni] ansimha-si-p-sio

The notion of what constitutes a non-main clause is not always straightforward, because some structures with a non-main clause ender do not appear to be a clause. Auxiliary and serial predicate constructions, which occur productively in Korean, are typical examples, as illustrated in (4).

- (4) Mia nun hakkyo lo *kel-e*            *ka-a*            *pe-li-ess-eyo*  
       Mia TOP school to walk-INFIN go-INFIN finish-PAST-POL  
       Mia walked away to school.

Three verb stems occur in this sentence: *kel*, *ka*, and *pe-li*. In Korean grammar, *kel-e ka* 'go on foot' is regarded as a serial verb construction, and *pe-li* 'finish up' (derived from the verb 'throw away') as an auxiliary verb. The serial construction is similar in form to a conjunctive clause and the auxiliary construction to a main clause. Should we treat sentence (4) as tricausal, biclausal, or monoclausal in terms of clause linking? I will assume that the sentence is monoclausal because there is syntactic and semantic evidence that serial verbs have been lexicalized and auxiliary verbs function as aspectual or modal markers.

As indicated earlier, understood elements are generally omitted in Korean discourse. This also applies to linked clauses. Where pronominalization is appropriate in English, omission usually takes place, as observed in (5).



Sentence (7) may be rendered variously as (10a), (10b), or (10c) as well, with a conjunctive adverb such as *kulehciman*, *haciman*, *kulayto*, or *kulena*, all meaning ‘but; yet; however’.

- (10) (a) [John un olay tokile lul payw-eyo.]<sub>SC</sub> **kulehciman**  
           John TOP long German o study-POL **however**  
           cal mos hay-yo  
           well not do-POL
- (b) [John un olay tokile lul paywu-nuntey]<sub>SC</sub> **kulayto**  
           John TOP long German o study-given.that **but.still**  
           cal mos hay-yo  
           well not do-POL
- (c) [John un olay tokile lul paywu-ciman]<sub>SC</sub> **kulena**  
           John TOP long German o study-though **but**  
           cal mos hay-yo  
           well not do-POL

Construction (10a) is considered as two simple sentences, each ending in a sentence ender, each accompanied by an intonation unit of its own. There is a sentence-final pause before the conjunctive adverb. In (10b), the “background providing” conjunctive ender *-nuntey* ‘given that; and; but’ is attached to the Supporting clause (hereafter, SC), whereas the Focal clause (hereafter, FC) is preceded by a conjunctive adverb. In (10c), the SC is followed by a “Contrast” ender and the FC is preceded by a “Contrast” adverb, a strategy to give extra focus on the contrastiveness. In (10b) and (10c), one intonation unit encompasses both clauses. In general, native speakers perceive clause linking with a conjunctive adverb or adverbial phrase as slightly more formal, emotive, and/or assertive than the linking with a corresponding clause ender alone. Usages of the two devices are not always the same.

Sentence (8) may also be rendered as (11) in view of the parallel information structure (FC + SC) in both languages.

- (11) John un tokile lul cal mos hay-yo. [olay  
       John TOP German o well cannot do-POL long  
       paywu-ciman (yo)]<sub>SC</sub>  
       study-though POL

Structures like (11), although frequently used in conversation, are viewed intuitively as a reversed sequence with the conjunctive clause supplied as an “afterthought” addition. Notice that the FC is a complete sentence, whereas the detached conjunctive clause lacks a sentence ender. The fact that the

detached clause takes an optional polite particle and requires a falling intonation does not justify that it is a complete sentence.

In short, Korean is a typical agglutinative, predicate-final, and head-final language. The main clause follows its non-main clause unless the latter is expressed as an afterthought addition.

- (12) (a) canonical order: [non-main clause] + [main clause]  
 (b) afterthought: [main clause] + [non-main clause]

Clause linking is actualized most naturally and productively by the conjunctive clause type, a prototypical device of linking clauses. This type (type 1) is formed by attaching a conjunctive ender to the predicate of the non-main clause as observed in (2a) and illustrated in (9). There are several structural patterns of conjunctive enders.

- (13) (a) predicative suffixes [SUF]: e.g., *-ko* 'and', *-(u)na* 'but', *-(u)nikka* 'because', *-(u)myen* 'if', *-(u)myense* 'while', *-koca* 'in order to', *-telato* 'even though'
- (b) conjunctive particle: the only form is *man(un)* 'but', as in (5b). The form *man* is slightly more casual than *manun*
- (c) relativized postpositional phrases [R/PRS + N + (case particle)]: e.g., *-ul ttay (ey)* (PRS time at) 'when', *-(n)un tey* (R place) 'given that', *-(u)n twi (ey)* (R back at) 'after'
- (d) nominalized postpositional phrases [NOMZ + (N) + case particle]: e.g., *-ki ttaymwun ey* (NOMZ cause for) 'because', *-ki-ey* (NOMZ-at) 'as; since; because', *-(u)m-ulo* (NOMZ-with) 'as; due to'
- (e) conjunctive predicate phrases [NOMZ/INFIN/SUF + V/ADJ + SUF]: e.g., *-ki wihay(-se)* (NOMZ serve-for) 'for the purpose of', *-e/a po-assca* (INFIN try-even.though) 'even though (one) tries to', *-ko na-se* (and come.out-and) 'after'
- (f) extended conjunctive phrases: e.g., *-(u)l-kka-po-a(se)* (PRS whether-think-and) 'for fear that', *-(u)m ey ttal-a(se)* (NOMZ at follow-and) 'according to; as (a result of)', *-(u)l ppun an-i-la* (PRS being.only not-be-and) 'not only ~ but'

The second productive clause linking type (type 2) is to use conjunctive adverbials (including adverbs and adverb phrases), which precede main clauses. These main clauses are predominantly FCs. That is, two related sentences or clauses can be linked by a conjunctive adverbial, which is a part of the main clause, as illustrated in (10). There are nearly as many

conjunctive adverbials as there are conjunctive enders, in that the majority of such adverbials are made up of the anaphoric demonstrative *ku* 'that' or its compound (*ku-li-ha* 'do so' or *ku-le-ha* 'be so') + a relevant conjunctive ender.<sup>6</sup> In addition, there are some other conjunctive adverbials which do not employ the *ku* demonstrative.

Examples of lexicalized conjunctive adverbs with *ku* include: *kuliko* (< *ku-li-ha-ko* (that-along-do-and)) 'and', *kulayse* (< *ku-li/le-hay-se* (that-along/like-do/be-as)) 'thus', *kulena* (< *ku-li/le-ha-na* (that-along/like-do/be-but)) 'but', *kulehcsiman* (< *ku-li/le-ha-ciman* (that-along/like-do/be-though)) 'but; however', *kulayto* (< *ku-li/le-hay-to* (that-along/like-do/be-even.though)) 'even so', *kulenikka* (< *ku-li/le-ha-nikka* (that-along/like-do/be-because)) 'therefore', *kulemyen* (< *ku-li/le-ha-myen* (that-along/like-do/be-if)) 'if so', *kulayya* (< *ku-li/le-hay-ya* (that-along/like-do/be-if.only)) 'if only so', *kutaylo* (< *ku-taylo* (that-like/as)) 'like that', *kuttay* (< *ku-ttay* (that-time)) 'then; at that time', *kuhwu* (< *ku-hwu* (that-after)) 'after that; then', *kulentey* (< *ku-le-ha-n tey ey* (that-like-be-R place at) 'at such a place') 'however; but; by the way', and *kulemulo* (< *ku-le-ha-m ulo* (that-like-be-NOM with)) 'therefore'.

Conjunctive adverbs without *ku* include: *tto* 'also; moreover; besides', *ttonun* (< *tto-nun* (also-TOP)) 'or (else)', *hokun* (< *hok-un* (by.any.chance-TOP)) 'or (else)', *animyen* (< *ani i-myen* (not be-if)) 'if not', *ttalase* (< *ttalu-ese* (follow-and.then)) 'accordingly', *haciman* (< *ha-ciman* (do/be-but)) 'however', *ppuntele* (< *ku-ppun-tele* (that-being.only-together.with)) 'not only that; moreover', and *tewuki* (< *tewuk-i* (more-so.that)) 'furthermore'.

Simple apposition of two sentences without any clause linking marker (type 3) is not typical in Korean. Rare as they may be, there is one frequently used alternating question pattern. The first clause ends in a rising intonation and the second clause a falling intonation, as in (14). Note that a usual yes-no question ends in a rising intonation.

- (14) *khephi tu-si-keyss-eyo*↑ *cha tu-si-keyss-eyo*?↓  
 coffee take-SH-will-POL tea take-SH-will-POL  
 Would (you) like to have coffee, (or) would (you) like to have tea?

Complement, relative, and nominalized clauses do not have a clause linking function. However, these clauses can serve for clause linking by way of clause enders of which they are a part, as observed in (13c, d, e, f) and illustrated in (15). The most frequently used postpositional particle is the locative *ey*, which is frequently omitted.

<sup>6</sup> There are four deictic demonstratives in Korean: *i* 'this' (near speaker), *ku* 'that' (near hearer), *ce* 'that over there', and *enu* 'which' (indefinite question). Among these, *ku* is used most productively as an anaphoric demonstrative (in the sense of 'that which you and I know').

- (15) (a) Relative: [[Kiho ka ka-n]<sub>RC</sub> **twi ey**]<sub>SC</sub> Mia ka  
 Kiho s go-R **back at** Mia s  
 ka-ss-eyo  
 go-PAST-POL  
 After Kiho went, Mia went.
- (b) Nominalized: [[Kiho ka ka-ki]<sub>NC</sub> **cen ey**]<sub>SC</sub> Mia ka  
 Kiho s go-NOMZ **front at** Mia s  
 ka-ss-eyo  
 go-PAST-POL  
 Before Kiho went, Mia went.

In sentence (15a), the relative clause (RC) is embedded in the SC. The combination of the past/perfective relativizer *-(u)n*, temporal/spatial noun *twi* ‘back; after’, and locative particle *ey* functions as a conjunctive ender with the temporal meaning ‘after’. Similarly in sentence (15b), the nominalized clause (NC) is embedded in the SC. The nominalizer suffix *-ki* + temporal/spatial noun *cen* ‘front; before’ + locative *ey* ‘at’ has become a conjunctive ender with the temporal meaning of ‘before’.

#### 4. Semantic types of clause linking in Korean

Table 2 summarizes the non-main clause enders and main clause adverbials in Korean that are characteristic of the semantic types and subtypes defined in Chapter 1 in regard to SCs and FCs. The list is not exhaustive.

The six semantic types and subtypes will be elaborated one by one in what follows.

##### 4.1. Temporal (I)

Temporal linkage of two events, whether it is temporal succession or relative time, is expressed by an SC preceding an FC, with a marker placed in between. Simple apposition is rare in Korean and unnatural if used, except perhaps in a scenario script.

4.1.1. *Temporal succession (Is)* Several conjunctive enders are employed to indicate temporal succession: *-ko* ‘and’, *-kose* (< *-ko-se* (and-then)) ‘and then’, *-ko nase* (< *-ko na-se* (and come.out-then)) ‘and then’, *-ese/ase* ‘and then; and so’, *-teni* (< *-te-ni* (RT-as)) ‘and then’, and *-taka* ‘while doing; and then.’<sup>7</sup> The

<sup>7</sup> In colloquial speech, *-kose* may be contracted to *-ko*, *-ese/ase* to *-e/a*, and *-taka* to *-ta*. Thus, the coordinative *-ko* and the subordinative *-ko* contracted from *-kose* are homonymous. The same is true with the infinitive *-e/a* and the *-e/a* contracted from *-ese/ase*.



TABLE 2. Summary of clause linking in Korean

| Linking type            | §     | Markers (conjunctive enders) in non-main clauses |                              |      | Markers (conjunctive adverbials) in main clauses |                        |      |
|-------------------------|-------|--|------------------------------|------|--|------------------------|------|
|                         |       | Form   | gloss and example no.        | with | Form   | gloss and example no.  | with |
| Is, Temporal succession | 4.1.1 | - <i>ko</i>                                      | ‘and’ (16a; 18b; 19b)        | SC   | <i>kuliko</i>                                    | ‘and’                  | FC   |
|                         |       | - <i>ese/ase</i>                                 | ‘and then’ (17a; 18a; 19a)   | SC   | <i>kulayse</i>                                   | ‘and then’ (21)        | FC   |
|                         |       | - <i>kose</i>                                    | ‘and then’ (18b; 19b)        | SC   | <i>kulikose</i>                                  | ‘and then’ (21)        | FC   |
|                         |       | - <i>ko nase</i>                                 | ‘and then; after’ (18b; 19b) | SC   | i> <i>kuliko nase</i>                            | ‘and then; after that’ | FC   |
|                         |       | - <i>teni</i>                                    | ‘and then’ (20a)             | SC   | <i>kuleteni</i>                                  | ‘and then’             | FC   |
|                         |       | - <i>taka</i>                                    | ‘and then’ (20b)             | SC   | <i>kuletaka</i>                                  | ‘and then’             | FC   |
|                         |       |  |                              |      |  |                        |      |
| Ir, Relative time       | 4.1.2 | -(u)n <i>hwu/twi</i> (ey)                        | ‘after’ (15a; 22c)           | SC   | <i>ku-hwu; ku twi</i> (ey)                       | ‘after that’           | FC   |
|                         |       | -(u)n <i>taum</i> (ey)                           | ‘after’                      | SC   | <i>ku taum</i> (ey)                              | ‘after that’           | FC   |
|                         |       | - <i>ki cen</i> (ey)                             | ‘before’ (15b; 22a)          | SC   | <i>ku-cen</i> (ey)                               | ‘before that’          | FC   |
|                         |       | - <i>ki ey aphse(se)</i>                         | ‘before’                     | SC   | <i>ku ey aphse(se)</i>                           | ‘before that’          | FC   |
|                         |       | -(u)l <i>ttay</i> (ey)                           | ‘when’ (22b)                 | SC   | <i>ku-ttay</i>                                   | ‘then’                 | FC   |
|                         |       | -(u)l <i>mulyep</i> (ey)                         | ‘around when’                | SC   | <i>ku mulyep</i> (ey)                            | ‘about then’           | FC   |
|                         |       | -(u)l <i>cek ey</i>                              | ‘when’                       | SC   | <i>kule-l cek ey</i>                             | ‘at that time’         | FC   |
|                         |       | -(u)l <i>cuum</i> (ey)                           | ‘approx. when’               | SC   | <i>ku cuum</i> (ey)                              | ‘about then’           | FC   |
|                         |       | - <i>ese/ase</i>                                 | ‘when’ (44b)                 | SC   | <i>kulay-se</i>                                  | ‘then’                 | FC   |
|                         |       | - <i>ca(maca)</i>                                | ‘as soon as’                 | SC   | <i>kule-ca(maca)</i>                             | ‘thereupon’            | FC   |
|                         |       | -(u)n/ <i>num cuksi</i>                          | ‘as soon as’                 | SC   | <i>ku cuksi</i>                                  | ‘at that moment’       | FC   |
|                         |       | -(u)n <i>ilay; -(u)n ci</i>                      | ‘since’                      | SC   | <i>ku ilay</i>                                   | ‘since that time’      | FC   |
|                         |       | - <i>ki kkaci</i>                                | ‘until’                      | SC   | <i>kule-n ci</i>                                 | ‘since then’           | FC   |
|                         |       | -(u)l <i>ttay kkaci</i>                          | ‘until; by (the time when)’  | SC   | <i>kule-ki kkaci</i>                             | ‘until then’           | FC   |
|                         |       | - <i>tolok</i>                                   | ‘until the time when’        | SC   | <i>ku ttay kkaci</i>                             | ‘until then; by then’  | FC   |

|                    |       |                                       |                                 |    |                                       |                         |    |
|--------------------|-------|---------------------------------------|---------------------------------|----|---------------------------------------|-------------------------|----|
| Ic,<br>Conditional | 4.1.3 | -(u)n/nun/(u)l<br>tongan (ey)         | ‘while; during (the time when)’ | SC | kule-tolok                            | ‘until then’            | FC |
|                    |       | -(u)mye(nse)                          | ‘while ~ -ing’                  | SC | ku-tongan (ey)                        | ‘during that time’      | FC |
|                    |       | -(u)myen                              | ‘if’ (23a, b; 25a, b, c, d)     | SC | kule-myense                           | ‘while doing/being so’  | FC |
|                    |       | -ketun                                | ‘if’ (23a, b; 25a)              | SC | kule-myen                             | ‘if so’                 | FC |
|                    |       | -tamyen/lamyen                        | ‘if’                            | SC | kule(h)-ketun                         | ‘if so’                 | FC |
|                    |       | -eya/aya(-man)                        | ‘only if’ (24)                  | SC | kuleh-tamyen                          | ‘if so’                 | FC |
|                    |       | -ess/ass-telamyen<br>(counterfactual) | ‘if it were the case that’      | SC | kulay-ya(-man)                        | ‘only if so’            | FC |
|                    |       | -takanun                              | ‘if (one) keeps doing’ (26)     | SC | kulay-ss-telamyen<br>(counterfactual) | ‘if such were the case’ | FC |
|                    |       | -(n)un han                            | ‘as long as’                    | SC | kule-taka-nun                         | ‘if (one) continues so’ | FC |
|                    |       | -ci anh(n)un han                      | ‘unless’                        | SC | kule-(nu)n han                        | ‘as long as it is so’   | FC |
|                    |       | -eto/ato                              | ‘even if’                       | SC | kule-ci anh(n)un han                  | ‘unless it is so’       | FC |
|                    |       | -telato                               | ‘even if’                       | SC | kulay-to                              | ‘even if it is so’      | FC |
|                    |       | -(u)lcilato                           | ‘even if’                       | SC | kule-telato                           | ‘even if it is so’      | FC |
|                    |       | -(u)lmangceng                         | ‘even if’                       | SC | kele-lcilato                          | ‘even if it is so’      | FC |
|                    |       | -(u)ntul                              | ‘even if’                       | SC | kule-lmangceng                        | ‘even if it is so’      | FC |
|                    |       | -(u)lcienceng                         | ‘even if’                       | SC | kule-ntul                             | ‘even if it is so’      | FC |
|                    |       | -e/a po-assca                         | ‘even if (one) tries’           | SC | kule-lcienceng                        | ‘even if it is so’      | FC |
|                    |       |                                       |                                 | SC | kulay-po-assca                        | ‘even if one tries so’  | FC |
|                    |       |                                       |                                 |    | animyen; ani-ketun                    | ‘if not’                | FC |

(Continued)

TABLE 2. Continued

| Linking type | §   | Markers (conjunctive enders) in non-main clauses |                                |      | Markers (conjunctive adverbials) in main clauses |                           |      |
|--------------|-----|--|--------------------------------|------|--|---------------------------|------|
|              |     | Form   | gloss and example no.          | with | Form   | gloss and example no.     | with |
| IIc, Cause   | 4.2 | -ese/ase   | ‘as; since’ (5a; 17b; 44a, b)  | SC   | waynya(ha)myen                                   | ‘because’ (28d)           | SC   |
|              |     | -(u)nikka  | ‘because; since’ (27; 31b)     | SC   | kulayse  | ‘so; for that’            | FC   |
|              |     | -(u)ni   | ‘as; since’ (3a,b)             | SC   | kulenikka  | ‘therefore’               | FC   |
|              |     | -nulako  | ‘while doing’                  | SC   | kuleni   | ‘so’                      | FC   |
|              |     | -ki ttaymun ey                                   | ‘because’ (28a)                | SC   | kule-nulako                                      | ‘while doing so’          | FC   |
|              |     | -(u)mulo   | ‘as; because’                  | SC   | ku ttamun ey                                     | ‘because of that’ (28b,c) | FC   |
|              |     | -kiew; -killay                                   | ‘as; because’                  | SC   | kulemulo   | ‘so; hence; therefore’    | FC   |
|              |     | -(u)n/nun thas ulo                               | ‘owing to’                     | SC   | kule-kiew/killay                                 | ‘that’s why...’           | FC   |
|              |     | -(u)n/nun kolo                                   | ‘as; because’                  | SC   | ku(len) thas ulo                                 | ‘owing to that’           | FC   |
|              |     | -(u)n/nun kkatalok ey                            | ‘for reason that’              | SC   | kulen-kolo                                       | ‘so; hence; therefore’    | FC   |
|              |     | -(u)n/nun mankhum                                | ‘now that’                     | SC   | ku(len) kkatalok ulo                             | ‘for that reason’         | FC   |
|              |     |  |                                |      | kulen mankhum                                    | ‘that being the case’     | FC   |
| IIr, Result  | 4.2 | -ese/ase   | ‘since; as’ (29; 44a)          | SC   | kulayse  | ‘thus’                    | FC   |
|              |     | -(u)n kyelkwa (lo)                               | ‘as a result of’               | SC   | ku kyelkwa (lo)                                  | ‘as a consequence’        | FC   |
|              |     | -(u)m ey ttala(se)                               | ‘according to; as a result of’ | SC   | ttalase  | ‘accordingly’             | FC   |
|              |     | (u)n/nun palam ey                                | ‘as a result of’ (29)          | SC   | ku palam ey                                      | ‘as a result of that’     | FC   |
| IIp, Purpose | 4.2 | -(u)le;-(u)lyeko                                 | ‘(in order) to’ (30a, b)       | FC   | kule-lyeko                                       | ‘to do so’                | SC   |
|              |     | -koca  | ‘wishing to’                   | FC   | kule-koca  | ‘to do so’                | SC   |
|              |     | -key(-kkum)                                      | ‘so that’                      | FC   | kule-key(-kkum)                                  | ‘to do so’                | SC   |
|              |     | -tolok   | ‘so that’ (31a)                | FC   | kule-tolok                                       | ‘to do so’                | SC   |

|                             |     |   |  |  |  |   |  |
|-----------------------------|-----|---|--|--|--|---|--|
|                             |     | - <i>(u)lako</i><br>- <i>ki wihay(se)</i><br>- <i>(u)l mokcek ulo</i><br>- <i>(u)l seym ulo</i>   | ‘so that’<br>‘in order to’<br>‘in order to’<br>‘with a view to’  | FC<br>FC<br>FC<br>FC                   | <i>kule-lako</i><br><i>kule-ki wihay(se)</i><br><i>ku mokcek ulo</i><br><i>kulel seym ulo</i>  | ‘to do so’<br>‘to do so’<br>‘for that purpose’<br>‘intending to do so’  | SC<br>SC<br>SC<br>SC                         |
| III, Possible consequence   | 4.3 | <i>an ~ -tolok</i><br>- <i>(u)l kyengwu (ey)</i><br>- <i>(u)lkkapoa(se)</i><br>- <i>(u)lkka siph-e(se)</i><br>- <i>(u)lkka ha-ko</i>                  | ‘lest’ (31a)<br>‘in the case that’<br>‘being afraid that’ (32)<br>‘anticipating’<br>‘expecting to do’                                      | SC<br>SC<br>SC<br>SC<br>SC             | <i>kule(h)-ci anhtolok</i><br><i>kulel kyengwu (ey)</i><br><i>kule-lkkapoa(se)</i><br><i>kule-lkka siph-e(se)</i><br><i>kule-lkka ha-ko</i>                                | ‘lest it should do/be so’ (31b)<br>‘in that case’<br>‘fearing it may be so’<br>‘anticipating that’<br>‘expecting that’                                | FC<br>FC<br>FC<br>FC<br>FC                   |
| IVu,<br>Unordered addition  | 4.4 | - <i>ko</i><br>- <i>(u)mye</i>  | ‘and’ (16b,c; 33)<br>‘and’ (33)  | n/a<br>n/a                             | <i>kuliko</i><br><i>ttohan</i>   | ‘and’<br>‘also; and’  | n/a<br>n/a                                   |
| IVs,<br>Same-event addition | 4.4 | - <i>ko</i><br>- <i>keniwa</i><br>- <i>(u)l ppun anila</i><br>- <i>(u)l ppuntele</i><br>- <i>(u)l swulok</i><br>- <i>nulako</i><br>- <i>(u)myense</i> | ‘and’ (34a)<br>‘as well as’<br>‘not only ~ but’<br>‘not only ~ but’<br>‘the more ~ the more’<br>‘while doing’ (34b)<br>‘while doing’ (34c) | SC<br>SC<br>SC<br>SC<br>SC<br>SC<br>SC | <i>kuliko</i><br><i>kule(h)-keniwa</i><br><i>ku ppun anila</i><br><i>(ku) ppuntele</i><br><i>kulel swulok</i><br><i>kule-nulako</i><br><i>kule-myense</i><br><i>tewuki</i> | ‘in addition’<br>‘not only that’<br>‘not only that’<br>‘not only that’<br>‘the more it is so ~’<br>‘while doing so’<br>‘while doing so’<br>‘moreover’ | FC<br>FC<br>FC<br>FC<br>FC<br>FC<br>FC<br>FC |

(Continued)

TABLE 2. Continued

| Linking type        | §   | Markers (conjunctive enders) in non-main clauses |                              |      | Markers (conjunctive adverbials) in main clauses |                        |      |
|---------------------|-----|--|------------------------------|------|--|------------------------|------|
|                     |     | Form   | gloss and example no.        | with | Form   | gloss and example no.  | with |
| IVe,<br>Elaboration | 4.4 | -(n)untey  | 'given that' (10b; 28c; 35)  | SC   | kulentey   | 'by the way; yet'      | FC   |
|                     |     | -(u)n/nun cuk                                    | 'given that'                 | SC   | kulencuk   | 'therefore; then'      | FC   |
|                     |     | -(u)n/nun pa                                     | 'given that'                 | SC   | kulen pa   | 'therefore'            | FC   |
| IVc, Contrast       | 4.4 | man(un) [PART]                                   | 'but' (5b)                   | SC   | kulehcsiman                                      | 'but; however' (10a)   | FC   |
|                     |     | -ciman   | 'but; although' (9; 10c; 11) | SC   | kulena   | 'but' (10c)            | FC   |
|                     |     | -(u)na   | 'but; although'              | SC   | kulayto  | 'but' (10b)            | FC   |
|                     |     | -eto/ato   | '(even) though; but'         | SC   | kule-kenman                                      | 'though'               | FC   |
|                     |     | -kenman  | 'though'                     | SC   | kule-toy   | 'but'                  | FC   |
|                     |     | -toy   | 'but'                        | SC   | kulentey-to                                      | 'despite that fact'    | FC   |
|                     |     | -(n)untey-to                                     | 'despite the fact that'      | SC   | haciman  | 'however'              | FC   |
|                     |     |  |                              |      | hena   | 'but'                  | FC   |
|                     |     |  |                              |      | taman  | 'however'              | FC   |
|                     |     |  |                              |      | tewuki   | 'furthermore'          | FC   |
| Vd,<br>Disjunction  | 4.5 | -kena  | 'or' (36; 39a, b)            | n/a  | kule-kena  | 'or'                   | n/a  |
|                     |     | -tunci   | 'or' (36)                    | n/a  | kule-tunci                                       | 'or'                   | n/a  |
|                     |     | two clause                                       | rising intonation (clause 1) | n/a  | hokun; ttonun                                    | 'or; or else' (36)     | n/a  |
|                     |     | apposition only                                  | + falling intonation         |      | animyen  | 'or; or else' (36; 40) | n/a  |
| Vr, Rejection       | 4.5 | in questions                                     | (clause 2) (14; 40)          |      |  |                        |      |
|                     |     | -(u)n/nun taysin                                 | 'instead of' (37a)           | SC   | ku taysin (ey)                                   | 'instead' (37c)        | FC   |
|                     |     | (ey)   |                              |      |  |                        |      |
|                     |     | an ~ ko  | 'not ~ (but)' (37b, c)       | SC   | kule(h)-ci anh-ko                                | 'not doing/being so'   | FC   |

|                                |     |  |                                    |          |  |  |          |
|--------------------------------|-----|--|------------------------------------|----------|--|--|----------|
| Vs,<br>Suggestion              | 4.5 | - <i>nuni</i> ( <i>pota</i> )<br>- <i>nun kes pota</i> | ‘rather than’(38)<br>‘rather than’ | SC<br>SC | <i>kule-nuni</i> ( <i>pota</i> )<br><i>kule-nun kes pota</i> | ‘rather than doing so’<br>‘rather than doing so’ | FC<br>FC |
| VIr, Real<br>manner            | 4.6 | -( <i>u</i> ) <i>n/nun taylo</i>                       | ‘as; according to’ (41a)           | SC       | <i>kutaylo</i>   | ‘like that’                                      | FC       |
|                                |     | -( <i>u</i> ) <i>n/nun kes chelem</i>                  | ‘as; like; so ~ as’                | SC       | <i>ku chelem</i>   | ‘like that’                                      | FC       |
|                                |     | -( <i>u</i> ) <i>n/nun kes kathi</i>                   | ‘as; like; so ~ as’                | SC       | <i>ku kathi</i>  | ‘like that’                                      | FC       |
|                                |     | (-( <i>u</i> ) <i>n/nun</i> )- <i>tusi</i>             | ‘like; as if’ (41b)                | SC       | <i>kele(h)-tusi</i>  | ‘like that’                                      | FC       |
|                                |     | - <i>tasiphi</i>                                       | ‘as; in the same way that’         | SC       | <i>kule(h)-tasiphi</i>                                       | ‘like that’                                      | FC       |
| VIh,<br>Hypothetical<br>manner | 4.6 | ( <i>machi</i> ) +<br>- <i>tasiphi</i>                 | ‘as if; like’                      | SC       | ( <i>machi</i> ) +<br><i>kuletasiphi</i>                     | ‘as if doing/being so’                           | FC       |
|                                |     | (-( <i>u</i> ) <i>n/nun/(u)l</i> )-<br><i>tusi</i>     | ‘as if’ (42)                       | SC       | <i>kule-(n/nun/l)-tusi</i>                                   | ‘as if so’                                       | FC       |
|                                |     | -( <i>u</i> ) <i>n/nun/(u)l kes kathi/chelem</i>       | ‘as if’ (42)                       | SC       | <i>kule-n/nun/l kes kathi/chelem</i>                         | ‘as if (one) would do so                         | FC       |
|                                |     |  |                                    |          |  |  |          |
| VIw, Ways/<br>means            | 4.6 | - <i>ese/ase</i>                                       | ‘by ~ -ing’(43a)                   | SC       | <i>kulayse</i>   | ‘by doing so’                                    | FC       |
|                                |     | - <i>e/a kaciko</i>                                    | ‘by ~ -ing’ (43b)                  | SC       | <i>kulay-kaciko</i>  | ‘by doing so’                                    | FC       |

basic function of *-ko* is to connect two independent events or states, which may be pragmatically sequential, simultaneous, or independent. Without pragmatic contexts, (16) can be interpreted as (a), (b), and (c).

- (16) Kiho ka nolayha-ko Mia ka chwumchw-eyo  
 Kiho s sing-and Mia s dance-POL  
 (a) Kiho sings and then Mia dances.  
 (b) Kiho sings and Mia dances. (at the same time)  
 (c) Kiho sings and Mia dances. (neutral as to temporal order)

Two events in sequential interpretation (16a) follow the iconicity principle, the first clause (SC) denoting the first occurring event and the second clause (FC) the second occurring event. On the other hand, *-kose* and *-ko nase* uniquely denote temporal sequence. When either of these replaces *-ko* in (16), only the (16a) reading is obtained.

The ender *-ese/ase* ‘and then; and so’ denotes sequential occurrence of two “related” events, with the event of the first clause (SC) functioning as a precondition or cause for the event denoted by the second clause (FC). If the subjects of the two clauses are the same, temporal succession interpretation stands out more conspicuously, as in (17a). If the subjects are different, causal meaning stands out, as in (17b).

- (17) (a) [Kiho ka kongwen ey ka-ase]<sub>SC</sub> nol-ayo  
 Kiho S park to go-and.then play-POL  
 Kiho went to the park and is playing there.  
 (b) [Kiho ka cha lul phal-ase]<sub>SC</sub> Mia ka wul-ess-eyo  
 Kiho A car O sell-and.so Mia s cry-PAST-POL  
 Kiho sold the car, and Mia cried for that.

The suffix *-ese/ase* cannot be used when its clause does not indicate cause or precondition of the event expressed by the following FC. Sentence (18a) is thus not acceptable because there is no such causal or preconditional relation. A similar meaning is expressed by an SC with *-ko*, *-kose*, or *-ko nase*, as in (18b).

- (18) (a) \*[Kiho nun nol-ase]<sub>SC</sub> ca-ss-eyo  
 Kiho TOP play-and.then sleep-PAST-POL  
 Kiho played and then slept.  
 (b) [Kiho nun nol-ko; -kose; -ko nase]<sub>SC</sub> ca-ss-eyo  
 Kiho TOP play-and; -and.then; -and then sleep-PAST-POL  
 Kiho played and (then) slept.

Similarly, compare the two sentences of a minimal pair in (19). Notice that only (19a) indicates the existence of a cause-effect relation between the two clauses. It presupposes that Kiho and Mia went to the movies together because going to the movies was caused or preconditioned by Kiho's meeting with Mia.

- (19) (a) [Kiho nun Mia lul manna-ase]<sub>SC</sub> kukcang ey ka-ss-eyo  
 Kiho TOP Mia o meet-**and.then** theatre to go-PAST-POL  
 Kiho met Mia and then went to the movies (with her).  
 (b) [Kiho nun Mia lul manna-ko; -kose; -ko nase]<sub>SC</sub>  
 Kiho TOP Mia o meet-**and; -and.then; -and.then;**  
 kukcang ey ka-ss-eyo  
 theatre to go-PAST-POL  
 Kiho met Mia and (then) went to the movies (by himself).

The conjunctive ender *-teni* 'and then' requires a non-speaker subject and a past event, as in (20a), due to the retrospective meaning (the speaker's past observation or experience) in the *-te* part. The "transference" conjunctive ender *-taka* 'while' indicates that the event of an SC is interrupted and immediately followed by a different event denoted by an FC, as in (20b).

- (20) (a) [pi ka o-**teni**]<sub>SC</sub> nwun i w-ayo  
 rain s come-**and.then** snow s come-POL  
 (I saw) it rained and then it (now) snows.  
 (b) [pi ka o-**taka**]<sub>SC</sub> nwun i w-ayo  
 rain s come-**then** snow s come-POL  
 It rained and then (now) it snows.

The second distinct way of expressing temporal succession is by means of conjunctive adverbials such as *kuliko* 'and (then)', *kulikose* 'and then', *kuliko nase* 'and then', *kulayse* 'and then', *kuleteni* 'and then', and *kuletaka* 'and then'. These adverbials precede an FC. In (21), only *kulayse* presupposes that Kiho went to the movies with Mia.

- (21) [Kiho nun Mia lul manna-ss-eyo.]<sub>SC</sub> kulayse; kulikose  
 Kiho TOP Mia o meet-PAST-POL **and.so; and.then**  
 kukcang ey ka-ss-eyo  
 theatre to go-PAST-POL  
 Kiho met Mia. And then he went to the movies (with her).

4.1.2. *Relative time (Ir)* There are a number of clause enders that mark relative time, as given in Table 3, in which a rough morphemic analysis is made for each ender. All these enders are attached to an SC, which precedes its FC.



TABLE 3. Temporal linking markers (clause enders on SC)

Time of Supporting clause with respect to time of Focal clause

| PAST  | FUTURE  | SAME TIME  |                |
|---|---|--|----------------|
| <p>-(u)n twi (ey) (R back at)<br/>'after'</p> <p>-(u)n hwu (ey) (R after at)<br/>'after'</p> <p>-(u)n taum (ey) (R next at)<br/>'after'</p> | <p>-ki cen (ey) (NOMZ front at)<br/>'before'</p> <p>-ki ey aph-se-(se)<br/>(NOMZ at front-stand-and)<br/>'before'</p>                                 | <p>-(u)l ttay (ey) (PRS time at)<br/>'when'</p> <p>-(u)l mulyep (ey)<br/>(PRS approx.time at)<br/>'around when'</p> <p>-(u)l cuum (ey)<br/>(PRS approx.time at)<br/>'approx. when'</p> <p>-(u)l cek ey (PRS time at)<br/>'when'</p> <p>-ese/ase 'when'</p> <p>-ca (ma-ca)<br/>(upon stop-upon)<br/>'as soon as'</p> <p>-(u)n/nun cuksi<br/>(R immediate.time)<br/>'as soon as'</p> | POINT IN TIME  |
| <p>-(u)n ilay (R since)<br/>'since'</p> <p>-(u)n ci (R since)<br/>'since' [a duration word<br/>required in main clause]</p>                 | <p>-ki kkaci (NOMZ until)<br/>'until'</p> <p>-(u)l ttay kkaci (PRS time till)<br/>'until; by (the time when)'</p> <p>-tolok 'until the time when'</p> | <p>-(u)n/nun/(u)l tongan (ey)<br/>(R/PRS duration in) 'while;<br/>during (the time when)'</p> <p>-(u)mye(nse)<br/>'while ~ -ing'</p>   | LENGTH OF TIME |

Notice that a majority of the temporal linking markers have developed from relativized or nominalized postpositional constructions (cf. (13c, d)). In (22), for example, the time/place noun *cen* ‘front; before’ takes only the non-factive nominalizer *-ki*, the time noun *ttay* ‘when’ takes only the prospective relativizer *-(u)l*, and the time/place noun *twi* ‘back; after’ takes only the past/perfective relativizer *-(u)n*.

- (22) (a) [sihem kyelkwa ka palphyona-**ki** cen (ey)]<sub>SC</sub> Kiho  
 exam results s announced-NOMZ front at Kiho  
 nun kekceghay-ss-eyo  
 TOP worry-PAST-POL  
 Kiho was worried *before* the exam results were announced.
- (b) [sihem kyelkwa ka palphyona-l ttay (ey)]<sub>SC</sub> Kiho  
 exam results s announced-PRS time at Kiho  
 nun kippehay-ss-eyo  
 TOP delighted-PAST-POL  
 Kiho was delighted *when* the exam results were announced.
- (c) [sihem kyelkwa ka palphyona-n twi (ey)]<sub>SC</sub> Kiho  
 exam results s announced-R back at Kiho  
 nun hayngpokhay-ss-eyo  
 TOP happy-PAST-POL  
 Kiho was happy *after* the exam results were announced.

The same relative time concepts can be expressed by temporal adverbials, as in Table 4. Notice that the adverbials are anaphoric demonstrative compounds, which mark FCs.

4.1.3. *Conditional (Ic)* Conditional enders are attached to SCs. The generic conditional ender *-(u)myen* may refer to both ‘if’ and ‘when’ if not occurring with the modal adverb *manil* ‘by any chance’ in which case only the conditional meaning is possible. The suffix *-ketun* ‘if; in case; provided that’ is used only as conditional and only when the FC denotes the speaker’s intention, as in an imperative, propositive, or intentive sentence.<sup>8</sup>

- (23) (a) [pi ka an o-myen; -ketun]<sub>SC</sub> ka-kela/-ca/-keyss-ta  
 rain s not come-if/when; -if go-IMP/-PRP/-intend-DEC  
 Please go!/Let’s go/I will go on the off chance that it does not rain.

<sup>8</sup> Neither *-(u)myen* nor *-ketun* is interpreted exclusively as ‘when’ or functions as a marker of an interrogative complement clause such as *I don’t know if he is coming*. Thus, they are basically conditional markers.

TABLE 4. Temporal linking markers (adverbials on FC)

| Time of Supporting clause with respect to time of Focal clause |  |  |                |
|--|--|--|----------------|
| PAST   | FUTURE   | SAME TIME  |                |
| <i>ku twi (ey)</i><br>(that back at)<br>'after that'           | <i>ku-cen (ey)</i> (that-before at)<br>'before that'                   | <i>ku-ttay (ey)</i> (that-time at)<br>'then; at that time'           | POINT IN TIME  |
| <i>ku-hwu (ey)</i><br>(that-after at)<br>'after that'          | <i>ku ey aph-s-e(se)</i><br>(that at front-stand-and)<br>'before that' | <i>ku mulyep (ey)</i> (that about.time at)<br>'around then'          |                |
|  |  | <i>ku cuum (ey)</i> (that about.time at)<br>'about then'             |                |
|  |  | <i>kule-l cek ey</i> (do/be.so-PRS time at)<br>'at that time'        |                |
|  |  | <i>kulayse</i> 'then'  |                |
|  |  | <i>kule-ca (ma-ca)</i><br>(do/be.so-upon stop-upon)<br>'thereupon'   |                |
|  |  | <i>ku cuksi (ey)</i> (that moment at)<br>'at that moment'            |                |
|  |  |  |                |
|  |  |  |                |
|  |  |  |                |
| <i>ku ilay</i> (that since)<br>'since then'                    | <i>kule-ki kkaci</i> (do/be.so-NOMZ till)<br>'until then'              | <i>ku-tongan (ey)</i> (that-duration in)<br>'during that time'       | LENGTH OF TIME |
| <i>kule-n ci</i><br>(do/be.so-R since)<br>'since then'         | <i>ku-ttay kkaci</i> (that-time till)<br>'until then; by that time'    | <i>kule-myense</i> (do/be.so-while ~ -ing)<br>'while doing/being so' |                |
|  | <i>kule-tolok</i> 'until then'   |  |                |

- (b) [pi ka o-myen; \*-ketun]<sub>SC</sub> Mia nun aph-ayo  
 rain s come-if/when; -if Mia TOP sick-POL  
 If/when it rains, Mia gets sick.

Condition is expressed by some other suffixes as well, which do not allow ‘when’ interpretation. The enders *-tamyen* (after a verb or adjective)/*-lamyen* (after a copula) ‘if; provided that’ denote a stronger condition than *-(u)myen*, in that they have developed from *-ta/la ko ha-myen* (DEC QUOT say-if) ‘if (someone) says that’ with the omission of *ko ha* ‘say that’. Exclusive condition is expressed by the suffix *-eya/aya(-man)* ‘if only’. The full form *-eya/aya-man* conveys stronger exclusiveness than *-eya/aya* does.

- (24) [Kiho ka ka-ya(-man)]<sub>SC</sub> Mia to ka-yo  
 Kiho s go-if.only-only Mia also go-POL  
 Only if Kiho goes, Mia goes.

There are means to show the distinction between possible and counterfactual conditionals. Compare the possible conditional in (25a), where *-(u)myen* or *-ketun* may occur, with the counterfactual conditionals in (25b) and (25c), where only *-(u)myen* can occur.

- (25) (a) [nayil Kiho ka o-myen; \*-ketun]<sub>SC</sub> kathi  
 tomorrow Kiho s come-if/when; -if together  
 nol-ayo  
 play-POL  
 If Kiho comes tomorrow, (let’s) play together.
- (b) [nayil Kiho ka o-myen]<sub>SC</sub> kathi nol-ass-ul  
 tomorrow Kiho s come-if together play-PAST-PRS  
 kes i-ntey yo  
 fact be-but POL  
 If Kiho *were to* come tomorrow, (we) *would* play together.
- (c) [nayil Kiho ka w-ass-umyen]<sub>SC</sub> kathi no-l  
 tomorrow Kiho s come-PAST-if together play-PRS  
 kes i-ntey yo  
 fact be-but POL  
 If Kiho *were to* come tomorrow, (we) *would* play together.
- (d) [Kiho ka w-ass-umyen]<sub>SC</sub> kathi nol-ass-ul kes  
 Kiho s come-PAST-if together play-PAST-PRS fact  
 i-ntey yo  
 be-but POL  
 If Kiho *had come*, (we) *would have* played together.

Counterfactuality is indicated in both the SC and FC. The SC must have the past or non-past form of the conditional ender *-(u)myen* and the FC must have the past or non-past form of the counterfactual ender *-(u)l kes/the i-ntey* (PRS fact be-but) ‘would; could’. For present or future counterfactual, as in (25b, c), either the SC or the FC must be made in the past tense. For past counterfactual, both the SC and FC must be made in the past tense, as in (25d). Counterfactuality may be reinforced by replacing *-ass/ess-umyen* with *-ass/ess-tamyen* or *-ass/ess-telamyen*. The ender *-ass/ess-telamyen*, which has developed from *-ass/ess-te-la ko ha-myen* (PAST-RT-DEC QUOT say-if) ‘if (someone) says that it had done/been’, is used only as a counterfactual marker for the present, future, or past.

There is a Possible conditional construction which predicts a bad consequence. For this conditional, the suffix *-takanun* (< *taka-nun* (while-TOP)) ‘if one keeps doing’ is used.

- (26) [Kihō ka celehkey nol-takanun]<sub>SC</sub> sihem ey  
 Kihō s like.that play-if.keep~ing exam at  
 silphayha-keyss-eyo  
 fail-may-POL  
 Kihō may fail in the exam, if he keeps playing like that.

The meaning of ‘unless’ is expressed by the ender *-ci an-h-(n)un han* (NOMZ not-do/be-R limit) ‘unless’, as in *Kihō ka o-ci an-h-nun han* ‘unless Kihō comes’ and *nalssi ka coh-ci an-h-un han* ‘unless the weather is good’. Its positive counterpart is *-(n)un han* (R limit) ‘as long as’.

Concessive enders include *-eto/ato*, *-telato*, *-(u)lcilato*, *-ulmangceng*, *-(u)ntul*, and *-(u)lcienceng*, all meaning ‘even if’, and the recent innovation *-e/a po-assca* (INFIN try-even.if) ‘even if one tries’. Bak (2007) discusses semantic and pragmatic connection between concessive and conditional enders in Korean.

Conditionals and concessives can also be expressed extensively by conjunctive adverbials in FCs. These adverbials, many of which are in free variation in usage, are listed in Table 2 (Ic).

#### 4.2. *Consequence (II)*

A number of structural patterns mark Cause, Result, and Purpose, as observed in Table 2 (IIc, IIr, and IIp). Table 5 is a morphologically elaborated version. Notice that while Cause and Result enders are attached to SCs, Purpose enders are attached to FCs. On the other hand, Cause and Result adverbials precede FCs, whereas Purpose adverbials precede SCs. One exception is the adverbial *waynya(ha)myen* ‘because’, which has recently developed from *way i-nya ko*

*ha-myen* (why is-Q QUOT ask-if) ‘if (someone) asks why (it) is (so)’. This Cause adverbial precedes an SC.

Two semantically close Cause suffixes *-ese/ase* (e.g., (5a), (17b), and (44a, b)) and *-(u)nikka* are most frequently used and linguistically most controversial, as their meanings and usages are hard to define (e.g., Sohn 1992, Nahm 1994, Suh 1996, Cho 2005). In general, *-ese/ase* tends to denote (mild) cause, temporal succession, same time, result, and ways/means, while *-(u)nikka* tends to denote (strong) cause and rarely temporal ‘when; while’ (along with the speaker’s realization of the FC event). When *-ese/ase* in (17b) is replaced with *-nikka*, as in (27), the causal meaning becomes much stronger.

- (27) [Kiho ka cha lul pha-**nikka**]<sub>SC</sub> Mia ka wul-ess-eyo  
 Kiho A car O sell-**because** Mia S cry-PAST-POL  
 Because Kiho sold the car, Mia cried.

As in other types of clause liking, both suffixal and adverbial markers are used in Cause constructions. This is illustrated in (28).

- (28) (a) [Kiho ka o-ki ttaymun ey]<sub>SC</sub> Mia to w-ayo  
 Kiho S come-NOMZ cause for Mia also come-POL  
 Because Kiho comes, Mia comes too.
- (b) [Kiho ka w-ayo.]<sub>SC</sub> ku-ttaymun-ey Mia to w-ayo  
 Kiho S come-POL that-cause-for Mia also come-POL  
 Kiho comes. Because of that Mia comes too.
- (c) [Kiho ka o-nunteny]<sub>SC</sub> ku-ttaymun-ey Mia to w-ayo  
 Kiho S come-and that-cause-for Mia also come-POL  
 Kiho comes and because of that Mia comes too.
- (d) Mia ka w-ayo. [waynyamyen Kiho ka o-ki  
 Mia S come-POL because Kiho S come-NOMZ  
 ttaymun i-eyo]<sub>SC</sub>  
 cause be-POL  
 Mia comes. Because Kiho comes.

Notice in (28d) that when the adverbial *waynya(ha)myen* is used, its clause must contain a cause-indicating expression such as the phrase *-ki ttaymun* + copula or the clause ender *-nikka* ‘as; because’, as in *Kiho ka o-ki ttaymun i-eyo* or *Kiho ka o-nikka yo*, both meaning ‘because Kiho comes’.

Some complex Cause enders given in Table 2 may be analyzed morphologically as follows: *-(u)m-ulo* (NOMZ-with) ‘as; because’; *-ki-ey* (NOMZ-at) ‘as; because’; *-(u)n/nun thas ulo* (R influence with) ‘owing to’; *-(u)n/nun ko lo*

TABLE 5. Consequence linking markers (clause enders and adverbials)

| Consequence | Markers with Supporting clause   |                      | Markers with Focal clause |  |
|-------------|--|----------------------|---------------------------|--|
|             | Enders   | Adverbials           | Enders                    | Adverbials   |
| Cause       | <p>-ese/ase ‘as, since’</p> <p>-nikka ‘because, since’</p> <p>-ni ‘as, since’</p> <p>-nulako ‘while doing’</p> <p>-ki ttaymun ey (NOMZ reason for) ‘because’</p> <p>-(u)m-ulo (NOMZ-with) ‘as, because’</p> <p>-ki-ey (NOMZ-at) ‘as, because’</p> <p>-killay ‘as, because’</p> <p>-(n)un thas ulo (R fault with) ‘owing to’</p> <p>-(n)un ko-lo (R cause- with) ‘as, because’</p> <p>-(n)un kkatalk ey (R reason for) ‘for the reason that’</p> <p>-(n)un mankhum (R as.much. as) ‘now that’</p> | waynyamyen ‘because’ |                           | <p>kulayse ‘so, for that’</p> <p>kulenikka ‘therefore’</p> <p>kuleni ‘so’</p> <p>kule-nulako</p> <p>‘while doing so’</p> <p>ku ttamun ey</p> <p>‘for that reason’</p> <p>kulemulo</p> <p>‘so, hence, therefore’</p> <p>kule-kiey ‘that’s why’</p> <p>kule-killay ‘so’</p> <p>ku(le-n) thas ulo</p> <p>‘owing to that’</p> <p>kule-n ko-lo</p> <p>‘so, hence, therefore’</p> <p>ku(le-n) kkatalk ulo ‘for that reason’</p> <p>kulen mankhum ‘because of that’</p> |
| Result      | <p>-ese/ase ‘as a result of’</p> <p>-(u)n kyelkwa (lo) (R result as) ‘as a result of’</p>  |                      |                           | <p>kulayse ‘thus’</p> <p>ku kyelkwa (lo) (that result as) ‘as a consequence’</p>   |

|         |   |  |  |
|---------|---|--|--|
|         | - <i>(u)m ey ttal-a(se)</i> (NOMZ at follow-and) ‘as a result of, according to’ |  | <i>ttalase</i> ‘accordingly’             |
|         | - <i>(n)un palam ey</i> (R wind at) ‘as a result of’                            |  | <i>ku palam ey</i> ‘as a result of that’ |
| Purpose | —   | - <i>(u)le</i> ‘to’ (with a main verb of coming/going)           |  |
|         | <i>kule-lyeko</i> ‘to do so’  | - <i>(u)lyeko</i> ‘in order to’                                  |  |
|         | <i>kule-koca</i> ‘wishing to do so’   | - <i>koca</i> ‘wishing to’                                       |  |
|         | <i>kule-key(-kkum)</i> ‘to be so’   | - <i>key(-kkum)</i> ‘so that’                                    |  |
|         | <i>kule-tolok</i> ‘to be so’  | - <i>tolok</i> ‘so that’   |  |
|         | <i>kule-lako</i> ‘to be so’   | - <i>(u)lako</i> ‘so that’                                       |  |
|         | <i>kule-ki wihay-(se)</i> ‘in order to do so’                                   | - <i>ki wihay-(se)</i> (NOMZ serve-to) ‘in order to’             |  |
|         | <i>ku mokcek ulo</i> ‘for that purpose’   | - <i>(u)l mokcek ulo</i> (PRS purpose with) ‘for the purpose of’ |  |
|         | <i>kule-l seym ulo</i> ‘thinking to do so’                                      | - <i>(u)l seym ulo</i> (PRS account with) ‘thinking that’        |  |

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(R cause with) ‘as; because’; *-(u)n/nun kkataalk ey* (R reason for) ‘for the reason that’; and *-(u)n/nun mankhum* (R as.much.as) ‘now that’.

Result is expressed either by enders such as *-ese/ase*, *-(u)n kyelkwa lo* (R result with), *-(u)m ey ttal-ase* (NOMZ to follow-and), and *-(u)n/nun palam ey* (R wind at), all meaning ‘as a result of’ on SCs, or by equivalent adverbials on FCs, or by both. The ender *-(u)n/nun palam ey* is a recent metaphorical innovation and is used productively in colloquial speech.

- (29) [sensayngnim i aph-usi-ese;                      aph-usi-n palam ey]<sub>SC</sub>  
       teacher                      s sick-SH-as.result.of; sick-SH-R wind at  
       swuep i eps-eyo  
       class s lack-POL

As a result of the teacher’s being sick, there is no class.

Purpose is expressed by several clause enders on FCs and corresponding adverbials on SCs. These markers are different from each other in either meanings or in syntactic functions, or in both. For instance, the enders *-(u)le* and *-(u)lyeko* ‘(in order) to’ have similar meanings, but the former occurs only when it is followed by a main clause with a locomotive verb (e.g., ‘come’, ‘go’, ‘leave’), whereas the latter does not have such a restriction.

- (30) (a) Kiho nun Mia lul manna-le; -lyeko [kyohoy ey  
       Kiho TOP Mia o meet-to; -in.order.to church to  
       ka-ss-eyo]<sub>SC</sub>  
       go-PAST-POL  
       Kiho went to the church (in order) to see Mia.  
       (b) Kiho nun Mia lul manna-\*le; -lyeko [ilcik ilena-ss-eyo]<sub>SC</sub>  
       Kiko TOP Mia o meet-to; -in.order.to early get.up-PAST-POL  
       Kiho woke up early in order to meet Mia.

Some complex Purpose enders are *key(-kkum)* ‘so that’ where *-kkum* is simply an emphasizer; *-ki wihay-se* (NOMZ serve-to) ‘in order to’; *-(u)l mokcek ulo* (PRS purpose with) ‘for the purpose of’; and *-(u)l seym ulo* (PRS account with) ‘with a view to; intending to’.

#### 4.3. Possible Consequence (III)

Possible consequence is expressed by negating a Purpose construction, as in (31).

- (31) (a) [kay ka an naka-tolok]<sub>SC</sub> muk-e                      twu-sey-yo  
       dog s not go.out-so.that bind-INFIN keep-SH-POL  
       Keep the dog on a leash, lest it should go out.

- (b) [kay ka naka-nikka]<sub>SC</sub> kule-ci anhtolok muk-k-e  
 dog s go.out-because do.so-NOM lest bind-INFIN  
 twu-sey-yo  
 keep-SH-POL

The dog may go out, so keep it on a leash, lest it should do so.

Clause enders like *-(u)l kyengwu (ey)* (PRS occasion at) ‘in the case that’, *-(u)l-kka-po-a(se)* (PRS-whether-think-and) ‘being afraid that; for fear that’, *-(u)l-kka siph-e(se)* (PRS-whether wonder-and) ‘anticipating that; wondering that; in case’, and *-(u)l-kka ha-ko* (PRS-whether expect/do-and) ‘expecting to do’ are also used for Possible consequence in SCs. Their adverbial counterparts (Table 2: III) occur on FCs.

- (32) [pi ka o-lkkapoa(se)]<sub>SC</sub> cip ey iss-ess-eyo  
 rain s come-for.fear.that home at stay-PAST-POL  
 (I) stayed home for fear that it might rain.

#### 4.4. Addition (IV)

The typical ender for Unordered addition (IVu) is *-ko* ‘and’. Its formal counterpart is *-(u)mye*. The linked clauses are of equal semantic status, although grammatically the first clause is always subordinate to the second clause. The adverbial equivalents to these enders are *kuliko* ‘and’ and *ttohan* ‘also; and’.

- (33) [Kiho nun nolayha-ko; -mye] Mia nun chwumchwu-eyo  
 Kiho TOP sing-and; -and Mia TOP dance-POL  
 Kiho sings and Mia dances.

Clause enders for Same-event addition (IVs), all marking SCs, include *-ko* ‘and’, *-nulako* ‘while doing’, *-(u)mye(nse)* ‘while doing/being’, *-keniwa* ‘as well as’, *-(u)l ppun an-i-la* (PRS being.only not-be-and) ‘not only ~ but also’, *-(u)l ppun-tele* (PRS being.only-together.with) ‘not only ~ but also’, and *-(u)l swulok* (PRS the.more) ‘the more ~ the more’.

- (34) (a) [pang to cop-ko]<sub>SC</sub> cip i pissa-yo.  
 room also narrow-and house s expensive-POL  
 The house is expensive, with narrow rooms.  
 (b) Mia nun [ton pe-nulako]<sub>SC</sub> pappa-ss-eyo  
 Mia TOP money earn-while busy-PAST-POL  
 Mia was busy, earning money.

- (c) [Kiho nun wus-**umye(nse)**]<sub>SC</sub> nolayhay-yo  
 Kiho TOP smile-**ing** sing-POL  
 Kiho is singing, smiling.

The most appropriate and productive ender for Elaboration (IVe) is the background information provider *-(n)untey* ‘given that; and; but’. Formal variants are *-(u)n/nun cuk* (R when/then) and *-(u)n/nun pa* (R fact/place).

- (35) [Mia ka san ey ollaka-ss-**nuntey**]<sub>SC</sub> kkoktayki kkaci  
 Mia s mountain to climb-PAST-**and** top till  
 ollaka-ss-eyo  
 climb-PAST-POL  
 Mia climbed the mountain, she climbed right to the top.

Conjunctive enders for Contrast (IVc) include: the particle *man(un)* ‘but’, which follows a complete sentence, and the suffixal enders such as *-ciman* ‘but; although’ (colloquial), *-(u)na* ‘but; although’ (somewhat formal), *-eto/ato* ‘but; although; even though’, *-kenman* ‘though’, *-toy* ‘but’ (formal, old style), and *-(n)untey-to* (even though) ‘despite the fact that; although; but’. These constructions were illustrated in (9), (10), and (11).

All the above Addition-type clause enders have corresponding adverbials, as listed in Table 2 (IV). Notice that all these adverbials occur on FCs, except those for Unordered addition.

#### 4.5. Alternatives (V)

Alternative disjunction (Vd) is expressed by the ender *-kena* ‘or’ or *-tunci* ‘or’ in non-main clauses. Or, adverbials like *ttonun* ‘or’ (formal), *hokum* ‘or (else)’, or *animyen* ‘if not’ may be used in main clauses. Or, both an ender and an adverbial can occur together as in (36). There is no SC/FC distinction in alternative disjunction.

- (36) Kiho ka chwumchwu-**kena**; -**tunci** (ttonun; animyen) Mia ka  
 Kiho s dance-**or**; -**or** **or**; **if.not** Mia s  
 nolayhay-yo  
 sing-POL  
 Kiho will dance or Mia will sing.

Alternative rejection (Vr) is expressed by the ender *-(u)n/nun taysin (ey)* (R replacement for) ‘instead of’, as in (37a), or the phrasal negative ender *an v/ADJ/COP-ko* ‘not v/ADJ/COP (but)’, as in (37b), both in SCs. The same idea can be expressed by the adverbial *ku taysin (ey)* ‘instead (of that)’ or *kule(h)-ci anh-ko* ‘not doing/being that’ in FCs. Both an ender and an adverbial (usually *ku taysin (ey)*) may occur together in a sentence for emphasis, as in (37c).

- (37) (a) [Mia ka nolayha-nun taysin (ey)]<sub>SC</sub> Kiho ka  
 Mia s sing-R instead at Kiho s  
 chwumchwu-eyo  
 dance-POL  
 Kiho will dance instead of Mia singing.
- (b) [Mia ka nolayha-ci an-h-ko]<sub>SC</sub> Kiho ka chwumchwu-eyo  
 Mia s sing-NOMZ not-do-and Kiho s dance-POL  
 Mia will not sing, but Kiho will dance.
- (c) [Mia ka nolayha-ci an-h-ko]<sub>SC</sub> ku taysin Kiho ka  
 Mia s sing-NOMZ not-do-and that instead Kiho s  
 chwumchwu-eyo  
 dance-POL  
 Mia will not sing, but instead, Kiho will dance.

Alternative suggestion (Vs) is expressed in SCs by the ender *-nuni (pota)* (< *-nun i pota* (R thing/fact than)) or *-nun kes pota* (R thing/fact than), both meaning ‘rather than’. The adverbial counterparts, which occur in FCs, are *kule-nuni (pota)* and *kule-nun kes pota*, both meaning ‘rather than doing so’. The modal adverb *chalali* ‘rather’ may be added to the FC for emphasis.

- (38) [Kiho ka nolayha-nuni pota]<sub>SC</sub> *chalali* Mia ka nolayha-nun  
 Kiho s sing-ing than rather Mia s sing-R  
 phyen i na-ayo  
 side s better-POL  
 Rather than Kiho sings, Mia’s singing would be better.

Dixon’s distinction in Chapter 1 between open disjunction (X or Y, but there is a small chance that neither may hold) and closed disjunction (X or Y, with no further alternative possible) is made by syntactic mechanism in Korean, as in (39).

- (39) (a) Kiho ka chwumchwu-kena Mia ka nolayhay-yo  
 Kiho s dance-or Mia s sing-POL  
 Kiho is dancing or Mia is singing.
- (b) Kiho ka chwumchwu-kena Mia ka nolayha-kena hay-yo  
 Kiho s dance-or Mia s sing-or do-POL  
 Kiho is dancing or Mia is singing (or something else).

Sentence (39a) tends to be interpreted as exclusive closed disjunction (X or Y but not both), whereas (39b), in which *-kena* is repeated, allows open disjunction or inclusive closed disjunction interpretation (X or Y or both).

As indicated earlier, apposition is used only in questions to indicate closed disjunction. The disjunctive adverbial *animyen* ‘if not’ can be inserted between the clauses.

- (40) ka-si-keyss-eyo↑ (*animyen*) swi-si-keyss-eyo?↓  
 go-SH-will-POL if.not rest-SH-will-POL  
 Will (you) go or take a rest?

#### 4.6. Manner (VI)

Real manner (VIr) is expressed by enders like *-tasiphi* ‘as; in the same way that’, *-(u)n/nun taylo* (R as/like) ‘as; like; according to’, *-(u)n/nun kes chelem/kathi* (R thing/fact like) ‘as; like; so ~ as’, and *-(u)n/nun)-tusi* (R-as.if) ‘like; as if’.

- (41) (a) [apeci ka sikhi-si-n **taylo**]<sub>SC</sub> yelsimhi ilhay-yo  
 father s instruct-SH-R as hard work-POL  
 (I) work hard as my father told me to.  
 (b) [Mia ka nolayha-**tusi**]<sub>SC</sub> Kiho ka nolayhay-yo  
 Mia s sing-like Kiho s sing-POL  
 Kiho sings in the same way as Mia does.

Hypothetical manner (VIh) is expressed by the structure consisting of the modal adverb *machi* ‘just’ and the ender *-tasiphi* ‘as; like’, *-((u)n/nun/- (u)l)-tusi* ‘as if; like’ or *-(u)n/nun/(u)l kes chelem/kathi* ‘as if; like’ in SCs. The adverb *machi* can be omitted if the content is already hypothetical.

- (42) [(*machi*) hanul i muneci-n **tusi; -n kes chelem**]<sub>SC</sub> Kiho  
 just sky s fall-R as.if; -R fact like Kiho  
 ka silmanghay-ss-eyo  
 s disappointed-PAST-POL  
 Kiho was so disappointed, as if the sky had fallen in.

Ways/means (VIw) are expressed by *-ese/ase* ‘by ~ -ing’ and *-e/a kaciko* (< *-e/a kaci-ko* (INFIN hold-and)) ‘by (means of) ~ -ing’, as illustrated in (43).

- (43) (a) [tol lo ttayly-**ese**]<sub>SC</sub> ku ciney ul cwuki-ess-eyo  
 stone with strike-by the centipede o kill-PAST-POL  
 (He) knocked the centipede with a stone to death.  
 (b) [cha lul phal-a **kaciko**]<sub>SC</sub> chinkwu lul tow-ass-eyo  
 car o sell-INFIN hold.and friend o help-PAST-POL  
 (I) helped a friend by selling my car.

All the above Manner enders have corresponding adverbials, which occur in FCs. These are listed in Table 2 (VIr, VIh, VIw).

#### 4.7. Markers with multiple functions

Many predicative enders also function as (verbal) complementizers, e.g., *-ko* ‘and’, *-(u)myen* ‘if; wishing’, *-key* ‘so that’, *-tolok* ‘so that’, *-eya/aya* ‘only if’, *-(u)lyeko* ‘intending to’, *-koca* ‘wishing to do’, *-tusi* ‘as if’, *-kena* ‘or’, and *-tunci* ‘or’. Some predicative enders have multiple clause linking functions. The ender *-ese/ase* indicates not only Temporal succession (17a), Cause (17b), and Manner (ways/means) (43), but also Result and Relative time (same time), as in (44).

- (44) (a) [palam i pul-ese]<sub>SC</sub> sakwa ka ttelecye-ess-eyo  
 wind s blow-so/and apple s fall-PAST-POL  
 (i) Apples fell as wind blew. (Cause)  
 (ii) Wind blew, and apples fell as a result. (Result)
- (b) [nal i palk-ase]<sub>SC</sub> ilena-ss-eyo  
 day s bright-as get.up-PAST-POL  
 (i) Because the day broke, (I) got up. (Cause)  
 (ii) When the day broke, (I) got up. (Relative time–same time)

The ender *-ko* indicates Temporal succession and Addition, *-(u)myen* Relative time (‘when’) and Conditional, *-eto/ato* Concession and Contrast, *-nulako* Cause and Same-event addition, *-(u)ni* and *-(u)nikka* Cause and rarely ‘when; while’, and *-(u)mye/- (u)myense* Same time and Addition. Purposive enders such as *-key(-kkum)*, *-tolok*, and *-(u)lyeko* function as Possible consequence with a negative adverb and *-tolok* marks length of time (future) as well.

Derived enders tend to have their unique conjunctive functions. For instance, *-(u)l ttay (ey)* (PRS time at) ‘when’, which has developed from a time adjunct, only functions as Relative time and nothing else. The ender *-(n)untey* ‘given that; and; but’, however, is fully grammaticalized from *-(n)untey ey* (R place at) and used as a softened version of Contrast, in addition to Elaboration. None of the conjunctive enders can connect NPs. Only the conjunctive adverbials *kuliko* ‘and’, *ttonun* ‘or’, *hokum* ‘or’, and *animyen* ‘if not’ can.

### 5. Clause linking in Korean: summary

As examined thus far, Korean has extensive means of clause linking for all of the major linkage types and subtypes set out in Chapter 1. Thus, first, the prototypical device is to suffix conjunctive enders to the predicate of the non-main clause. All non-main clauses typically precede their main clauses. Conjunctive expressions by simple apposition are very rare in Korean, the only exception being alternating questions.

Second, as a mirror image of the suffixal device, there is a productive device to use conjunctive adverbials for main clauses. Such adverbials occur in sentence- or clause-initial position. The majority of these adverbials have derived from a combination of the anaphoric *ku* construction and a conjunctive ender.

Third, a clause plus a conjunctive adverbial can stand alone as a complete sentence, while a clause plus a conjunctive ender cannot do so. It is possible to have both a clause ender in the non-main clause and a conjunctive adverbial in the main clause for emphasis or certain rhetorical style.

Fourth, all non-main clauses other than the Purpose, Unordered addition and Disjunction subtypes semantically function as Supporting clauses. All main clauses or sentences with a conjunctive adverbial other than the Purpose, Unordered addition and Disjunction subtypes semantically function as Focal clauses. In the Purpose subtype, non-main clauses with a conjunctive ender function as FCs and main clauses with an adverbial function as SCs. One exception is a construction with the recently innovated adverb *waynya (ha)myen* ‘because’, which, as indicated earlier, has developed from *way i-nya ko ha-myen* (why is-Q QUOT ask-if) ‘if (someone) asks why (it) is (so)’. This Cause adverbial marks an SC and this clause follows an FC unlike in other causal expressions. Furthermore, this SC has a vestige of a Cause ender, as we observed in (28d), as if the clause is an “afterthought” addition.

Fifth, major patterns of conjunctive enders are (a) predicative suffixes, simple or complex, (b) a conjunctive particle, (c) relativized postpositional phrases, (d) nominalized postpositional phrases, (e) conjunctive predicate phrases, and (f) extended conjunctive phrases. Many enders such as predicative suffixes are completely morphologized as unanalyzable units, while many derived enders are either in the early stage of grammaticalization and semantic shifts or still somewhat transparent in structure and meanings. The same is true with conjunctive adverbials.

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# The Semantics of Clause Linking in Goemai<sup>1</sup>

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This chapter discusses the semantics of clause linking in Goemai, a West Chadic language (Afroasiatic, Chadic, West Chadic A, Angas-Goemai, Southern Branch) that is spoken south of the Jos Plateau in Central Nigeria.

The Jos Plateau is a linguistic area where speakers of non-related Chadic and Benue-Congo languages have been in contact for many centuries. In more recent times, this type of contact has changed, and one single language, the Chadic language Hausa, has emerged as the dominant *lingua franca*. As a result, languages like Goemai are in the process of being replaced: Hausa has developed into the main means of everyday communication as well as into the first, and often only, language acquired by children. The influence of Hausa extends to the topic of this volume: a large number of syntactic clause linkers have been borrowed from Hausa, and are regularly used by the younger generation. Older Goemai, by contrast, tend to resort to verb serialization and apposition in the same contexts. Throughout this chapter, both borrowed and native constructions are presented.

This chapter is structured as follows: §1 introduces the typological structure of Goemai, §2 discusses the semantics of clause linking, and §3 concludes this chapter.

## 1. Typological profile

This section gives background information on Goemai (§1.1), and introduces the major clause types (§1.2).

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### 1.1. Background information

Goemai can be characterized as predominantly isolating, despite the fact that it has recently innovated some nominal morphology, retains remnants of Chadic verbal morphology, and makes use of suppletive alternations in verbs. Given its largely isolating nature, Goemai grammar relies heavily on syntactic strategies. As such, grammatical relations are marked through strict constituent order (AVO/SV), and there is (generally) no cross-referencing of arguments on verbs, nor is there case marking on nouns. TAM categories are expressed through free particles, and the most common form of the verb is unmarked for any TAM category. Nouns function as heads of NPs, and are morphologically unmarked. And although Goemai grammar pays attention to both nominal number (singular, plural) and nominal class (based on the canonical posture of referents), these categories are—with very few exceptions—not marked on the noun itself, but rather surface in different syntactic constructions. Verbs function as heads of predicates, and are generally unmarked—only about 10 per cent of the verbal lexicon is morphologically marked for number, indicating number in one of their arguments. Verbs participate in one or more distinct argument structure constructions (one intransitive, three transitive, and one ditransitive constructions), whereby their syntactic possibilities are determined by their lexical aspect and thematic roles. For example, the verb *lúut* ‘be afraid (SG)’ has the distinct plural form *lwát*, and participates in three argument structure constructions. In the intransitive construction, the number marking on the verb indicates the number of its S argument, e.g., singular in (1).<sup>2</sup> In one transitive construction, it indicates the number of its A argument (singular in (2), plural in (3)). And in another transitive construction, only the invariant singular form can be used (independent of the number of its A and O arguments; as in (4)). The two transitive constructions differ semantically in that the first codes a relation, admitting O arguments that are not patients or themes (e.g., a stimulus in (2) and (3)), while the second codes indirect causation.

- (1)    *mán*        *[yì]<sub>S</sub>=lùut*                      *môu!*  
          PROHIB   2sgf.S/A=be.afraid(SG)   NEG  
          Don’t be afraid!
- (2)    *mán*        *[yì]<sub>A</sub>=lùut*                      *[muép]<sub>O</sub>   môu!*  
          PROHIB   2sgf.S/A=be.afraid(SG)   3pl.O        NEG  
          Don’t be afraid of them!

<sup>2</sup> I use an adapted version of the practical orthography developed by Sirlinger (1937). The following symbols may not be self-explanatory: *p', t', k, f', s', sh'* = non-aspirated obstruents; *b', d'* = implosives; *oe* = [ə]; *u* = [u], *o* = [ɔ]. An intonation break is signaled by “/”.

- (3) [mɯɛ̀p]<sub>A</sub> lwát [hén]<sub>O</sub> sòsái / hèn shàl  
 3pl.s/A be.afraid(PL) 1sg.o very 1sg.s/A fight  
 They really are afraid of me, (because) I (can) fight.
- (4) [mɯɛ̀p]<sub>A</sub> lúut [mén]<sub>O</sub>  
 3pl.s/A be.afraid(SG) 1pl.o  
 They cause us to be afraid (i.e., we are afraid of them).

### 1.2. Clause types

In all clause types—including both main and non-main clauses—Goemai follows AVO/SV constituent order. Notice that 3SG subjects and non-animate objects are omitted whenever they are recoverable from the linguistic context. For example, the A and O arguments are introduced in the first transitive clause of (5), but are omitted in the two subsequent clauses.

- (5) [là=ndòe=gùrùm]<sub>A</sub> b'às [là=ndòe=shàt]<sub>O</sub> /  
 DIM(SG)=SPEC=person cut.off DIM(SG)=SPEC=porridge  
 gòe-kyóklók / pòe yì [n-nt'í]<sub>ADV</sub> [nt'í]<sub>A</sub>  
 NOMZ(SG)-small give CONS BEN-son.of.rabbit son.of.rabbit  
 láp yì s'òe  
 receive CONS eat  
 Some poor **person** cut off a bit of **porridge**, a little bit, and (he) gave (it) to the son of the rabbit. And the son of the rabbit took (it) (and) ate (it).

Goemai makes extensive use of serial verb constructions (SVC). More specifically, it has four distinct types, which show formal differences in the way they express TAM, person, and polarity (see Hellwig 2006a for details): the deictic SVC (which has a deictic function), the configurational SVC, the inchoative SVC (which both serve aspectual functions), and the coordinate SVC. This last construction is of relevance to this chapter, even though it is a monoclausal construction and hence does not constitute a clause linking device as such: the coordinate SVC is the main strategy for expressing a temporal relationship between two subevents (see §2.1). Its interpretation invariably depends on the lexical aspect of the first verb: it receives a sequential interpretation if this verb is non-stative (6), and a simultaneous interpretation if it is stative (7).

- (6) áas máng úés hàar  
 dog take(SG) bone gnaw  
 The dog took the bone (and) chewed (it). (Interpretation: 'taking' precedes 'chewing'.)

TABLE 1. Multiclausal constructions in Goemai

| Type  | Restrictions on the expression of ... |                                     |                              |
|---|---------------------------------------|-------------------------------------|------------------------------|
|   | ... TAM                               | ... person                          | ... polarity                 |
| Modifying and Adverbial clauses<br>(oriented either towards a participant or an event):<br>(a) (gòe-) <i>pé ~ fě</i> 'adverbial clause'<br>(b) gòe- 'nominalized adverbial clause'<br>(c) bòe= 'manner/locative adverbial clause'   | —<br>—<br>—                           | —<br>A/s coded as POSS              | negation expressed only once |
| Complement clause (in O function with verbs of attention, thinking, speaking, liking): (gòe-) <i>pé ~ fě</i> 'complementizer'   | —                                     | —                                   | negation expressed only once |
| Purpose and Sequential linking:<br>(a) <i>dé-gòe (n-)</i> 'purposive'<br>(b) gòe 'sequential'   | cannot be expressed in Clause 2       | A/s cannot be expressed in Clause 2 | negation expressed only once |
| Apposed main clauses:   | —                                     | —                                   | —                            |
| Linked main clauses:<br>(a) <i>d'à ~ là</i> 'when/if'<br>(b) <i>nyè- (gòe-) pé ~ fě</i> 'because'<br>(c) high tone + <i>yì</i> 'and so, thus'<br>(d) high tone + <i>dé</i> + <i>yì</i> 'so that, in order to'<br>(e) <i>gòebí</i> + high tone + <i>yì</i> 'as if, like'<br>(f) <i>s'à(yò)</i> 'lest'<br>(g) various Hausa loans | —                                     | —                                   | —                            |

- (7) *mùèp t'wót ràng nyé-ráng*  
 3pl.s/A sit(PL) think NOMZ-think  
 They sat (and) thought a thought. (Interpretation: 'sitting' and 'thinking' occur simultaneously.)

In addition to monoclausal serial verb constructions, Goemai has a number of multiclausal constructions. These constructions are summarized in Table 1, together with an indication as to their expression of TAM, person, and polarity. While some multiclausal constructions show restrictions, other

constructions—in particular, apposed and linked clauses—do not differ formally from main clauses.

All Goemai clauses are characterized by a downdrift contour, and by changes to clause-final tones (high tone becomes falling, low tone becomes extra low) and vowels (short vowels are realized long). The same prosodic properties are attested for each clause of a multiclausal construction: each subsequent clause resets the pitch level and starts a new downdrift contour. In fact, whenever a subsequent clause is introduced by a segmental linker, this linker is then spoken in a much higher pitch range than usual. The only prosodic indication of their semantic unity is that pauses between such clauses tend to be considerably shorter than pauses between semantically independent clauses.

With the exception of complement clauses (see Hellwig 2006b), all multiclausal constructions play a role in clause linking and are exemplified in the next section.

## 2. The semantics of clause linking

This section presents the various clause linking devices and gives an indication of their semantics. It is organized according to the six semantic types discussed in Chapter 1: temporal (§2.1), consequence (§2.2), possible consequence (§2.3), addition (§2.4), alternative (§2.5), and manner (§2.6). Some devices are restricted to one semantic type, while others cross-cut these types. In such cases, they are discussed under one heading, and cross-referenced to the others. Table 2 summarizes the discussion.

### 2.1. *Temporal*

The coordinate serial verb construction is the main strategy for expressing temporal relations (see the discussion of examples (6) and (7) in §1.2). In addition, Goemai makes use of the following multiclausal constructions.

The sequential particle *gòe* occurs in the structure: main clause + sequential particle + V(O)(ADV), where it expresses temporal succession (8). As indicated in Table 1, the second clause cannot express TAM, person, or polarity separately. Despite these restrictions, the construction is not analyzed as a monoclausal construction. It is considered a multiclausal construction because of its prosodic properties and because of the possibility to add adverbs to either clause. This sequential particle is one of the very few clause linking particles in Goemai that is likely to be of Chadic origin (from sequential *\*k-*, discussed in Newman and Schuh 1974, Wolff 1979).

- (8) [t'óng bà]<sub>SC</sub> gòe kàt màshà múk  
 IRR return(SG) SEQ find lady 3sg.POSS  
 (She) would return and find her girlfriend.

In addition, there are two types of adverbial clauses that provide a temporal setting, i.e., they express relative time: nominalized adverbial clauses (marked by the nominalizing prefix *gòe-*) (illustrated in (9) to (10)), and non-nominalized adverbial clauses (marked by the syntactic linker (*gòe-*) *pé* ~ *fé*). Both adverbial clauses occur sentence initially, and their interpretation depends on their aspectual marking. They receive a sequential 'past' interpretation if they are not marked for progressive aspect (9), and they receive a simultaneous interpretation if they are marked for progressive aspect (10). The first interpretation can be stressed by adding the spatial-cum-temporal adverb *nk'óng* 'BACK' (11)—but notice that such examples are very rare in natural discourse.

Synchronically, the two adverbial clauses are used interchangeably. But diachronically, they developed from different sources. It is likely that the first type originated in a nominalized clause functioning as a modifier to a head noun. And the second type possibly derived from the locational noun *pé* '(at) a place', augmented optionally with the spatial preposition *gòe* 'location at a place'.

- (9) [gòe-t'à múk n-hàngòdè'è ònòe=hòe]<sub>SC</sub>  
 NOMZ-fall(SG) 3sg.POSS LOC-water LOC.ANAPH=exactly  
 mòe-nyè múk yír  
 NOMZ(PL)-companion 3sg.POSS turn  
 Him having fallen into this water, his friends turned around. (Interpretation: 'falling' precedes 'turning around'.)
- (10) [gòe-t'wòt muép t'óng k'wál òdòe=àrà=hòk yì]<sub>SC</sub> /  
 NOMZ-sit(PL) 3pl.POSS PROG talk SPEC=conversation=DEF PROG  
 nsh'ík múk=hók / kút òdòe / náku múk (...)  
 grandchild 3sg.POSS=DEF talk CONJ grandparent 3sg.POSS  
 Them sitting having the conversation, the grandchild said to his grandparent (...). (Interpretation: 'having the conversation' and 'saying' occur simultaneously.)
- (11) [nk'óng gòe-yóol góe]<sub>SC</sub> / ní dóe b'ák  
 BACK NOMZ-rise(SG) 2sg.POSS 3sg.S/A come here  
 After you having left, he came here.

Another syntactic linker is *d'à* ~ *là* 'when/if', which introduces supporting temporal and conditional clauses, as in (12) to (15). Their interpretation is independent of TAM marking in the clause, and depends instead on

TABLE 2. Semantics of clause linking

| Semantic Type                          | Example               | Marker with supporting clause   | Marker with focal clause  |
|--|-----------------------|---|---|
| Is Temporal succession                 | 8<br>19               |   | <i>gòe</i> ‘sequential’<br><i>sáí</i> ‘then’ (Hausa)  |
| Ir Relative time                       | 9, 10, 11<br>20<br>21 | <i>gòe-</i> ~ ( <i>gòe-</i> ) <i>pé</i> ~ <i>fě</i> ‘temporal adverbial’<br><i>kàfín</i> ‘before’ (Hausa)<br><i>hár</i> ‘until’ (Hausa) |   |
| Ir Relative time and<br>Ic Conditional | 12–17                 | <i>d’à</i> ~ <i>là</i> ‘when/if’  |   |
| Ic Conditional                         | 18                    | apposition  |   |
| II Consequence                         | 22, 23, 24            | apposition  |   |
| IIc Cause                              | 25<br>26              | <i>nyè-</i> ( <i>gòe-</i> ) <i>pé</i> ~ <i>fě</i> ‘because’<br><i>sábò ñdòe</i> ‘because of’ (Hausa)                                    |   |
| IIR Result                             | 27, 28                | ( <i>nkyèm</i> ~ <i>ntyèm</i> ‘(do) first’ + )  | high tone + <i>yì</i> ‘and so, thus’  |
| IIP Purpose                            | 29, 30<br>31          | ( <i>nkyèm</i> ~ <i>ntyèm</i> ‘(do) first’ + )  | high tone + <i>dé</i> + <i>yì</i> ‘so that, in order to’<br><i>dé-gòe</i> ( <i>n-</i> ) ‘purposive’ |

|                          |                              |   |                           |
|--------------------------|------------------------------|---|---------------------------|
| III Possible Consequence | 32                           | <i>s'â(yò)</i> 'lest'   |                           |
| IV Addition/Contrast     | 33, 34, 35<br>36–7<br><br>38 | apposition<br>( <i>zák</i> 'also/however'; 'modal particles' (Hausa): <i>kúmá</i> 'and also, too, likewise'; <i>má</i> 'too, also, even, still'; ( <i>n</i> ) <i>kwá</i> 'moreover, however')<br><i>bà ~ búk</i> 'also/again' |                           |
| IVc Contrast             | 39, 40                       | <i>kódàshíkè</i> 'even though' (Hausa)  | <i>àmmá</i> 'but' (Hausa) |
| Vd Open disjunction      | 41                           | <i>(kàt, kó, ... 'maybe' + ) ò</i> 'question'   |                           |
| Vd Closed disjunction    | 43                           | <i>kó</i> 'or' (Hausa)  |                           |
| VIr Real Manner          | 44                           | <i>bòe</i> = 'manner/locative adverbial'  |                           |
| VIh Hypothetical Manner  | 45                           | <i>gòebí</i> + high tone + <i>yì</i> 'as if, like'  |                           |



pragmatic information and world knowledge. For example, the event in (12) is known to have taken place, and hence a temporal interpretation results. Out of context, however, both temporal and conditional interpretations are acceptable. Usually, the supporting clause precedes the focal clause, but the other order is attested, too (16). The linker combines with the particle *d'in* (originally indicating close past tense) to mark irrealis and counterfactual conditions (17).

- (12) [muèp d'á k'óelèng / máamb'yál]<sub>SC</sub> / muèp=yí biémbiém  
 3pl.s/A **COND** hear/smell <PLACE.NAME> 3pl.s/A=SAY <PLACE.NAME>  
 When they (= the Hausa) heard (the place name) *Maamb'yal*, they said  
 (= wrote it down as) *Biémbiém*.
- (13) [dók gòe=là góe=p'ét]<sub>SC</sub> t'òng góe=kát jáp  
 past 2sgm.s/A=**COND** 2sgm.s/A=exit(SG) IRR 2sgm.s/A=find children(PL)  
 In the past, when(ever)/if you went out, you would have found children.
- (14) [là góe=p'ét]<sub>SC</sub> t'òng góe=múut  
**COND** 2sgm.s/A=exit(SG) IRR 2sgm.s/A=die(SG)  
 When(ever)/if you go out, you will die.
- (15) [d'á góed'áar]<sub>SC</sub> / d'á á mmùk ndòe=gùrùm  
**COND** tomorrow FUT.CLOSE FOC NOMZ.3sg.POSS SPEC=person  
 When/if (it is) tomorrow, it will be (the turn of) somebody (else).
- (16) muèp t'òng tù ní [kàt ní lá  
 3pl.s/A IRR kill(SG) 3sg.O maybe 3sg.INDEP **COND**  
 à tífi]<sub>SC</sub>  
 FOC <ETHNIC.NAME>  
 They will kill him if he is a Tiv.
- (17) [óerém mén d'in lá là]<sub>SC</sub> /  
 beans 1pl.POSS **PAST.CLOSE COND** produce(SG)  
 hèn=d'in t'óng pòe yòe  
 1sg.s/A=**PAST.CLOSE** IRR give 2sgf.O  
 If our beans will produce (fruit) (but they won't), I will give (it) (to) you.  
 Or: If our beans had produced (fruit) (but they didn't), I would have  
 given (it) (to) you.

It is likely that *d'à ~ là* 'when/if' is etymologically related to *d'à ~ là* indicating future tense (see (15) for an example), progressive aspect and habitual aspect. It can be shown that the conditional clause has given rise to the habitual aspect construction, but their relationship to the future tense and progressive aspect constructions remains unclear. The origin of this linking/

TAM particle is unknown, but it is likely to be a verbal origin: this particle precedes subject pronouns such as *góe* ‘2sgm’ in (14), but follows pronouns such as *muèp* ‘3pl’ in (12)—this distribution is characteristic of the first verb in a serial construction.<sup>3</sup>

Alternatively, apposition is used—albeit infrequently—to express a condition, but never a temporal relation (18) (see §2.4 for more details). Again, the two clauses can occur in either order.

- (18) [ní t’óng dóe vùáng gúrúm]<sub>SC</sub> / ní t’óng  
 3sg.s/A IRR come wash/insult person 3sg.s/A IRR  
 dóe t’óng góe yíl mèn=hòe / kyóop à?  
 come sit(SG) PLACE ground 1pl.POSS=exactly health INTER  
 (If) he were to insult people here, would he (be able to) live here in our  
 land in peace?

Finally, young speakers make frequent use of Hausa loans. The conjunction *sái* ‘then’ introduces a focal clause (which follows the supporting clause) to express temporal succession—it can even occur in a number of successive clauses, with each preceding clause setting the scene for the next (19). The conjunctions *kàfin* ‘before’ (20) and *hár* ‘until’ (21) introduce supporting clauses (which can either precede or follow the focal clauses) to express relative time.

- (19) [yìn jì=b’òot bá]<sub>SC</sub> / sái réep=hók yín  
 SAY sgm.log.sp.s/A=able(SG) NEG then girl(SG)=DEF SAY  
 “láp nd’àsóenòe gòe=hàar” / sái ìmá lúut /  
 receive now 2sgm.s/A=grow then <NAME> fear(SG)  
 sái muèp t’wót  
 then 3pl.s/A sit(PL)  
 (He<sub>1</sub>) said he<sub>1</sub> cannot (do it), then the girl said “take (it) now and eat (it)”, then Ima became afraid, then they sat.
- (20) d’óng gòepé là gòe-màt t’óng màn /  
 good THAT/WHEN child(SG) NOMZ(SG)-woman(SG) IRR know  
 [kàfin yóol muàan d’ik]<sub>SC</sub>  
 before rise(SG) go(SG) marrying  
 It is necessary that a female child would know (it) before (she) rises (and) goes for marriage.
- (21) gwàm muèp d’ì póenóe / gwàm muèp d’ì  
 deceive 3pl.O LOC.ANAPH thus deceive 3pl.O LOC.ANAPH

<sup>3</sup> Goemai *d’à ~ là* ‘when/if’ resembles the Hausa counterfactual conditional marker *dàà ... dàà*. I assume that this resemblance is a coincidence, as the Goemai and Hausa markers occur in different syntactic positions.

póenóe / gwám muép d'ì póenóe / [hár muép  
 thus deceive 3pl.O LOC.ANAPH thus until 3pl.S/A  
 gòegòe zèm]<sub>SC</sub>  
 eventually like

(He) deceived them there like this, (he) deceived them there like this,  
 (he) deceived them there like this, until they finally agreed (to do it).

## 2.2. Consequence

All subtypes of consequence linking can be conveyed by means of apposition: cause (22), result (23), and purpose (24) (see §2.4).

- (22) muép lwát hén sòsái / [hèn shà]<sub>SC</sub>  
 3pl.S/A be.afraid(PL) 1sg.O very 1sg.S/A fight  
 They really are afraid of me, (because) I (can) fight.

- (23) [ni zem bi muk toe]<sub>SC</sub> hen t'ong t'em poe ni  
 3sg.S/A like thing 3sg.POSS EMPH 1sg.S/A IRR tell give 3sg.O  
 She wants (it) her own way (= hear the news), (and thus) I will tell her.  
 (Tiemsan 1999)

- (24) [t'ong ji=shin]<sub>SC</sub> ni t'ong swar swar  
 IRR sgm.log.sp.S/A=do 3sg.S/A IRR laugh laughing  
 (He<sub>1</sub> said) he<sub>1</sub> would do (something), (so that) he<sub>3</sub> would laugh.  
 (Tiemsan 1999)

Although speakers can resort to apposition, it is much more common for them to use the following distinct syntactic markers to express the various subtypes.

Causal linking is expressed by means of the complex form *nyè*- 'because' + (*gòe*-) *pé* ~ *fé* 'adverbial clause particle' (see §2.1 for the adverbial clause). This form introduces a supporting clause (25), and the two clauses can occur in either order. By itself, *nyè*- 'because' introduces nominals (e.g., 'because of jealousy') and adverbials (e.g., 'because of this'). It developed from the preposition *nyè* 'about, concerning (introducing the content of speech act and cognitive verbs)', which in turn developed from the noun *nyè* 'matter, word' (which often occurs as the O argument of speech act and cognitive verbs). Despite the presence of (*gòe*-) *pé* ~ *fé* 'adverbial clause particle', the reason clause shares the formal properties of a linked clause, not of an adverbial clause (as summarized in Table 1).

- (25) móe=póe lòng / [nyè-gòepé lòng wá  
 1pl.S/A:CONS=give chief because-THAT/WHEN chief return.home(SG)

n-k'à                      mén]<sub>SC</sub>  
 LOC-head(SG) 1pl.POSS

And so we gave (it) to the chief because the chief has returned home on account of us.

Alternatively, young Goemai speakers have calqued *sábò ñdòe* + NOMZ 'because of' from Hausa *sábò dà* (26).

- (26) yít              múk              ñnòe              háb'ál /      [sábò ñdòe wál]<sub>SC</sub>  
 eye/face 3sg.POSS LOC.ANAPH swell(PL) because.of crying(SG)  
 This face of hers got swollen because of the crying.

Result and purpose linking both share a common underlying pattern: the focal clause follows the supporting clause, and is marked by a high tone on the first word (triggering tonal changes throughout the clause due to high-tone spreading), plus the consequence clause particle *yì* ((27) is a result example, (29) a purpose example). This particle is probably cognate to the particle *d'ì* in the closely related language Mupun, where it developed from the locative anaphor (Frajzyngier 1993: 460–5). The supporting clause is usually unmarked, but can contain the spatial-cum-temporal adverb *nkyèm* ~ *ntyèm* 'FRONT' ((28) is a result example, (30) a purpose example). The two types of linking only differ in that—in the case of purpose linking—the focal clause additionally contains the form *dé* (in (29) and (30)). This form probably originated in the spatial relator *dé* 'in the vicinity of'. By itself, it is used to relate a purpose coded through a nominal to a main verb (e.g. 'he cries for his toys').

- (27) [bì              ñ-d'è                              kázá]<sub>SC</sub> /              hén=màn  
 thing PRESENTATIVE-exist such.and.such 1sg.S/A: CONS =KNOW  
*yì*      bá  
 CONS NEG

See the thing was such-and-such, and so I didn't know (it).

- (28) [shìn              b'it              ñgám              ntyèm]<sub>SC</sub> /      kát              kyóop  
 do              day              much/many FRONT              find:CONS health  
 múk              yì  
 3sg.POSS CONS

(She) passed many days first, and so (she) found her health.

- (29) [mùèp              k'úur              pè]<sub>SC</sub> /      dé              lwá                              gòe  
 3pl.S/A burn place SO.THAT animal/meat: CONS OBLIG  
 p'ùàt              yì  
 exit(PL) CONS

They burned the place, so that the animals should come out.

- (30) [àmmá d'óng d'òon òèrèm ntyèm]<sub>SC</sub> / dé  
 but good pluck bean **FRONT** **SO.THAT**  
 m̥uép búk yì d'ip s'wá  
 3pl.s/A:CONS return(PL) CONS reap(SG) guineacorn  
 But it is necessary that (he) plucks the beans first, so that they (can then) return (and) reap the guineacorn.

In this context, it is interesting to note that Goemai cannot express a simple future 'before' or 'until' temporal relation (see §2.1): examples such as (27) to (30) above imply a temporal order (in that the event of the supporting clause precedes the event of the focal clause), but they primarily code consequence, not temporal relation.

Purpose is alternatively expressed by means of the following structure: main clause + purposive particle combination *dé-gòe* (*n-*) + V(O)(ADV), as in (31), sharing the same restricted marking possibilities as the sequential clause (see §2.1). It probably originated in the purpose construction illustrated in (29): the purposive linker *dé* plus the obligative particle *gòe* (plus the optional adverbializing prefix *n-*). In present-day Goemai, it is used whenever no separate TAM, person, or polarity marking is intended.

- (31) [hèn=t'òng b'ák]<sub>SC</sub> **dé-gòe** kùt kùt ndòe gwén  
 1sg.s/A=sit(SG) here **PURP** talk talking CONJ 2pl.INDEP  
 I sit here to talk a talk with you.

### 2.3. Possible consequence

In the case of possible consequence, the focal clause precedes the supporting clause, and the supporting clause is introduced by means of *s'à ~ s'àyò* 'lest' (32). This supporting clause always describes an event to be avoided. In present-day Goemai, speakers also increasingly use it to form the negative imperative.

- (32) góe=d'è gòe=n-b'àp yì / [s'àyò gùrùp]<sub>SC</sub>  
 2sgm.s/A=exist 2sgm.s/A=PROG-mix PROG **lest** form.lumps  
 You are mixing it, lest it forms lumps.

### 2.4. Addition

The most common strategy to convey both addition (unordered addition in (33); same-event addition / elaboration in (34)) and contrast (35) is apposition.

- (33) m̥uép s'oe bi, m̥uép s'wa haam, m̥uép shin tal  
 3pl.s/A eat thing 3pl.s/A drink water 3pl.s/A do greeting  
 They eat things, (and) they drink drinks, (and) they perform greetings.  
 (Ohikere and Tiemsan 1999)

- (34) ní à gòe-d'ài / ní zém sh'it bá  
 3sg.INDEP FOC NOMZ(SG)-lazy 3sg.S/A like work NEG  
 He is a lazy one, he doesn't like work.
- (35) [bákwa yòng yì / démshìn]<sub>SC</sub> / s'ém lú=hók  
 <ETHNIC.NAME> call CONS <PLACE.NAME> name settlement=DEF  
 d'è bì múk à ngòotlóng  
 exist thing 3sg.POSS FOC <PLACE.NAME>  
 And so the Hausa call (it) *Demshin*, (but) the name of the village is in  
 its own way *Ngootlong*.

Apposition is semantically general: it conveys a relationship between the state-of-affairs expressed in the two clauses, but leaves the nature of this relationship implicit. Its interpretation depends on contextual information, but, interestingly, there are limits to the kinds of relationships it can express: it never receives a temporal interpretation. Most frequently, it receives an addition or contrast reading (as in the examples above)—presumably because there are no ready alternatives to express these functions otherwise. It can also receive a consequence (in (22), (23), (24)) or conditional reading (in (18)). In these cases, however, there are dedicated syntactic markers available, and speakers prefer to use them instead.

In all cases, speakers can add topicalization particles to the second clause. This includes the Goemai particle *zák* 'also/however' (which compares the properties or activities of one participant to those of another)—the construction can then receive either an addition reading (36) or a contrast reading (37). Alternatively, Goemai has borrowed the so-called 'modal particles' from Hausa, which also serve topicalization functions in that language, including *kúmá* 'and also, too, likewise', *má* 'too, also, even, still', (*n*)*kwá* 'moreover, however' (see Newman 2000: 326–34 for details on Hausa). All topicalization particles set up contexts in which two situations are compared or contrasted—as a result, they can receive contextual addition or contrast interpretations. However, these readings are pragmatic inferences, and are not coded semantically by these particles (see also Stebbins's comparable discussion of adverbs in Mali in Chapter 15, this volume).

- (36) [góe=d'è góeshák ndòe hén]<sub>SC</sub> / hén  
 2sgm.S/A=exist together CONJ 1sg.INDEP 1sg.INDEP  
 zák / hén=d'è góeshák ndòe góe  
 also/however 1sg.S/A=exist together CONJ 2sgm.INDEP  
 You are together with me, (and) as for me, I am together with you.

- (37) [yì=màn            à    ní /            yì    múk    à    yàgùrùm]<sub>SC</sub> /  
 2sgf.s/A=know    FOC    3sg.INDEP    year    3sg.POSS    FOC    twenty  
 yì    ìmá            zák                    s'ár k'á póemóe  
 year    <NAME>    also/however    sixteen  
 You know her, her age is twenty, (but) as for Ima's age, (it is) sixteen.

To express addition, Goemai speakers also (infrequently) use the newly developed particle *bà* (SG) ~ *búk* (PL) 'and, moreover' to introduce the second clause (38). This particle originated from the motion verb *bà* (SG) ~ *búk* (PL) 'return' occurring in the coordinate serial verb construction. In this construction, it first developed the aspectual sense of 'do the same again, do the same as somebody else', and then an addition reading. In its addition reading, it has lost some of its verbal properties.

- (38) s'òe    s'óe    bà            vuáng    d'á  
 eat    food    and(SG)    wash    calabash  
 (He) ate food and also washed the calabashes.

Finally, to express contrast, young Goemai speakers frequently use the borrowed Hausa conjunctions *àmmá* 'but' (39) and (less frequently) *kòdàshíkè* 'even though' (40).

- (39) [ní                    góe            mís]<sub>SC</sub> /    àmmá    ní                    góe  
 3sg.INDEP            COMIT    man(SG)    but            3sg.INDEP            COMIT  
 jáp                    bá  
 children(PL)    NEG  
 She has a husband, but she doesn't have children.
- (40) d'ém            muèp    p'úat    n-láfia /                    [kòdàshíkè  
 remainder    3pl.s/A    exit(PL)    LOC-<PLACE.NAME>    even.though  
 má    láfia=hòk                    gòe    shím]<sub>SC</sub>  
 also    <PLACE.NAME>=DEF    COMIT    yam  
 Some (yam buyers), they come from Lafia, even though this Lafia, too,  
 has yams.

## 2.5. Alternative

There are no strategies attested for expressing rejection and suggestion. For expressing disjunction, Goemai speakers mark all clauses for possibility, i.e., the speakers convey their doubt as to which of the various possibilities is true. This is done by means of an obligatory clause-final question particle *ò*, plus an optional clause-initial particle 'maybe' (41). The obligatory clause-final particle belongs to a set of interrogative particles (and has no other functions in the language). As such, it also occurs in polar questions that expect an affirmative answer

(42)—other particles in this set are: *à* ‘neutral question’, *è* ‘really?’ (expressing surprise), and *mù* ‘right?’ (seeking confirmation). Similar particles are attested in closely related Chadic languages as well as in neighboring Benue-Congo languages. The optional clause-initial particle is either borrowed from Hausa (*kó* ‘or’, *wàtàkìlā* ‘maybe’) or constitutes a recent innovation within Goemai (*kàt* ‘maybe, lit. it finds that’, *là d’óng* ‘maybe, lit. if it is good that’).

- (41) *kàt ní t’ó kyóop ò / kàt ní dām t’ó*  
 maybe 3sg.s/A lie(SG) health INTER maybe 3sg.s/A spoil lie(SG)  
*ò / kàt ní múut ò ?*  
 INTER maybe 3sg.s/A die(SG) INTER  
 Maybe he lies healthy, maybe he lies sick, maybe he has died?

- (42) *kó t’òng dú=kát lwà d’ì*  
 maybe IRR pl.log.sp.s/A=find animal/meat LOC.ANAPH  
*m-pé=hók ò?*  
 LOC-place=DEF INTER  
 (He<sub>1</sub> asked that) maybe they<sub>1</sub> would find meat there in the place?

The construction in (41) expresses an open disjunction. A closed disjunction can only be expressed by means of the borrowed Hausa disjunction *kó* ‘or’. Example (43) illustrates its use as an exclusive closed disjunction.

- (43) *mòe=yòng góor kó mòe=yòng ngùmgóor*  
 1pl.s/A=call fish.type maybe/or 1pl.s/A=call fish.type  
 We call (it) *goor* or we call (it) *ngumgoor* (= either name is possible).

## 2.6. Manner

In all manner clauses, the supporting clause can either precede or follow the focal clause. Real manner is expressed by an adverbial clause, which is introduced by the proclitic *bòe*= ‘manner/locative’ (44). And hypothetical manner is expressed by marking the supporting clause with the comparative particle *gòebí* ‘AS.IF’ plus consequence-clause marking (high tone plus particle *yì*, see §2.2) (45).

- (44) *hèn t’òng t’ém / [bòe=shìn muàlām]<sub>SC</sub>*  
 1sg.s/A IRR tell HOW/WHERE =do tuber.type  
 I will tell (it), how/where to prepare *muàlam*.  
 (45) *ndè kúmá màng k’à sék múk /*  
 one/other also take(SG) head(SG) body 3sg.POSS  
*[gòebí ní à ndòe=bì yì]<sub>SC</sub>*  
 AS.IF 3sg.INDEP:CONS FOC SPEC=thing CONS  
 And another one takes himself as if he were something (special).



### 3. Summary and conclusion

Present-day Goemai employs a range of linking devices that convey most of the semantic types introduced in Chapter 1. Often, the same device is used for expressing several different types. That is, its semantics is more general, and the final interpretation and translation is due to contextual information, on the one hand, and lexical and aspectual information distributed over the clause, on the other. This concerns especially the following devices:

- apposition is used for various non-temporal relationships (condition in §2.1, consequence in §2.2, addition and contrast in §2.4);
- adverbial clauses allow for both sequential ‘past’ and simultaneous interpretations (§2.1)—notice that the same semantic generality is also found in the monoclausal coordinate serial verb construction (§1.2);
- *d’à ~ là* ‘when/if’ expresses both relative time and condition (§2.1);
- a high tone plus the particle *yì* constitute part of the structures that mark result and purpose linking (§2.2) as well as hypothetical manner (§2.6).

The diachronic origins of the present-day linkers are nearly always transparent, suggesting that they constitute more recent innovations. It is possible that different semantic types were originally not conveyed by syntactic linkers at all, but rather by (a) verb serialization (for sequential and simultaneous temporal relationships) and (b) apposition (for the non-temporal relationships of condition, consequence, addition, and contrast). Although these constructions are still attested in the present-day language, semantically more specific linkers have taken over some of the domains. This situation is likely to be changing further, as it can be observed that young speakers increasingly resort to recent Hausa borrowings that replace the native Goemai constructions.

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# The Semantics of Clause Linking in Konso

MAARTEN MOUS AND ONGAYE ODA

## 1. The Konso and their language<sup>1</sup>

Konso is a Cushitic language of about 200,000 speakers spoken in southern Ethiopia not far from the Kenyan border. Its closest relatives are Dirayta (or Gidole) and Oromo. Konso society is divided into farmers (*etanta*) and traders or craftsmen (*xawdáa*); farmers are in higher esteem. The people live in walled towns and their social organization is both by clan and by locality. The clan rulers also have some religious functions. The Konso are famous for their statues (*waakkaa*) for deceased heroes and clan leaders. The people live in a hilly area which is heavily overpopulated. Every inch of land is used for agriculture and river banks are protected against erosion to save farm land. The farmers grow many different crops which are often intermingled in the fields. Fields are family owned, fenced with low stone walls and have their own proper names. Konso culture has been extensively studied; some major publications are Hallpike (1972), Amborn (1989), and Watson (1998).

### 1.1. *Typological profile*

Konso has a series of implosive stops which are here represented by *b, d, j, g*, and a series of plain stops which are written as *p, t, c, k*. Plain stops are allophonically voiced when a vowel follows. The opposition in stops involves primarily a distinction between glottal and non-glottal and only secondarily a voicing contrast. All consonants can be geminated and consonant gemination is a common process. Long implosive stops are devoiced and thus become voiceless implosives; long plain stops are also voiceless. Konso has a series of voiceless

<sup>1</sup> We would like to thank Anto Arkato, Dinote Kusia Shenkere, Samuel Berisha, Korra Garra, and Guracho Gumacho for sharing their insights into their mother tongue with us. The second author is a native speaker of Konso (Fashe dialect). Most example sentences are taken from folktales in Korra Gara (2003) and Daudey and Hellenthal (2004).

fricatives *f*, *s*, palatal *sh*, uvular *x*, and glottal *h*; a series of nasals *m*, *n*, palatal *ny*; liquids *l*, *r*; and glides *w*, *ɣ*. The glottal stop is phonemic and is indicated by an apostrophe '. There are five vowels, *i*, *e*, *a*, *o*, and *u*, which can be long or short. Tone is phonemic but its lexical role is minimal. Only high (surface) tone is indicated by an acute accent in this chapter; other vowels are low toned.

Nouns have gender, which is largely overt on the basis of the final vowel or nominal suffix of the noun. There is a three-way gender agreement in the subject marking on the verb, but there is no gender agreement within nominal phrases. There are about six different plural suffixes and a number of different singulative suffixes. Number suffixes impose gender. Modifiers such as possessive suffixes, demonstratives, adjectives, numbers, relative clauses follow the head noun. Clauses are verb final. Grammatical morphology is predominantly suffixing.

Subject (A/S) is marked on the verb and also occurs as a preverbal subject pronoun, which cliticizes to the verb in one-word sentences. There are three types of verb conjugation in terms of the number of distinctions made in subject agreement. The first type displays full inflection for person; the second is the verbal adjectival pattern that does not distinguish person in the singular; the third type, the present continuous, involves a final element *ni* for all persons and it has additional person marking for first and second person plural only. Verb derivations (Mous 2004, 2007) involve middle *-ad*, passive *-am* (also of intransitive verbs), causative *-ish*, inchoative *-um*, a distributive CVC-reduplication, and a singulative derivation by gemination of the final consonant to indicate that something is done once or a little bit. There are several nominalization processes.

Konso has about thirty adjectives. CVC-reduplication in adjectives indicates distributive meaning. Noun modifiers require a preceding genitive marker *a*; adjectives do not.

Postpositions cannot appear as head in a genitive construction and are thus distinguished from nouns. Postpositions form constituents with nouns, personal pronouns, or demonstrative pronouns such as *sé(dé)*. In the latter case we find lexicalized examples, e.g., *sékkammaa(-yyê)* 'afterwards' from *kam-maá* 'after, behind'; *se mallá ~ sémmallá ~ sédémallá* 'therefore' from *mallá* 'because'. Postpositions may combine with case clitics and (directional) adverbs as in example (1).

- (1) are-pp-*opa*    *xata*            *xooye*  
       here-at-DEST   downward   come:IMP  
       Come down to this place! (Daudey and Hellenthal 2004: 87)

The words that do not fall into any of the above word classes of nouns, verbs, adjectives, or postpositions are difficult to classify. These include time markers such as *kúli*<sup>ni</sup> 'later', *ammá* 'now', *xattá* 'ago, in the past', but also attitude

markers such as *akku* 'expressing disagreement, *katí* expressing a difference of expectation, *asu* expressing surprise and irritation, and expressions like *ásse* 'such, like this/that', *nyéfo* 'also, too', *harmó* ~ *harm'é* 'very, exceedingly'. In this 'rest' category there is also a set of words whose primary function is to link clauses, and, in the case of *ka* and *immo*, also phrases. We term them loosely conjunctions, although it is not clear that they form a word category and one has to bear in mind that there are a number of other grammatical morphemes that take up similar functions. These conjunctions have an anomalous position when combining two clauses. Structurally they belong to the second clause since they need not occur clause initially and tend to occur after the subject if there is an explicit subject, for example 'squirrel' in (4) and 'the cows' in (9h); and possibly even later in the clause but always before the verb (Ongaye 2004). However, these conjunctions cliticize to the left and any pause falls after the conjunction, (9e), (22). Thus, quite often the conjunction is phonologically part of the first clause but in terms of its structural position we must assume it is part of the second clause, resulting in a mismatch of phonology and syntax.

Some of these conjunctions have short (or cliticizing) and long (or independent) forms. This is the case with *oó*, *otoó* 'when, if', *eé*, *eteé* 'when, if', *ikka*, *ka* 'and', *úmma*, *maa* 'but'. Other conjunctions are *mo* 'or', *awta* 'time, when, whenever', *kande* 'if', *kat(i)* ~ *katin(i)* ~ *kaa(n)* 'if'. Conjunctions can be followed by the contrast clitic *-n* with subtle semantic differences depending on the conjunction, see example (2) where the addition of *-n* to the conjunction *awta* renders the event in the condition certain.

- (2) [kumantí<sub>S</sub> awta(-n)            i-de'-á]            [xorma<sub>O</sub>-sí i pidd-á]  
 Kumante    when(-CONTR) 3-COME-IMPERV    OX-DEM    3    buy-IMPERV  
 When Kumante comes (and he will), he will buy the ox. (Ongaye 2004: 49)

The main clause consists minimally of a subject pronoun and an inflected verb. The inflected verb is always clause final. The order of subject and object is relatively free. There are no major case distinctions between subject and object, but there are a number of non-core case clitics such as *-nne* instrumental, *-'é* dative, *-yyé* ~ *-é* setting/adverbial case, and *-opa* directional.

Non-main clauses differ formally from main clauses in two ways: (i) the (optional) subject clitic contains *a* rather than *i*; and (ii) the imperfective conjugation of the verb contains *o* rather than *a*. In the perfect there is no distinction in the verb conjugation, (3). We consider this a quality of the aspectual system and not a difference in syntactic status; any clause that has the possibility of containing a verb form in *o* or the set of subject clitics with *a* is considered to be a non-main clause, e.g., the first two clauses in (5). The

clauses introduced by *oó* or *eé* ‘when’ and marked by the setting suffix *-yyé* are non-main clauses, (4) and (5).

- (3) [eé assaapad-e-n], [waá a pagaara-’é kódd-it-i]  
 when think-PER-PL thing of good-3 become-3F-PER  
 When they were thinking, it became good.
- (4) ka [oó pató kammaa-yyé] [karrás ka kii-ní]  
 and when lose:3M:DEP behind-SET squirrel and say-CONT  
 Then, when he disappears, the squirrel says...
- (5) [otoó dáww-oo-yyé] [ka loallaa-se-né  
 when take.cattle.pasture-3M:DEP-SET and cattle<sub>O</sub>-DEM-PL  
 kálsh-oo-yyé,] [karrás i kii-ní]  
 go.home:CAUS:3M-DEP-SET squirrel 3 say-CONT  
 When he takes cattle out to pasture and brings the cattle home, the  
 squirrel says: ... (adapted from Daudey and Hellenthal 2004: Story 7: 12;  
 the first number refers to the number of the story in their appendix and  
 the second to the numbered sentence within that story)

All object relative clauses contain a subject clitic as initial element. Here, and elsewhere, the subtle difference between a single and a geminate consonant often marks important distinctions. For example, a second person subject in (6) would be *piitá:’oppá* replacing the first person subject clitic *n* by an extra glottal stop for second person subject, while the third person would be *piitá:’oppá* with only a single glottal stop. The setting clitic *-’é* can also be realized as consonant gemination on the initial consonant of the following verb, resulting in *piitáannoppáddaladáy* = (6).

- (6) piitá:n-[an-oppá-’e dalad-áy] Faáshi  
 land<sub>VCS</sub>:1-1DEP-DIR-SET born-PER Fashe<sub>VCC</sub>  
 The place where I was born is Fashe.

In subject relative clauses the subject pronoun is left out and the verb conjugation can be reduced in the sense that the singular masculine agreement is used. In (7) the verbal ending is only *i* (Karatte dialect) while the plural suffix *n* of the third person plural marking, which is normally required for the head noun *helloo* ‘children’, is not used.

- (7) helloo-siné aan-í  
 children<sub>S</sub>-DEM:PL go-PER  
 It is these children who went. (for example, despite explicit warning not to go).

Complement clauses (subject or oblique) have a conjunction/complementizer that is either the genitive particle *a* ‘of’, the demonstrative pronouns *iné* or *sedé* ‘this’, as in (8), or the conjunction *akkaa*. The position of *iné* is variable with no apparent difference in meaning, see example (8) from Ongaye (2004). The conjunction *iné* cannot occur after the verb of the complement clause.

- (8) (a) [*iné* kullayyú fatanaa-ppá tarp-ay-e]<sub>A</sub> inu<sub>O</sub> xasáysh-ay  
           **that** Kullayyo exam-at pass-PER-SET we please-PER  
       (b) [kullayyu *iné* fatanaa-ppá tarp-ay-e]<sub>A</sub> inu<sub>O</sub> xasáysh-ay  
           Kullayyo **that** exam-at pass-PER-SET we please-PER  
       (c) [kullayyu fatanaa-ppá *iné* tarp-ay-e]<sub>A</sub> inu<sub>O</sub> xasáysh-ay  
           Kullayyo exam-at **that** pass-PER-SET we please-PER  
           That Kullayyo passed the exam pleased us.

## 2. Clause linking

Clause linking in Konso is often indicated by the use of syntactic markers. The typical marker for coordinated clauses is the conjunction *ka*. *Ka* can be used between main clauses and non-main clauses. The semantic link between the two clauses linked with *ka* is open for interpretation. *Ka* can be considered to be the marker of addition or temporal succession. The syntactic position of *ka* is after the subject. When it occurs after the third person subject pronoun *i*, its consonant geminates forming *ikká*. The coordinator *ka* is also used for coordination at phrase level. The structure is A-*ka* B (monosyndetic postpositive on first coordinand). An intonation break or a pause falls after *ka*. The structure A-*ka* B-*ka* is not possible; not even for contrastive emphasis. In nominal coordination *ka* is interchangeable with *isho*<sup>e</sup>, e.g., *keltáyta-ka xánta* or *keltáy-t-isho xánta* ‘baboon and bees’, but *isho*<sup>e</sup> is not used for clause linking. These coordinators can link nouns, pronouns, adjectives, adverbial phrases, locative phrases, etc. A possessor or genitive noun, an adjective, quantifiers like *pisa* ‘all’ and *pátta* ‘only’, and case clitics can take a coordinated structure in their scope; possessives, demonstratives, and numerals cannot, see Mous (2005).

Non-main clauses are marked with a different conjunction; examples of these are *eteé*, *eé*, *oó*, *otoó*, all meaning ‘when, if’. The conjunctions *eé* and *eteé* are restricted to clauses with past tense. These non-main clauses can also be marked at the end by an adverbial case clitic, such as *-yyé* for ‘setting’ or *-’é* ‘dative’ for purposive clauses. Non-main clauses never follow the main clause, unless perhaps as afterthought.

At the end of the non-main clause but before an adverbial case clitic (if present) we can have postpositions such as *mallá* ‘because’, *kámmaa* ‘after’, *kápaa* ‘instead of’ to specify the semantic relation between the two clauses.

Medial verb constructions (converbs) are quite common in the Ethiopian language area but are not used in Konso. Nor does the language make much use of a speech report construction, which is so common in Ethiopia. There is a phrase *kii-ní* say-CONT ‘they say, it is said’ which is used to introduce direct speech, or is added to a clause to mark the text as narration, see the beginning of the story in example (9).

Table 1 summarizes the clause linking strategies arranged according to the semantic nature of the link and following the outline presented in Chapter 1. The complementation strategy that is used for purpose type of consequence (IIp) is not an instance of clause linking and only included to show this alternative strategy; likewise the disjunctive alternative marked by *immo* is not an instance of clause linking but rather one of sentence linking. In the remainder of this chapter we discuss the various strategies in this order and discuss general properties of Konso clause linking in section 3.

### 2.1. Temporal (I)

There are several ways in which the temporal sequence can be explicitly marked and these strategies can be combined:

- clause conjunction *ka*
- bridging linkage, i.e., repeat last clause as background for next
- conjunctions *éé*, *eteé*, *oó*, *otoó* ‘when, if’
- setting clitic *-yyé*
- postposition *kámmaa* ‘behind’

All these strategies can be combined and frequently are, for example, in chains of time-related clauses in narratives during the initial development of a story. Temporal linking has the following structure:

[*éé/eteé* or *oó/otoó* ‘when’ + clause<sub>1</sub> *kámmaa* ‘behind’-*yyé* ‘setting’]<sub>SC</sub> [*ka* ‘and’ + clause<sub>2</sub>]<sub>FC</sub>

The supporting clause may be a repetition of the preceding focal clause that is marked at beginning and end as backgrounded. The focal clause is linked by *ka* (after the subject) to the preceding clause.

- (9) Example from a story: (Daudey and Hellenthal 2004: Story of Buubba and Logota Gumoja)

|     |             |                        |                            |      |          |
|-----|-------------|------------------------|----------------------------|------|----------|
| (a) | [buúbba     | ka                     | Logotágumoja] <sub>A</sub> | ikká | tikaá    |
|     | buubba      | and                    | logotagumoja               | and  | house:of |
|     | maammata-tí | aannaa <sub>O</sub> -w | tey-ní                     | ka   |          |
|     | aunt-SPEC   | milk-again             | take-CONT                  | and  |          |



TABLE 1. Overview of linking types (see Chapter 1)

| Function                    | Form  |                                    | Marker of linkage  |
|-----------------------------|---|------------------------------------|--|
| I Temporal                  | [SC][ <i>ka</i>                                   | FC]                                | conjunction ‘and’ in 2nd clause  |
| Is Temporal succession      | [SC <sub>yyé</sub> ] <sub>non-main</sub>          | [FC]                               | case clitic for setting on 1st clause  |
|                             | [ <i>eé/oó</i> SC] <sub>non-main</sub>            | [FC]                               | conjunction ‘if, when’ in 1st clause   |
| Ir Relative time            | [SC <i>kámmaa-yyé</i> ]                           | [FC]                               | postposition ‘after’ and case clitic for setting on 1st clause   |
|                             | [SC][ <i>ka</i>                                   | <i>tura-nne</i> FC]                | conjunction ‘and’ and postposition ‘before’ as adjunct in 2nd clause                                   |
|                             | [SC][ <i>ka</i>                                   | <i>sékkámmaa</i> yyéFC]            | conjunction ‘and’ and postposition ‘after’ with clitic for setting as adjunct in 2nd clause            |
| Ic Conditional              | [ <i>eé/oó</i> SC] <sub>non-main</sub>            | [FC]                               | conjunction ‘if, when’ in 1st clause   |
|                             | [ <i>kande</i> SC] <sub>non-main</sub>            | [FC]                               | conjunction ‘if only’ in 1st clause  |
| IIc Consequence: cause      | [SC <i>mallá</i> ]                                | [FC]                               | postposition ‘because’ on 1st clause   |
| IIr Consequence: result     | [SC][ <i>ka</i>                                   | ( <i>sé(de)</i> ) <i>mallá</i> FC] | conjunction ‘and’ and postposition ‘because, therefore’ as adjunct in 2nd clause                       |
| IIp Consequence: purpose    | [ <i>akkaa</i> FC’ <i>e</i> ] <sub>non-main</sub> | SC                                 | dative case clitic on complement clause introduced by complementizer <i>akkaa</i> (not clause linking) |
| III Possible consequence    | [FC]  | [ <i>yooxi</i> SC]                 | exclusive disjunction ‘or’ in 2nd clause   |
| IV Addition                 | [SC]  | [FC]                               | apposition   |
|                             | [SC][ <i>ka</i>                                   | FC]                                | conjunction ‘and’ in 2nd clause  |
| IVc Contrast                | [SC][ <i>maá</i>                                  | FC]                                | conjunction ‘but’ in 2nd clause  |
|                             | [SC]  | [ <i>úmma</i> FC]                  | adverbial ‘however’ in 2nd sentence (sentence linking)   |
| Vd Alternative: disjunction | [Clause]  | [ <i>yooxi</i> Clause]             | exclusive disjunction ‘or’ in 2nd clause   |
|                             | [Sentence][ <i>immo</i>                           | Sentence]                          | disjunction ‘or’ in 2nd sentence which is question   |
| Vr Alternative: rejection   | [SC <i>kápaa</i> ]                                | [FC]                               | postposition ‘near, instead of’ on negative 1st clause   |

- (b) aánnaa-w tey-níí ka parré i an-ní ka  
milk-again take-CONT and tomorrow 3 go-CONT and  
aánnaa<sub>O</sub>-w tey-ní.  
milk-again take-CONT
- (c) oorí aannaa<sub>A</sub>-se-ne-’é hellaa-n gohni-y,  
then milk-DEM-PL-3 child-INST grow:CONT-SET  
maammata-sé isí pákt-e.  
aunt-DEM self fed.up-PER
- (d) etée isí pákt-e kammaa-yyé, geett-é ka  
when self fed.up-PER behind-SET take:F-PER and  
okkatta-se-’é ishoota-’é daass-é.  
COW-DEM-3 3PL-DAT give:F-PER
- (e) eé ishootad-daass-é kammaa-yyé, ishoota-kká  
when 3PL:DAT-give:F-PER behind-SET 3PL-and  
teykanaa-yyé eennan-ní  
morning-SET milk:MID:PL-CONT
- (f) ka kalaakalaa-yyé eenni-ní ka  
and afternoon-SET milk-CONT and
- (g) eenni-ní ka eenni-ní nakay-ni ka  
milk-CONT and milk-CONT spend.whole.day-CONT and  
eenni-ní nakay-ní.  
milk-CONT spend.whole.day-CONT
- (h) okkatta-sé ka to’o-t-é.  
COW<sub>S</sub>-DEM and die-F-PER
- (i) eé to’o-t-é kammaa-yyé, maammata-sé kap-opaá  
when die-F-PER behind-SET aunt-DEM near-DEST  
aan-é-n,  
go-PER-PL
- (j) ka kii-ní: “hammaamma! okkatta-sé i-to’ot-é”...  
and say-CONT INTERJ:aunt:VOC COW-DEM 3-die:F-PER...
- (a) Buubba and Logota Gumoja took milk from the house of their aunt.  
(b) Day after day they went there to take milk.  
(c) Then, when this milk made the children grow, the aunt was fed up with them.  
(d) After she was fed up with them, she took the cow and gave it to them.  
(e) When she had given them the cow, they started to milk it in the morning, and  
(f) again in the afternoon, and

- (g) they went on milking the whole day.
- (h) Then the cow died.
- (i) After it died, they went to the aunt
- (j) and said: “Ayyy, aunt! The cow died!”...

2.1.1. *Temporal succession (Is)* Temporal succession in narratives is expressed using a combination of strategies as exemplified above. The strategies are each sufficient in themselves and need not be combined. It is very common indeed that clauses in a temporal succession of events are linked only by the conjunction *ka*. The clauses are all focal clauses, if they are equal in pragmatic salience. They can still be interpreted as being in chronological order. In such a succession one could view all clauses but the last one as supporting clauses to the last one; and indeed this penultimate clause is marked as setting by the suffix *-yyé* in (10) but the nature of this series is not so much one of building up to the final event; rather it is a series of equally salient routine activities in the morning, and hence our interpretation of a series of focal clauses.

- (10) (a) [isheetá<sub>S</sub> i xa'a-t-í]<sub>FC</sub> [-**ka** dakint-aád-i jag-at-t-í-]<sub>FC</sub>  
           she           3 wake-F-PER-**and** body-3SG.POSS-3 wash-MID-F-PER
- (b) [**ka** ness-att-í]<sub>FC</sub>  
           **and** rest-MID:F-PER
- (c) [tiká<sub>O</sub> (kará) saha-t-í]<sub>FC</sub> [-**ka** sekkammaa-yyé]<sub>FC</sub> [sook-t-í]<sub>FC</sub>  
           house (inside) clean-F-PER-**and** here.after-SET leave-F-PER  
           She got up, washed herself, took a rest, cleaned the house, and went out.

The clitic *-ka* usually connects clauses with the same subject. In (11), no subject pronoun *i* can be used after the conjunction *ka* since that would suggest a shift in focus as regards the subject. Sometimes the use of the clitic *-ka* was not accepted because of a marked shift in focus to a new subject, (12). This last example shows that apposition is possible. A change of subject is possible in clauses that are linked with *ka*, specifically when the shift of subject does not really involve focus on the new subject.

- (11) [isheetá i keer-t-í]<sub>SC</sub> [-**ka** pi'-it-í]<sub>FC</sub>  
       she<sub>S</sub>       3 ran-F-PER-**and** sit-F-PER  
       She ran and fell.
- (12) [Antó-ka/isho Ongayé Attisi-pá aan-í-n]<sub>SC</sub> (\***ka**) [Ota  
       Anto<sub>S</sub>-and Ongaye<sub>S</sub> Addis-DIR go-PER-PL Oda<sub>S</sub>  
       Attisi-pá i aan-e-w]<sub>FC</sub>  
       Addis-DIR 3 go-PER-**too**  
       Anto and Ongaye went to Addis and Oda went too.

The clitic *-ka* appears in the position after the subject in the second clause, (4). However, in almost all instances in stories where *ka* coordinated clauses (and the examples are plentiful) the subject of the second clause was not explicit (because usually identical) and *ka* appeared between the two clauses.

There is also a word *ikká* which is used instead of or in addition to the clitic *-ka*. *Ikká* is used when there is a contrastive change in subject, as in (13).

- (13) [waaga-’é elá-n lellá]<sub>SC</sub> [i-**kká** xata pishaá waal-á]<sub>FC</sub>  
 god-DAT up-1 tell:1PL 3-**and** down water<sub>S</sub> flow-IMPERV  
 We report to God and water will flow down.

2.1.2. *Relative time (Ir)* Relative time is expressed by postpositions such as *kammaá* ‘after, behind’. This postposition can have a clause as its complement, forming the supporting clause (SC) that precedes the focal clause (FC). ‘Before’ can be expressed in a similar fashion by the postposition *tura* ‘before, in front of’ but this is used only rarely in texts.

- (14) (a) [alekayteetá-n mal-oo-sí-tí-n jar-eé-n]<sub>SC</sub> **kammaá**  
 many.times-INST system-DEF-DEM-SPEC-INST stay-PER-PL **after**  
 (b) [orrá i kod-aayshó ishootá gara-’é kay-é]<sub>FC</sub>  
 people 3 work-their they ON-DAT reach-PER  
 After they applied this trick many times, people disclosed what they were up to.

In most cases of such supporting clauses with *kammaa* ‘after’ indicating the relative time, there is also an initial conjunction, *oó* ~ *otoó*, (15), *eé* ~ *eteé*, or *awtá*. The conjunctions *oó* and *eé* seem to be interchangeable in this function.

- (15) (a) [oó xampiraá mukittáa kal-án **kammaá**]<sub>SC</sub>  
**when** birds sleep return.home-IMPERV:PL **after**  
 (b) [tukkant-oppaá damtá faddatta-’é sook-ní]<sub>FC</sub>  
 darkness-at food look.for:NOMZ-DAT go.out-CONT  
 When birds go home to sleep, then they go out in darkness to look for food. (Korra Garra 2003)

The supporting clause with the postposition *kammáa* almost always contains an additional adverbial marker *-yyé*, which explicitly marks it as a non-main clause, that is, a supporting clause for the following focal clause, (16). This is also true for clauses that are headed by the conjunctions *oó* or *eé* ~ *eteé* ‘when, if’.

- (16) i kii-ní **kammaa-yyé**, ol-minaá de’-e-né  
 3 say-CONT **behind-SET** each-facing come-PER-PL:DEP

kii-ní ka kii-ní:  
say-CONT and say-CONT

Later on they met each other and he said... (Daudey and Hellenthal 2004: 31)

The postposition *kammaá* can be used adverbially, often with the demonstrative base *sédé*, and mostly with the setting clitic *yyé* yielding *sekkammaayyé* or *sedekkammaayyé* ‘hereafter, and then’, as in (10). The postposition *kammaá* ‘afterwards’ can be used adverbially even without these additional morphemes.

Anti-chronological temporal order ‘beforehand’ is marked with a postposition *turá* ‘before, in front of’ with an instrumental case clitic *-nneé*, acting as an adverb, (17).

- (17) (a) **ka tura-nneé-w orraá turk-oo-se-n**  
**and before-with-too** people:of cemetery-DEF-DEM-PL  
 kapa’é lakkí lakkí  
 near two two
- (b) kod-d-eetá-n gindá afurií desá  
 make-SGLTV-NOMZ-by direction four side  
 Beforehand the people had posted two people in hiding at all four corners of the cemetery. (Korra Garra 2003).

Other temporal links such as ‘until’, ‘when’, ‘while’, ‘since’ do not require specific markers but depend on interpretation. The interpretation of ‘until’ is mostly found with clauses that are simply connected by *ká* and for which the last clause expresses an endpoint, (18).

- (18) (a) [i-kká porá-n xata tuttugt-é]  
 3-and road-CONTR downwards INTENS:drop-PER
- (b) [**ka** tika-sé a opá Garooté kapá-n kay-t-é.]  
**and** house-DEM of ASSOC garoote near-CONTR reach-F-PER  
 And dropped [ash] on the road until he reached the house of Garoote.  
 (Daudey and Hellenthal 2004: Story of Eepoote & Garoote: 67)

Two events that occur at the same time are expressed by means that have already been discussed. A clause initiated by *éé* ‘when’ and followed by the postposition *kammaá* plus setting marker *-yyé* not only serves to express ‘after’ but can also be used in situations that are interpreted as “while”.

2.1.3. *Temporal: conditional (Ic)* The conditional clause is usually marked the same way as the temporal one, that is with conjunctions *éé* or *oó* ‘when, if’. All the conditional sentences in stories are marked this way, (19).

- (19) (a) [[ammá oó-n ann-ó]<sub>SC</sub> [ka paáta<sub>O</sub> takká  
 now when-1 go:PL-DEP and property one  
 takká geenn-oo-yyé]<sub>FC</sub>]<sub>SC</sub>  
 one take:PL-DEP-SET
- (b) [[ammá takkaayyé inoó<sub>O</sub> gap-á-n]<sub>SC</sub> [ka inoó<sub>O</sub>  
 now probably 1PL catch-IMPERV-PL and 1PL  
 leysh-a-neé-y]<sub>FC</sub>]<sub>FC</sub>  
 kill-PER-PL-SET  
 So if we go now and steal things one by one they may catch us and  
 kill us. (Daudey and Hellenthal 2004: Story 4: 50)

## 2.2. Consequence (II)

A supporting clause expressing cause has a postposition *mallá* ‘reason, because, therefore’ added to the clause. When used on the focal clause, however, *mallá* expresses the result type of consequence. Purpose kind of consequence is expressed using a completely different strategy, namely through a preposed focal clause that is subordinate (or a complement clause) and marked as such by a dative case clitic.

2.2.1. *Consequence: cause and result (IIc+r)* The supporting clause that expresses the reason or cause for something else to happen contains the clause-final marker *mallá*. In (20), two reasons are given, both are marked as reason clauses and the two are linked with *ka*. The sentence is a bit complex because it starts with a focal clause (a) which is not finished but interrupted by the reason clauses (b) and (c) and taken up again in (d).

- (20) (a) [oorí sekkammaayyé keltaytá ishó’ yoytá]<sub>FC</sub>  
 then afterwards baboon and wolf
- (b) [gootáá kappin-oppá porá ann-aá-n *mallá*]<sub>SC</sub>  
 about forest-at road go-IMPERV-PL because
- (c) [gootáá rakkann-aá-n [atootá<sub>A</sub> ka ishootá<sub>O</sub>  
 about have.problems-IMPERV-PL sun and 3PL  
 kup-ni-tt-ó] *mallá*]<sub>SC</sub>  
 burn-CONT-F-DEP because
- (d) [i assaapad-e-n]<sub>FC</sub> [ka kii-ní]:  
 3 think-PER-PL and say-CONT  
 After this Baboon and Wolf were thinking, because they were going  
 on the savannah and because the sun was burning them, and they  
 said...  
 (Daudey and Hellenthal 2004: Story 3: 23)

*Mallá* is in fact a postposition, e.g., *ké-mallá* ‘because of you’, from a noun meaning ‘reason’. *Mallá* is a noun to which a relative clause is added in its first occurrence in (21). The final clause is focal and the series of clauses preceding it (and forming support) are structured in two supporting clauses leading to the focal clause expressing the fires being fires of spirits, which in itself is supporting the final focal clause expressing that people would be afraid.

- (21) (a) [waá [mallá golpayaá hat-ee-n-é oó  
 thing reason he.goats:of steal-PER-PL-DEP when  
 turk-adaa-ppá gal-an]]<sub>SC</sub>  
 cemetery-PL-in slaughter-PL
- (b) [oó apittá-n waat-an-n-aan-ee-yyé]<sub>SC</sub>  
 when fire-INST roast-MID-PL-?-DEP-SET
- (c) [[akkaá orrá kid-ó]<sub>FC</sub> [apitt-oo-sé apittaá  
 thus people<sub>s</sub> say-DEP fire<sub>VCS</sub>-DEF-DEM fire:of  
 kaariyyaá]<sub>FC</sub>] + <sub>SC</sub>  
 spirit<sub>VCC</sub>
- (d) [ka fuur-ó mallá]<sub>FC</sub>  
 and fear-DEP because

The reason why they slaughtered the he-goats that they stole in the cemetery is that when they roasted on the fire, people would say this fire is the fire of spirits and therefore they would be afraid. (Korra Garra 2003)

The last clause in (21) expresses the result of the previous clauses. *Mallá* is here used as a postposition. Its use as a postposition is most common in the supporting clause marking reason but here it is used on the second, focal clause, marking result, ‘therefore’. This is also one of the rare instances where we have a non-main clause in final position.

When used as an adverbial, often added to a demonstrative pronominal *sé(dé)*, *mallá* means ‘therefore’, expressing result and introducing the focal clause, (22).

- (22) [haá-rakkootá sédé in-gap-á]<sub>SC</sub> [ka, mallá takmoo-sé  
 INTERJ-problem this 1-have-IMPERV and because honey-DEM  
 kanní]<sub>FC</sub>”  
 sell:CONT

I have this problem and therefore I am selling this honey. (Daudey and Hellenthal 2004: Story 4: 38)

2.2.2. *Consequence: purpose (Iip)* Both the result and purpose consequence clauses have in common that the complementizer *akkaá* ‘that, how, in order

to, so that' is used (with non-main clauses). The complementizer *akkaá* is used to introduce the complements of verbs such as 'to know', 'to hear', 'to see, understand', etc. In (21c), and (23) below, however, the *akkaá* clauses are not complement clauses. The most common method to link a clause as a purposive clause is to have a non-main clause introduced by the complementizer *akkaá* and suffixed with the dative marker -'é, (23). The precise function of this dative marker is still ill understood.

- (23) [akkaá tiká hikad-o]<sub>FC</sub>-í-n ishá gargar-é  
       that house build-DEP-DAT-1 3SG.M help-PER  
       I helped him to build a house.

The dative marker -'é can also be used after a purpose phrase containing a nominalized verb, as in (24) and (25).

- (24) innaannó golpaytá pidd-a-'é urmala-pá aan-é  
       child:1PL.POSS goat buy-NOMZ-DAT market-DEST go-PER  
       Our brother went to the market in order to buy a goat.
- (25) tikaá moottiyo-pá-n jagaá ik-a-'é aan-é  
       house:of friend:1SG.POSS-DEST-1 beer drink-NOMZ-DAT go-PER  
       I went to my friend's house to drink beer.

### 2.3. Possible consequence (III)

Possible consequence can be expressed by the exclusive disjunction *yooxi* ~ *yooxini* 'or', (26). Neither of the clauses needs to contain a negation.

- (26) [waayyó daash-e]<sub>FC</sub> [yooxini ke-o-n gidáy]<sub>SC</sub>  
       mine give-IMP or 2SG-1 beat  
       Give me mine or otherwise I will beat you! (Black and Shako 1974)

The exclusive disjunction *yooxi* 'or' need not express possible consequence but can simply conjoin two options excluding each other, both at clause level (27) and at phrase level (28).

- (27) dámaa dam-e yóoxini jágaa ik-e  
       bread eat-IMP or beer drink-IMP  
       Eat bread or drink beer! (Black and Shako 1974).
- (28) ánaa yóoxini ke aan-a  
       I or you go-IMP  
       Either I or you go! (Black and Shako 1974).

It is together with a following clause depicting an undesirable event that the *yooxi* clause is interpreted as "possible consequence" as in (26) above. In fact,



there is no linking strategy that is specific for “possible consequence”. Possible consequence can also be expressed by the postposition *mali* ‘without’ with the setting clitic *-yyé* added to a noun plus relative clause as in (29) which literally means ‘without the thing that you tell me, our friendship will go away; the other (thing) you tell me’.

- (29) *eé*      *xo'on-oo-yyé*, *i*    *kii-ní:*      [*a'os-sé-n*                      *ana-'é*  
           **when**    love-DEP-SET    3    say-CONT    2:of:thing-DEM-CONTR    1SG-DAT  
           *lel-t-o]*                      ***mali-yyé***                      [*moottuminnos*    *i*    *haas-á*],  
           tell-2SG-DEP    **without-SET**                      friendship:our    3    leave-IMPERV  
           *a'-taaka-tí*                      *illel-t-a.*”  
           of-other-SPEC    2:tell-2SG-IMPERV  
           Because he loved [him], he said: “You have to tell me, otherwise our  
           friendship will end.” (Daudey and Hellenthal 2004: Story 9: 34)

#### 2.4. Addition (IV)

Addition is expressed either by the conjunction *ka* or by the clitic *-ew*. The usage of *ka* is broader than that of *-ew*. The clitic *-ew* is used only in comparable situations. Addition is distinct from repetition. Repetition of events is expressed by repetition of the clause and the conjunction *ka*, as in (9) sentence g.

2.4.1. *Unordered addition (IVa)* Events that are not ordered in time are linked by *ka*; their order can be swapped with no difference in meaning.

- (30) [*Korra*    *muuseta*    *dam-é]*    [*Dinoote-(i)-kká*    *nyaanynyaá*    *dam-é]*  
       *Korra*    *banana*    eat-PER    *Dinoote-3-and*    *tomato*            eat-PER  
       *Korra* ate a banana and *Dinoote* ate a tomato.

2.4.2. *Same-event addition and elaboration (IVs + e)* The clitic *-ew* (Fashe dialect) or *-w* (Karatte dialect) ‘too, as well; only’ is added to the end of a noun phrase or clause finally to a verb. When the clitic is added to the verb, it indicates that the statement is comparable to an earlier statement; it may be used to express same-event addition (31). The conjunctions *ka* and *-(e)w* are used independently of each other and can freely co-occur.

- (31) *isha<sub>S</sub>-n-nefo*      *i-pi'-ay-éw*  
       he-CONTR-also    3-fall-PER-too  
       and he fell too.

The function of the clitic *-ew* is to mark a number of entities as “complete”, either in comparison to other comparable entities (‘only’), or to each other (‘too, also’). When added to a constituent it expresses the uniqueness of this constituent. It is added to the complete NP and cannot be added to part of an NP, (32).

- (32) isha [siploota-ka payraa]-nné-w gotá got-í  
 he<sub>S</sub> digging.stick-and rake-with-too work work-PER  
 He worked with only a rake and a digging stick.

The clitic *-w* puts emphasis on the addition. The ‘too, also’ meaning of the clitic *-(e)w* is not limited to when it is cliticized to the verb. When it is cliticized to a phrase in a clause describing a situation that is comparable to an earlier situation, the meaning of ‘too, also’ rather than ‘only’ can be conveyed, e.g., *Attis-pa-w anni* ‘they go to Addis too’.

## 2.5. Contrast (IVc)

Contrast is expressed by *maá* or *úmma*. The element *maá* is an adversative conjunction, (33), (34). The adversative conjunction is relatively rare in stories. The second clause is often negative but need not be.

- (33) i keer-t-é **maá** i pi'-t-é  
 3 run-F-PER **but** 3 fall-F-PER  
 She ran but fell.
- (34) in deé **maá** aré in có  
 1 come:PER **but** here 3:NEG be.not  
 I came but he wasn't here. (Black and Shako 1974)

The particle *maá* negates the following NP when *maa* + NP follows the sentence as a one word clause.

- (35) [antí<sub>A</sub> ishá<sub>O</sub>-n jaalanni]-[**maá** isheéta<sub>O</sub>-n]  
 I him-1 like-but her-NEG  
 I like him not her.

The element *maa* is similar in function to the conjunction *úmma*, (36), (37). However, the clause after *úmma* can only be negative. Note that the mirativity translated with ‘but’ in the first clause of (36) is expressed in the interjections. The clauses with *úmma* are independent and the link that is expressed in *úmma* is between sentences rather than clauses.

- (36) (a) atá aappa-sé [loállaa<sub>O</sub> siks-ann-ó] ata  
 INTERJ father<sub>VCS</sub>-DEM cattle herd-MID:CONT-DEP INTERJ  
 seetána  
 devil<sub>VCC</sub>
- (b) ishoottä **úmma** in-up-á-n ka mag-ee-né  
 3PL<sub>S</sub> **but** 3:NEG-know-IMPERV-PL and bend-PER-PL  
 kii-ní  
 say-CONT

But this person which herded cattle was the devil. But they did not know it. So they bent their way. (Daudey and Hellenthal 2004: Story 4: 59, 60)

- (37) (a) [xatta-yyé karmaás] [kii-ní] [ka murá karaa-yyé  
past-SET lion say-CONT and forest in-SET  
kal-á]  
live-IMPERV

- (b) [ishá pattá úmma oppaá-yyé namaáo [ishá  
3SG.M only but at-SET man 3SG.M  
gaargaaro]-n gapó]  
help-NEG have:NEG

In the past there was a Lion and he lived in the forest. He was alone and did not have anybody to help him. (Daudey and Hellenthal 2004: Story 3: 1, 2)

In (38) *úmma* does not oppose to the immediately preceding clause. Rather all the clauses are contrasted to what precedes in the story and the series of *úmma* clauses are coordinated and not contrasted to each other; yet another sign that *úmma* links sentences rather than clauses into a sentence.

- (38) (a) toolá tik-oppaá-n có, úmma hellaá eeyyé-n  
family house-at-NEG be:NEG but.also child there-NEG  
caá-n,  
be:IMPERV-PL

- (b) úmma aappaá eeyyé-n có, úmma ahata  
but.also father there-NEG be:NEG but.also mother  
eeyyé-n kitto.  
there-NEG be:NEG:F

(When he went to his friend's house, he carried this baboon's cub on his shoulder and went with it a little while like this.) The family was not at home, the children were not there, father was not there, mother was not there. (Only one child they had put to sleep there, in the house of the person that had sold the salt before.) (Daudey and Hellenthal 2004: Story 5: 27)

## 2.6. Alternatives (Vd, Vr, Vs)

Alternatives are expressed by the conjunction *yooxi* 'or' that expresses exclusive disjunction as we have seen in (27) and (28). Disjunctive coordination of clauses can also be expressed by the coordinator *im* ~ *-mmo* ~ *mo*, (39). The disjunctive marker *immo* and its variants differs from the other disjunctive

markers in that it introduces a question; the clause after *immo* is always a question. The same conjunction *immo* can be used between nouns, e.g., *damáám(mo) jágáa* ‘is it bread or beer?’ (Black and Shako 1974).

- (39) i-kká            kii-ní:        “[Aná    eéla        faayyan][**-ím**    ké  
       3-and        say-CONT 1SG    upwards climb-or    you  
       xata        de’-ní]”  
       downwards descend-CONT:Q  
       And he said: “Do I climb upwards or you climb downwards?” (Daudey and Hellenthal 2004: Story 8: 25)

The rejection type of alternative meaning ‘instead of’ is marked by the postposition *kapaá* ‘near, instead of’ at the end of the alternative expressed in the first clause, (40).

- (40) [an    sookad-u            **kapaá**] oha    in    an-a  
       1NEG go.to.field-1.NEG **instead** fodder 1    go-IMPERV  
       Instead of going to the farm, I will cut grass.

### 2.7. Manner: real and hypothetical (*VIr + h*)

Clauses are seldom linked expressing manner in Konso. What is very common is that a clause is referred to in a following clause with *assé* ‘such, like this’, for example in (41). The word *asse* can be used with the conjunction *ka* ‘and’ to form *ka assé* or *kasse*, but this is seldom used to connect clauses.

- (41) (a) Garooté ka kii-ní        “aappa-daá maana-’é-ggapta?”  
       garoote and say-CONT father-PL    what-DAT-2:have:2:IMPERV  
       (b) assé garaa-yyé dawr-it-é  
       like on-SET prohibit-F-PER  
       But Garoote said: “What kind of fathers you have!” Like this she prohibited her. (Daudey and Hellenthal 2004: Eepoote & Garoote: 80)

## 3. Conclusions

Table 2 summarizes the various linking strategies arranged according to strategy, not function. The arrangement according to function was presented in Table 1.

The following conclusions can be drawn from the summarizing table: The linkage between clauses is nearly always morphologically marked. The most common way of linking clauses is by the generic marker *ka*. The semantic nature of the linkage by *ka* is open to interpretation from context. The linkage

TABLE 2. Summary arranged according to linking strategy

| Form  |   | Meaning                                     | Function | Examples         |
|---|---|---|----------|------------------|
| <b>Apposition</b>                                 |   |   |          |                  |
| [SC]  | [FC]  | elaboration                                 | IVe      | (12)             |
|   |   | say: direct speech                          | IVe      | (29) etc.        |
| <b>Conjunctions</b>                               |   |   |          |                  |
| [ <i>eé/oó</i> SC] <sub>non-main</sub>            | [FC]  | temporal relative time                      | Is       | (15)             |
|   |   | conditional                                 | Ic       | (19)             |
| [ <i>kande</i> SC] <sub>non-main</sub>            | [FC]  | hypothetical                                | Ic       |                  |
|   |   | conditional                                 |          |                  |
| [ <i>akkaa</i> FC' <i>é</i> ] <sub>non-main</sub> | [SC]  | purposive consequence                       | IIp      | (23)             |
| [Clause1][ <i>immo</i>                            | Clause2]                                    | disjunctive addition                        | Vd       | (39)             |
| [SC][ <i>maá</i>                                  | FC]   | contrast addition                           | IVc      | (33), (34), (35) |
| [SC][ <i>ka</i>                                   | FC]   | temporal, addition, default                 | I, IV    | (9) (30) (18)    |
| <b>Case clitics</b>                               |   |   |          |                  |
| [SC <sub>yye</sub> ] <sub>non-main</sub>          | [FC]  | temporal relative time                      | Is       | (3)              |
|   |   | purposive consequence                       | IIp      | (23)             |
| [ <i>akkaa</i> FC' <i>e</i> ] <sub>non-main</sub> | [SC]  |   |          |                  |
| <b>Postpositions</b>                              |   |   |          |                  |
| [SC <sub>mallá</sub> ]                            | [FC]  | causal consequence                          | IIc      | (20)             |
| [SC <sub>kapaá</sub> ]                            | [FC]  | rejection alternative                       | Vr       | (40)             |
| [SC <sub>kammaa</sub> (-yyé)]                     | [FC]  | temporal relative time                      | Ir       | (14), (15), (16) |
| <b>Adjunct</b>                                    |   |   |          |                  |
| [SC]  | [ <i>yooxi</i> ( <i>ni</i> )FC]             | disjunctive addition; possible consequence; | Vd III   | (29) (26)        |
| [SC]  | [ <i>turá-nne</i> FC]                       | temporal relative time                      | Ir       | (17)             |
| [SC]  | [ <i>sékkammaa</i> yyéFC]                   | temporal relative time                      | Ir       | (10c)            |
| [SC] [ <i>ka</i>                                  | ( <i>sé</i> ( <i>de</i> )) <i>mallá</i> FC] | causal consequence                          | IIr      | (22)             |
| [Sen1]  | [ <i>úmma</i> Sen2]                         | negative contract addition                  | IVc      | (36), (37), (38) |

is marked by a conjunction that belongs structurally to the second clause but may be cliticized to the first clause. These conjunctions are also used as coordinators at phrase level. Their clause-level syntactic position is after the subject, if there is an explicit subject. If there is no explicit subject, they appear to occur between clauses. Since these conjunctions cliticize to the left, any pause between clauses falls after the conjunction in those cases. This is shown graphically in the table.

When there is a clear syntactic distinction between supporting and focal clause, the linear order and the logical or chronological order mostly coincide. The marking of the linkage is in the first clause (supporting clause) and is expressed by one or several of the following: conjunction, case clitic, postposition, non-main clause marking on the verb.

Postpositions can be used adverbially in the second clause to link sentences. Since this is sentence linking rather than clause linking, there is no clear distinction between supporting clause and focal clause in these instances.

There are additional stylistic devices such as bridging (tail-head) linkage to mark temporal order in the lead up part of the narrative.

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# The Semantics of Clause Linking in Mali

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Clause linking in Mali is striking for the fact that there are no strategies of nominalization, no contrasts between finite and non-finite verbs, and no switch-reference marking, which would invite an analysis of clause linking in terms of subordination or make it possible to speak in terms of structurally distinctive main versus non-main clauses. Nevertheless there are functional differences between clauses, and a rich range of semantic contrasts in relations between clauses may be marked by grammatical words or clitics within the clause, generally in initial position. In the main these relations are marked by specialized particles but adverbs also play a significant role in organizing the semantic relations between clauses.

## 1. Background

Mali (Stebbins in press) is a member of the Baining language family. The Baining languages are a non-Austronesian group of (probably) closely related languages, spoken on the island of New Britain. Mali is spoken in the south-west Gazelle Peninsula. The other languages in the family include Kaket, Simbali, Kairak, and Ura. The term ‘Baining’ refers both to the language family and to its speakers who collectively self-identify as members of a superordinate ethnic group.

Mali has two recognized dialects. Arongda refers to the variety spoken in the mountains and in the village of Marunga, which was settled by mountain dwellers. Abilta refers to the variety spoken around the coast. My data were mainly collected in Marunga but stories from the Abilta dialect were also collected and incorporated into the study.

Mali currently has approximately 2,200 speakers and there is a clear inter-generational shift towards Tok Pisin, the English-based creole used as a lingua

franca across much of Papua New Guinea. Although Mali continues to be the first language children in Mali families acquire, they are typically fully bilingual in Tok Pisin by the age of 10. Few Malis of any age can talk in Mali without code switching to Tok Pisin. The high frequency of use of Tok Pisin in the community is fostered by the social convention of accommodating to the language abilities of everyone present. This means that, in a group containing one non-Mali speaker, the entire group will use Tok Pisin. There are many contexts in Marunga, including virtually all public contexts (community meetings, church services, for example), in which non-Mali speakers are present. As a result, Tok Pisin is used regularly in these contexts or when discussing these contexts at other times. Non-Mali speakers in Marunga include members of other neighbouring ethnic groups whose gardens and plantations are close to the village and professionals such as teachers and health workers who work at the school and in the health clinic.

The traditional Baining economy was based on shifting agriculture (taro is the staple of choice) as well as hunting and seasonal food gathering.

## 2. Typological profile

Mali is an agglutinating language with noun class marking, agreement, and 'phrasal verbs' (see Table 1).

Word classes in Mali include nouns (which take articles and noun class marking), verbs (approximately 70 per cent of which have mutations for tense), adjectives, and adverbs. There is quite a lot of overlap between nouns and some adjectives (e.g., human propensity), and also some adjectives (e.g., physical property) and verbs, with only narrow criteria available to distinguish between them. There are also large sets of morphologically complex locational/directional terms and a complex system of demonstratives.

The following graphs and digraphs should be noted: <v> = /β/, <th> = /ɬ/, <y> = /j/, <ch> = /ç/, <ng> = /ŋ/, <ē> = /ə/. The apostrophe <'> is used to

TABLE 1. Head and dependent marking strategies in Mali-Baining

| Patterns                           | Strategy in Mali-Baining                    |
|------------------------------------|---|
| Possessive phrase                  | possessive pronoun on possessed noun        |
| Attributive phrase                 | noun class marking on attributive           |
| Adpositional phrase                | preposition followed by NP or spatial term  |
| Clause relations: A/S <sub>A</sub> | concordial pronoun before the verb          |
| O/S <sub>O</sub>                   | concordial pronoun or NP following the verb |
| Modifiers within NPs               | relator; no other signal of dependency      |



distinguish between an alveolar nasal followed by a voiced velar stop <n'g> and a velar nasal <ng>. A great deal of the phonological complexity of Mali is not apparent in this chapter as the representation used here is morphophonemic.<sup>1</sup>

### 3. Structure of Mali clauses

The predicate includes pronouns that index core arguments and may code for tense (class I codes A/S<sub>A</sub> arguments and is either unmarked for tense or codes past tense, and class II codes A/S<sub>A</sub> arguments and non-past tense; class III codes O/S<sub>O</sub> arguments without contributing to the tense marking system). Many verbs have stem-initial alternations that reflect tense (Type A distinguish present from past and from future while Types B and C make a present/non-present distinction and Type D are non-inflecting). Table 2 provides a summary of the patterns involved using the first person singular pronouns *ngua* 'class I' and *ngu* 'class II'. Note that non-inflecting pronouns + verbs make a past/non-past distinction based on the form of the pronoun alone.

Mali has AVO constituent order with a split-S system (A and S<sub>A</sub> arguments are indexed by pronouns that precede the verb, O and S<sub>O</sub> arguments follow the verb). See examples (1–3).

S<sub>A</sub> V

- (1) *Vanessaki tor mētkamachērir-ka*  
 Vanessa3f.sg.IIwash.PRESin ART stream.of.drops-m.sg  
 Vanessa is washing in a stream of drops.

TABLE 2. Tense marking patterns in Mali

|         | Type A 'walk' |      | Type B 'run' |      | Type C 'see' |     | Type D 'try' |    |
|---------|---------------|------|--------------|------|--------------|-----|--------------|----|
| PRESENT | ngua          | tet  | ngu          | bang | ngu          | tlu | ngu          | su |
| FUTURE  | ngua          | thet | ngu          | vang | ngu          | lu  | ngu          | su |
| PAST    | ngua          | met  | ngua         | vang | ngua         | lu  | ngua         | su |

<sup>1</sup> Also note the following glosses that are specific to this chapter: I = class one (concordial pronoun), II = class two (concordial pronoun), III = class three (concordial pronoun), PURP<sub>1</sub> = purposive type 1 (basic purpose), PURP<sub>2</sub> = purposive type 2 (intentional purpose), PURP<sub>3</sub> = purposive type 3 (controlled purpose), REL<sub>1</sub> = relator type 1, REL<sub>2</sub> = relator type 2, REL<sub>3</sub> = relator type 3 (this differs from the standard abbreviations for this volume, which use REL for Relative), and SPEC = specifier article.

## A V O

- (2) [Kia thor-ka] [da kia vëng.bët-ka]  
 3f.sg.I wash.PAST-3m.sg.III and 3f.sg.I wrap.NPRES-3m.sg.III  
 She washed him and wrapped him up.

V S<sub>o</sub>

- (3) Da chën'gën.pët-ngo  
 and be.shivering.NPRES-1sg.III  
 And I was shivering.

Note that for A/S<sub>a</sub> arguments, a concordial pronoun must be present even when there is also a full NP representing the A/S<sub>a</sub> argument. This is shown in (1). This is not necessary for O/S<sub>o</sub> arguments. Clauses containing only a concordial pronoun representing O/S<sub>o</sub> arguments are shown in (2) and (3) while a clause containing an S<sub>o</sub> argument represented only by a full NP is shown in (4).

- (4) Da chule kama reng-ki mēk...  
 and stay.NPRES ART water-f.sg down  
 And then the water stayed down [there]...

#### 4. Lack of structural difference between main and non-main clauses

The only necessary element in a main clause is the head of the predicate and its concordial pronoun(s). There are no constraints on the coding of tense, aspect, or modality in linked clauses in Mali and concordial pronouns are required for every verb where they could occur. This is the basis for claiming there is no clause-internal structural means of distinguishing between a main clause and a non-main clause in the language. Example (5) shows a complex clause with a fully tensed verb in the subordinate clause (indicated by square brackets).

- (5) Sa ta-ithik sa ngeni lu ia  
 then EMPH-NOW then 2pl.II see.NPRES REL<sub>1</sub>  
 [vaim-ka da ka tēs kama a=snok]  
 SPEC.dog-M.SG and 3m.sg.I eat ART SPEC=excreta  
 So now you see that the dog eats excreta.

Example (6) shows that modifier clauses within the NP may also be structurally identical to main clauses. Relators introduce subordinate clauses and modifiers within an NP; modifiers may be adjectives or nouns or clauses.

- (6) Sa     uthi   skruim<sup>2</sup>   aut=a             lat     ama   [mundu  
       then 1pl.II continue 1pl.POSS=SPEC garden REL<sub>3</sub> earlier  
       ut     vat]  
       1pl.I plant.NPRES  
       So we continued making gardens that we planted before.

Although linked clauses are formally identical to main clauses, their interpretation is semantically dependent on the surrounding context; there are functional differences between clauses. Mood is a significant parameter in determining the semantic relations between clauses. The temporal clause in line (b) of (7) gains a quasi-conditional reading because of the irrealis clause in line (a).

- (7) (a) Auk [asik peia a=mor ngēt]<sub>1</sub>  
       well IRR when SPEC=big 3n.III  
       Well, when they're big,  
       (b) [sa veia ti tēk seng mēt=ngēt]<sub>2</sub>  
       then when 3h.pl.II work around at=3n.III  
       then when people work around them,  
       (c) [da sa kēvitha athēvama viam paivang  
       and then H.PL.FOC 3h.pl.POSS nuts EMPH.CN.DIST.DEM  
       then they claim those particular nuts  
       (d) ama asik ta tēs ngēt]<sub>3</sub>  
       REL<sub>3</sub> IRR 3h.pl.I eat 3n.III  
       to eat them.

These characteristics of Mali have significant typological implications in terms of clause linking as they indicate that many of the more syntactically and morphologically complex strategies of clause linking represented in this volume (such as the use of medial clauses, case-marked clauses, or special constituent order) are not available.

## 5. Clause linking in Mali

In this section I provide an overview of clause linking strategies in Mali before going into further detail below. Note that in the following discussion there are examples of orthographic sentences being linked as well as orthographic clauses since both occur in my data. A summary of the findings is provided in Table 3.

<sup>2</sup> Note that *skruim* is a Tok Pisin borrowing.

TABLE 3. Mali clause linking strategies according to semantic type

|          | Linking                                    | Marker                               | Order of clauses                 |
|----------|--|--------------------------------------|----------------------------------|
| I (§6)   | <u>Temporal</u>                            |                                      |                                  |
|          | Temporal succession (Is)                   | <i>da</i> 'and'                      | S <i>da</i> F                    |
|          |  | <i>sa</i> 'then, so'                 | S <i>sa</i> F                    |
|          | Relative time (Ir)                         | <i>pema</i> 'as'                     | <i>pema</i> S <i>da</i> F        |
|          |  | <i>peia</i> 'when'                   | <i>peia</i> S <i>da</i> F        |
|          |  |                                      | F <i>peia</i> S                  |
|          | Conditional (Ic)                           | <i>asika</i> IRR                     | <i>asika</i> S MARKER F          |
| II (§7)  | <u>Consequence</u>                         |                                      |                                  |
|          | Cause (IIc)                                | <i>i</i> / <i>mēndu</i> 'because'    | F <i>i</i> / <i>mēndu</i> (ma) S |
|          | Result (IIr)                               | <i>dai</i> 'thus/then/so'            | S <i>dai</i> F                   |
|          | Purpose (IIp)                              | <i>va</i> 'in order to'              | S <i>va</i> F                    |
|          | Intentional Purpose (IIp)                  | <i>iva</i> 'intending to'            | S <i>iva</i> F                   |
|          | Controlled Purpose (IIp)                   | <i>diva</i> 'so that'                | S <i>diva</i> F                  |
| III (§8) | <u>Possible consequence</u>                |                                      |                                  |
|          |  | <i>marik</i> 'really'                | F <i>marik</i> S                 |
| IV (§9)  | <u>Addition</u>                            |                                      |                                  |
|          | Unordered and Same-event addition (IVu, s) | <i>da</i> 'and'                      |                                  |
|          | Elaboration (IVe)                          | <i>ia</i> 'that [is]'                | F <i>ia</i> S                    |
|          | Contrast (IVc)                             | <i>dak</i> 'but'                     | S <i>dak</i> F                   |
| V (§10)  | <u>Alternation</u>                         |                                      |                                  |
|          | Disjunction (Vd)                           | <i>ura</i> 'or'                      |                                  |
|          | Counterpart ( $\approx$ Vr / Vs)           | <i>da(k)</i> <i>kinai</i> 'actually' | S <i>da(k)</i> <i>kinai</i> F    |
| VI (§11) | <u>Manner</u>                              |                                      |                                  |
|          | Real manner (VIr)                          | <i>klan</i>                          | F <i>klan</i> S                  |
|          | Hypothetical manner (VIh)                  | <i>gisnia</i>                        |                                  |

The sentence-initial position of many Supporting clauses in Mali is significant as this is the position for topics (i.e., significant background information) in the language. In (8), the topic is *kama vuspemgi* 'the eruption'.

- (8) (a) Kama vuspem-ki [da kia don kama ivēt-ki]  
 ART eruption-f.sg and 3f.sg.I throw ART earth-f.sg  
 (b) [da kama dul ama mor]  
 and ART stones REL<sub>3</sub> big  
 The eruption, it threw the earth and the big stones

As shown in (8), the unmarked coordinator *da* has the additional function of optionally marking a clause boundary if there is a constituent in topic position. Example (9) shows this is an optional strategy. In (9) the boundary was clearly indicated prosodically by the speaker and *da* was not used.

- (9) (a) [Katiket-ka        vak                    **ma**    ta        tes=ka  
          catechist-m.sg   m.sg.DIST.DEM   **REL**<sub>2</sub>   3h.pl.I   call=3m.sg.III  
          Nguingimga],  
          Nguingimga
- (b) [in       nēp.na=aut=a                    methamon] ...  
       3.du.I   translate=1pl.POSS=SPEC   language  
       That catechist who they call Nguingimga, the two of them translated  
       our language ...

If another clause-initial constituent is present, *da* need not be used, as in (10a) where the boundary is indicated prosodically and with the irrealis marker *asik*. *Da* may co-occur with other clause-initial elements in this function as shown in (10b).

- (10) (a) Mēndu    ma        aut=a                    mor-ta,        [asik    kama  
          earlier   **REL**<sub>2</sub>   1pl.POSS=SPEC   ancestor-h.pl   **IRR**   ART  
          Butam-gēna   ta        tet]  
          Butam-h.pl   3h.pl.I   go.PRES
- (b) [**da**=asik   ti                    pēlēng    sēvēt    authama  
       **and**=**IRR**   3h.pl.II   kill.PRES   about   1pl.POSS  
       aut=iaik-kēna]  
       1pl.POSS=grandfather-h.pl  
       Long ago our ancestors, the Butam would go and they'd kill our  
       grandfathers.

The unmarked coordinator *da* has additional functions as evidenced by the fact that in narrative and conversation it is not unusual for the speaker to start a new sentence with *da*. This use of the coordinator is less common in written Mali, suggesting that it is stylistically rather than grammatically determined. I think that one of its functions is to express empathy with the previous speaker. Examples (11) and (12) are sentences uttered in sequence during a narrative. These examples show the unmarked coordinator *da* in three different functions. In (11) the coordinator marks the clause boundary, following a topical NP. The new sentence in (12) starts with *da*. This is clearly a new

sentence as the final form in (11) is the tag question *ura* ‘isn’t it?’ and there is a change in speaker. Within (12) there are two clauses coordinated by *da*.<sup>3</sup>

- (11) (a) Angē=mēng [da kosa ka ndang] [ma ka ndang  
3n.POSS=tree and just 3m.sg.I burn REL<sub>2</sub> 3m.sg.I burn.PRES  
(b) sa=mēk sa=mēt avē=chuar mo] ura?  
to=down to=in 3m.sg.POSS=roots all or  
The tree, it just burnt, um, it burnt down to its roots, didn’t it?
- (12) [Da ka ndang] [da kosa vuthem=ka mēk]  
and 3m.sg.I burn.PRES and just fall.NPRES=3m.sg.III down  
And it burnt and it just fell down ...

## 6. Temporal (I)

The three semantic types of clause linking that express temporal relations are presented as follows: (a) temporal succession, (b) relative time, and (c) conditionals.

### (a) Temporal succession (Is)

There are two means of linking clauses related by temporal succession in Mali: the unmarked coordinator *da* and the sequential coordinator *sa*. An example of the preposition *sa*, glossed as ‘to’, appears in (17); an example of the comitative *sa* appears in (16).

The unmarked coordinator *da* (with variants *dē*, *dī*, *du*, *do* as determined by vowel harmony) often links events that happen in sequence. An example is given in (13).

- (13) (a) [Ta muēn.pēt=ngam]<sub>SC</sub>  
3h.pl.I arrive.at.PAST=RCD.SG  
(b) [da ta chēthēp kama a=ru-ta]  
and 3h.pl.I capture.NPRES ART SPEC=person-h.pl  
They arrived at it [the village] and they captured the people.

The form *sa* ‘then’ has basically the same distributional properties as *da* but overtly encodes a temporal sequence of events, indicating that the clause being introduced happened after the previous clause. The sequential coordinator is homophonous with the allative/comitative preposition and may well be related to this form. It is also homophonous with the resultative marker,

<sup>3</sup> The third person possessive pronoun here is a dummy pronoun; the speaker is treating ‘trees’ as an inalienably possessed noun. This strategy is sometimes used to distinguish ‘tree’ from ‘wood’ *amēng*; both ‘tree’ and ‘wood’ are possible uses of this polysemous form.

which also functions as an imperative marker, and the durative adverb (in clause-final position). An example of the sequential coordinator is given in line (c) of (14). In this example the events happen consecutively.

- (14) (a) [Kusek ma ngavem ama unbem ini buinēm  
only REL<sub>2</sub> f.du REL<sub>3</sub> two.f.du 3du.II return.PRES  
(b) sa=ve sēmēt kama kumēngas]<sub>SC</sub>  
to=there into ART prison.camp  
(c) [sa in ve ini tēk]  
then 3du.I IMPERV 3du.II work.PRES  
Only the two women returned to the prison camp, then they were working...

In some cases Mali–English bilinguals translate the sequential coordinator with the word ‘so’ indicating that there may be some relation of action and result between the two clauses. As example (15) shows, the proposition in the second clause is a result of the action in the first clause.

- (15) (a) [Kule sa plaik.sē=ka mēthik]<sub>SC</sub>  
later then emerge.PRES=3m.sg.III aside  
(b) [sa chia ngim sēvēt=ka]  
then 3f.sg.I see.PRES about=3m.sg.III  
Then he came out on the other side so she saw him.

Whereas it is difficult to justify the distinction of a Supporting and Focal clause for clauses linked with the unmarked coordinator *da*, this distinction appears more appropriate with the clauses linked by *sa*, particularly in cases where a cause and effect relationship is apparent. In such examples it is possible to invoke the reasoning that identifies clauses expressing causation as Supporting clauses and clauses expressing outcomes as Focal clauses, for example in relation to (15).

(b) Relative time (Ir)

Mali has two forms that are used to encode Relative time: *peia* ‘when’, and *pema* ‘as’. Both these forms can (at least speculatively) be analyzed as containing the anaphoric demonstrative *pe* ‘there’ and the relators *ia* and *ma* respectively. These two clause linkers occur at the start of the Supporting clause. The Focal clause is often but not always—see (16)—introduced by *da*.

The clause linker *pema* ‘as’ occurs only a few times in the corpus. It introduces an event that encompasses the time referred to in the main clause. See example (16). In this example, the Supporting clause comes first.

- (16) (a) [Pema in tet nē-ka is-ka sa=ma  
as 2du.I go.PRES on-ART road-m.sg COMIT=ART  
sek-ka]<sub>SC</sub>  
hero-m.sg
- (b) ka thēchēm sēvēt=nas ia ti tal-ka  
3m.sg.I realize.NPRES about=REFL REL<sub>1</sub> 3h.pl.II carry-3m.sg.III  
As the two were walking along the road with the hero, he realized  
they were carrying him.

The clause marker *peia* ‘when’ introduces clauses encoding a range of temporal relations. Additional semantic information is provided by an adverb. In these examples the adverbs are *naruer* ‘firstly’ (17); *sndamer* ‘correctly, directly’, meaning ‘while’ (18); and *dēng* ‘finally, until’ (19).

- (17) (a) [Naruer peia kia thet sa=va lat]<sub>SC</sub>  
firstly when 3f.sg.I go.FUT to=LOC garden
- (b) da kia=thēt kama urat-ki da=chama a=sen-ki ...  
and 3f.sg.I=get.FUT ART basket-f.sg and=ART SPEC=knife-f.sg  
Firstly when she goes to the garden, she gets the basket and the knife ...
- (18) (a) [Sndamer peia sospen-ki kia pe mēt kama mundēm]<sub>SC</sub>  
directly when saucepan-f.sg 3f.sg.I there in ART fire
- (b) da sa ki tiktēm.vēt=kama auravu  
and then 3f.sg.II break=ART native.spinach  
While the pot sits in the fire she breaks the native spinach.
- (19) (a) da kok kē tneng klan [dēng peia  
and just 3m.sg.II dodge only until when
- (b) ka thanger.pēt kē langun-ka av=ves]<sub>SC</sub>  
3m.sg.I break.off.NPRES ART decorative.leaf-M.sg 3m.sg.POSS=head  
He just dodged until he broke the top off the decorative leaf.

The order of clauses in (19) is iconic. Clauses expressing events that occur *after* other events are not usually explicitly marked as having a relative temporal relation (see (20)). However, it is possible to express a temporal relation if there is a discourse motivation to do so (see (21)). In either case the fixed expression *sa chule sa* [then later then] is often used.<sup>4</sup>

- (20) (a) Aichua, [da sa ngia muēn]  
aha and then 2sg.I arrive.PAST

<sup>4</sup> *Chule* is the non-present tense form of the stative verb ‘stay’ but is not being used as a verb in this context—there is no pronominal agreement. This expression also occurs with the unmarked coordinator *da* and other clause-initial forms in place of one or both uses of *sa*.



- (b) [sa chule sa Pater Alphonse ka muēn]?  
 then later then Father Alphonse 3m.sg.I arrive.PAST  
 Aha, so you were born and then afterwards Father Alphonse came?
- (21) (a) [Sa chule sa peia ma gi nanēk ki  
 then later then when um 2sg.POSS mother 3f.sg.II  
 thal nge]<sub>SC</sub>  
 carry.NPRES 2sg.III
- (b) [da asik ngia lu ma Pater Mayerhoper [ma  
 and IRR 2sg.I see.NPRES ART Father Mayerhoper REL<sub>2</sub>  
 ka muēn  
 3m.sg.I arrive.PAST
- (c) ura ngēmbēs]]?  
 or NEG  
 Then after your mother gave birth to you, did you see Father  
 Mayerhoffer, had he arrived or not?

Example (21) seems to involve some sort of embedding of the Supporting clause within the Focal clause since *sa chule sa* ‘afterwards’ refers not to the birth but to the events that follow it. This is not a widely attested structure in Mali and may be calqued from the very similar English structure represented in the translation.

(c) Conditional (Ic)

Conditional clauses are introduced by the irrealis marker *asika* with a second clause-initial marker introducing the Focal clause. The form *asika* is related to *asik*, the irrealis marker for non-conditional clauses. In (22) the conditional *asika* is used in the “if” clause and the contrastive coordinator *dai* which functions as a consequence marker ‘thus’ introduces the “then” clause. The fact that (22) refers to hypothetical events is also indicated by the future tense verb in the second clause. The Focal clause comes second.

- (22) (a) [Asika aslek.pēt=ki nē=ka ru-ka  
 if be.willing.NI=3f.sg.III PREP=ART person-m.sg  
 avak=pik]<sub>SC</sub>  
 m.sg.DIST.DEM=EMPH
- (b) dai ti vondēm=ki sagēlēm=ka  
 then 3h.pl.II give.NPRES=3f.sg.III by=3m.sg.III
- (c) da kule ki ki nē=ka  
 and stay 3f.sg.III 3f.sg.III and=3m.sg.III

If she's willing to marry that particular man then they will give her to him and she stays with him.

The non-conditional irrealis marker *asik* may also be used in the 'consequence' clause. Note that in example (23) the 'coordinator' *da* is also present in each clause.

- (23) (a) [Da=**asika** athēva anga lēvop-ki kia pe]<sub>SC</sub>  
           **and=if** 3h.pl.POSS NSPEC female-f.sg 3f.sg.I there  
       (b) da sik ti vondēm=ki sa=ve  
           and IRR 3h.pl.II give.NPRES=3f.sg.III to=there  
           And if they had a woman, they will give her to there...

Finally, note that coordinators can be also used to introduce focal "then" clauses. In (24) there are two hypothetical conditional propositions. The proposition 'if you can' is in the first clause in the future tense. The alternative 'but if not' is given in a coordinated clause rather than a new conditional clause. The contents of the predicate are omitted here. In (24a), the 'then' clause is introduced by the unmarked coordinator *da*. The second 'then' clause is introduced by the contrastive coordinator *dai*. The contrastive coordinator is used to indicate that the second 'then' clause is an alternative to the first.

- (24) (a) [Da=**asika** mamēr pēt=nge]<sub>SC</sub> [da ngi=thēn vuit]  
           **and=if** possible at=2sg.III and 2sg.II=arrive.FUT on.top  
       (b) [dak angēmbēs]<sub>SC</sub> [dai ngi vuinēm]  
           but NEG then 2sg.II return.NPRES  
           And if you can, [then] go higher, but if not, [then] return.

## 7. Consequence (II)

In Mali it is possible to identify clause linking for the following semantic relations identified as types of consequence in the introduction to this volume: (a) Cause, (b) Result, (c) Purpose, (d) Purpose: uncontrolled, and (e) Purpose: controlled. The latter three relations are encoded by different morphemes in Mali but all relate to the same category in Chapter 1. The differences between them are discussed below.

- (a) Cause (IIc) *i* / *mēndu* (*ma*) 'because'

Reason clauses are formed using the clause marker *i*. In these examples, the clauses encoding the reason, that is, the Supporting clauses, always follow the Focal clauses. Example (25) shows a reason clause introduced by *i*.

- (25) (a) Auk sa ka bubang sa sek-ka sa ka  
 well then ART next.day then hero-m.sg PERFV 3m.sg.I  
 rem klan  
 know.NPRES just
- (b) ia bubang sa ma rndam kia then  
 REL<sub>1</sub> next.day then ART witch 3f.sg.I arrive.FUT
- (c) [i askok ma thalias av=a lugut-ki  
 because still ART wizard 3m.sg.POSS=SPEC spouse-f.sg]
- (d) achik kia pe]<sub>SC</sub>  
 f.sg.CONTR.DEM 3f.sg.I there  
 Well, then the next day the hero already knew that the witch would  
 come because one of the wizard's wives was still there.

The reason clause marker may also be used in conjunction with the adverb *mēndu* 'before'. These Supporting clauses identify prior causes for the events described in the Focal clause. In this case the order is *i* + *mēndu*. An example is provided in (26).

- (26) (a) Ia ithik da mamēr ia sa chule nge  
 yes now and possible REL<sub>1</sub> then stay.NPRES 2sg.III  
 ngi=na=ut  
 2sg.II=COM=1pl.II
- (b) [i mēndu masa ut mat.malengeik.na=nge  
 because earlier really 1h.pl.I believe.PAST=2sg.III]
- (c) [ia kusek ma nge ngia met inamēk]  
 REL<sub>1</sub> only REL<sub>2</sub> 2sg.II 2sg.I go.PAST from.down
- (d) [ngia vang glan avik]]<sub>SC</sub>  
 2sg.I run.NPRES like DIST.DEM  
 Yes, now it's all right for you to stay with us because we really  
 believe that only you came up from down there, you ran away like  
 that.

The adverb *mēndu* refers to past time. Example (27) shows *mēndu* encoding the time of an event. Note that in this function *mēndu* may occur at the end of the clause.

- (27) (a) Ka thap mēni kama viula-ka nē=kama  
 3m.sg.I cut.NPRES in ART mango-M.SG INST=ART  
 vēthēp=ki mēndu  
 axe=f.sg earlier

- (b) da sa ithik sa vur a=ithir  
 and then now PERFV be.healed.PAST SPEC=new.growth  
 He made a cut on a mango tree with an axe before but now the cut  
 is healed again with new skin.

Causation may also be shown by the adverb *mēndu* introducing a clause providing additional information about earlier events contributing to the relevant state of affairs. Example (28) shows *mēndu* with the relator *ma* following.

- (28) (a) Amusnēng ngē mēn vēm-ka sēvēt kama  
 idea 3n.I arrive.PAST at-3m.sg about ART  
 Siapan-ka  
 Japanese-m.sg  
 (b) ia sok ka vėlēng-ka  
 REL<sub>1</sub> really 3sg.I kill.NPRES-3m.sg.III  
 (c) [*mēndu* *ma* ka tlu kama Siapan-ka plēng  
 earlier REL<sub>2</sub> 3m.sg.I see ART Japanese-m.sg kill.PRES  
 kama ru-ta  
 ART person-h.pl  
 (d) klan]<sub>SC</sub>  
 just  
 He decided about the Japanese man that he really would kill him  
 because he had seen that Japanese man kill the people.

(b) Result (IIc) *dai* ‘thus/then/so’

Clauses encoding Result or Consequence are encoded by *dai*, though this form more usually introduces (obviously semantically related) ‘then’ clauses in conditional constructions (see §6c). The same form also introduces clauses that provide elaboration (see §9b). These two semantic relationships have been quite difficult for me to confidently distinguish within the corpus.

The second sentence in (29), introduced by *dai*, provides commentary on the first. The perspective offered by the narrator is contrasted in these two sentences. Focal clause is second.

- (29) (a) [Ta tu.thē athēv=a vēt ura  
 3h.pl.I decorate.PRES 3h.pl.POSS=SPEC villages or  
 athēv=a lat.]<sub>SC</sub>  
 3h.pl.POSS=SPEC gardens  
 (b) *Dai* kēvithi kuar ia kama mangbēchēng  
 thus h.pl.FOC say REL<sub>1</sub> ART tangets  
 (c) da=kinak kēvicha ka muēn pivi  
 and=just m.sg.FOC 3m.sg.I arrive.PAST up.there

vi=avik

EMPH=DIST.DEM

They decorate their village or their gardens. So, as they say, the tangets, just that one, it arrived in like that.

Note that *dai* can also occur after the predicate in an adverbial function as in example (30). In this function it seems to have some sort of contrastive meaning.

- (30) (a) Sa ka=ve sa “I sek-ka, ngu  
 then 3m.sg.I=IMPERV then oh hero-M.SG 1sg.II  
 vëlēng ma nēma ta=ithik  
 kill.NPRES ART who EMPH=now  
 (b) ngua ve va vandi ngu=na aung uni  
 1sg.I IMPERV PURP<sub>1</sub> DESID 1sg.II=and someone 1du.II  
 gamar **dai**”  
 fight.NZ CONTR  
 So he’s, “Oh! hero, who will I kill this time? I want someone to fight with.” (Lit., ... Me and someone we will fight.)

(c) Purpose (IIp) *va* ‘in order to’

The morphologically simple form *va* is the basic purposive. This form is clearly related to the benefactive and locative preposition *pa* (also pronounced *va*<sup>5</sup>). Example (31) shows a purposive introduced by *va* beginning in line (c). Following the criteria set out in Chapter 1, the Focal clause is the second clause, showing the intended purpose of the action encoded in the Supporting clause.

- (31) (a) [Da ta thēk.na=athēvama chases-ta  
 and 3h.pl.I make.NPRES =3h.pl.POSS spy-h.pl  
 (b) ma ta tes ta ia kama Kembe-kēna]<sub>SC</sub>  
 REL<sub>2</sub> 3h.pl.I call.PRES 3h.pl.I REL<sub>1</sub> ART PN-h.pl  
 (c) **va** ta thet ti ngim  
 PURP<sub>1</sub> 3h.pl.I go.FUT 3h.pl.II look.for.NPRES  
 (d) nani kama a=ru-ta vêt kama a=ur-ki  
 for ART SPEC=person-h.pl at ART SPEC=bush-f.sg  
 And they [the soldiers] sent their spies who they called the Kembes to go out and look for people in the bush. (Lit., ... in order that they would go out and look for people in the bush.)

<sup>5</sup> This alternation between voiceless stops and fricatives is pervasive in Mali but is not apparent in the examples because the representation used in this chapter is morphophonemic.

In example (31), there happens to be a different subject in the second clause from that in the first clause, but there are also examples in my corpus in which the same subject occurs in each clause.

(d) Intentional Purpose (IIp) *iva* ‘intending to’

Intentional purposive clauses are introduced by *iva*. This form is probably comprised of the reason clause marker *i* and the purposive *va*. Intentional purposive clauses are Focal clauses expressing the desires, intentions, and plans of the protagonists in the Supporting clauses they modify. There is not necessarily an expectation that the goals or expectations of the protagonists will be fulfilled. An example is provided in (32).

- (32) (a) [Paim-ka da ta mu ka]<sub>SC</sub>  
           dog-m.sg and 3h.pl.I put.PAST 3m.sg.III  
       (b) *iva* sik kē svo tēm=ka mundēm  
           PURP<sub>2</sub> IRR 3m.sg.II steal.NI PREP=ART fire  
           They instructed the dog to steal the fire. (Lit., Dog, they put (on) it  
           intending that it would steal the fire.)

(e) Controlled purpose (IIr) *diva* ‘so that’

Controlled purposive clauses are introduced by *diva*. This form appears to be built on the intentional purposive, additionally making use of the coordinator *da*. Controlled purposive clauses are Focal clauses that encode the expectation, or very often the knowledge, that the desires and plans of the protagonists will be or have been fulfilled.

Thus, the contrast between intentional purposive clauses and controlled purposive clauses is to do with causation. This contrast may to some extent compensate for the lack of a causative construction in the language. In (33), the controlled purposive is used. The contrast between (33) and (31), in which the simple purposive is used, relates to the control the soldiers have over the events they are seeking to organize. They are able to force people to carry things for them in (33) but they cannot force people to be found in (31).

- (33) (a) [Ta thēt kama chēluing-ta]<sub>SC</sub>  
           3h.pl.I get.FUT ART black-h.pl  
       (b) *diva* ta tat.nēthēm=ta sa=athēv=a  
           PURP<sub>3</sub> 3h.pl.I help.PRES=3h.pl.III with=3h.pl.POSS=SPEC  
           guang-ithong  
           thing-dim.pl  
           They [the soldiers] got the black people in order to help them with  
           their things.

### 8. Possible consequence (III)

The following sentences are the closest to apprehensives in my corpus. It is interesting that both sentences contain the word *marik* ‘really’ between the two clauses but that the prosodic association varies. In both examples the clause containing the threat, the Supporting clause, is in second position. In (34) *marik* introduces the second, Supporting clause whereas in (35) the adverb is prosodically associated with the Focal clause. Perhaps this adverb has, or is acquiring, an apprehensive function. More examples would be required to settle this question. The word *marik* occurs repeatedly in non-apprehensive clauses in the text surrounding (35).

- (34) (a) Ngi chethik.sēthēm gi vlēm-ini mamēr  
 2sg.I fasten.NPRES 2sg.POSS pig-DIM.SG properly  
 (b) [*marik* ngini ngē=na vang]<sub>SC</sub>.  
 really DIM.sg 3n.I=IRR run.away.NPRES  
 Fasten your piglet properly or it’ll run away.
- (35) (a) Ngia thamon sēthēm ngo *marik* [asik tiathik kēlan]<sub>SC</sub>,  
 2sg.I tell.FUT to 1sg.III really IRR now only  
 (b) [asik ngu chut.mē-nge nē=gu=a chep-ki  
 IRR 1sg.II spear.NPRES-you INST=1sg.POSS=SPEC spear-f.sg  
 tiathik]<sub>SC</sub>.  
 EMPH.this  
 (c) [Asik ngi ngip]<sub>SC</sub>.  
 IRR 2sg.II die.PRES  
 Tell me truly, otherwise this time it’s like this, I’ll shoot you with  
 this spear of mine. And you’ll die.

### 9. Addition (IV)

Unordered and same-event addition are discussed together in (a), elaboration is discussed in (b), and contrast is discussed in (c).

(a) Unordered and same event addition (IVu, s)

The unmarked coordinator *da* ‘and’ may be used to link clauses without implying an order to events. An example is given in (36).

- (36) (a) [A=lēvop ta=ve ti nging.dē=kama chumes-ka]  
 SPEC=females 3h.pl.I=IMPERV 3h.pl.II spy.on=ART male-m.sg

- (b) [da a=chumes-ta ti nging.dē=kama lēvop]  
 and SPEC=male-h.pl 3h.pl.II spy.on=ART female  
 The women spied on the boy and the men spied on the girl.

(b) Elaboration (IVe)

The relators *ia* (see (5) above) and *ma* (see (9) above) are used to introduce Elaboration clauses. In (37) the clause introduced by *ia* elaborates by describing exactly what the speaker was fearful of. It occurs in the position we might expect an object complement in a complex transitive clause in English but does not have the function of describing the object; it provides an alternative O, elaborating on the object of fear.

- (37) (a) Ngua lu ka da ngua len ka ia  
 1sg.I see.NPRES 3m.sg.III and 1sg.I fear.NPRES 3m.sg.III REL<sub>1</sub>  
 (b) [ka na chunaik ngo kēlan]<sub>SC</sub>  
 3m.sg.I IRR swallow.NPRES 1sg.III likewise  
 I saw it and I feared it that it might swallow me the same way.

An elaborating clause introduced by *ma* was provided in (11). In (38) the relationship between the clauses is more complex. Although I would argue that there is indeed elaboration going on, in this case the second and third clauses are introduced by the unmarked coordinator *da* which is here appropriate for other relevant semantic reasons.

- (38) (a) Da ngaiom in dal ain oem-iom  
 and m.du 3.du.I carry 3.du.POSS child-m.du  
 (b) [[da athē ma kiom, in dal ainem  
 and another REL<sub>2</sub> m.du.FOC 3.du.I carry 3.du.POSS  
 ma a=chumes]  
 REL<sub>2</sub> SPEC=male  
 (c) [dak kiom in=dal ainem ma lēvop]]<sub>SC</sub>  
 but m.du.FOC 3.du.I=carry 3.du.POSS REL<sub>2</sub> female  
 The two couples had two babies, one couple had a son and the other couple had a daughter.

Apposition and coordination are also used as a means of allowing clauses that provide elaboration. See for example (26d).

(c) Contrast (IVc)

Clauses involving a contrast are linked by *dak*. In these examples, the Focal clause is in second position following the linker. This form is used to contrast different activities and/or different participants. Both are involved in (39).



- (39) (a) ... da ngu chuar.na=ta ia ut  
 and 1sg.II tell.PAST=3h.pl.III REL<sub>1</sub> 1pl.I  
 thet vono  
 walk.FUT upwards
- (b) [dak ti kuar ia ut thet mano]<sub>SC</sub>  
 but 3h.pl.II say REL<sub>1</sub> 1pl.I walk.FUT downwards  
 ...and I said to them that we should go up but instead they said  
 we'd go down.

Although this coordinator is frequently translated by the English word 'but' (for example in (39)), the semantics are not really a very good match. Consider (40) in which the expectations set up in the first sentence are not met in the second and the unmarked coordinator *da* is used in line (c). This example shows that the contrast marker *dak* is used to contrast protagonists (line (b)) rather than expectations. This is different from the use of the English contrast marker 'but' in the free translation.

- (40) (a) Da kama amanangiēm-ki kia chuar.nē=kama susur-ki  
 and ART sighted.one-f.sg 3f.sg.I tell.NPRES=ART blind.one-f.sg
- (b) ia kēvichi ki vën [dak kēvichi da chule  
 REL<sub>1</sub> f.sg.FOC 3f.sg.II climb.NPRES but f.sg.FOC and stay.NPRES
- (c) ki mēk.]<sub>SC</sub> Da ma susur-ki arus=ki.  
 3f.sg.III down and ART blind.one-f.sg refuse.NI=3f.sg.III  
 Then the one who could see said to the blind woman that she  
 should climb and she would stay down on the ground. But the  
 blind woman refused.

## 10. Alternation (V)

Mali encodes two contrasts that involve alternation. The first is Disjunction. The second I have labeled Counterpart as it does not necessarily involve the semantics associated with either Rejection or Suggestion but crucially is associated with turn taking and other types of alternating opposition.

### (a) Disjunction (Vd)

The form *ura* can be used to link clauses or NPs. It is the only linker that has both these functions. It also functions as the marker of a tag question; see (11). Example (41) shows the coordination of two alternative versions of events. Each is expressed as a clause.

- (41) (a) [Dak peia gamar ngē muën]  
 but when war 3n.I arrive.PAST

- (b) [da=asik kama gamar ngē munggun=ngen ma vono]  
and=IRR ART war 3n.I chase.PAST=2pl.III ADV higher
- (c) [ura kok askok kule ngen pe ngenne=ma Pater?]  
or just still stay 2pl.III there 2pl.and=ART Father  
And when the war arrived, did it chase you all up higher, or did you  
all just stay there with Father?

The corpus contains examples of each of the types of disjunction discussed in Chapter 1:

- (42) (a) open disjunction (X or Y (or Z)):  
*Good night or good morning to you.*
- (b) closed disjunction (X or Y—nothing else):  
*Oh, Jennifer, are you happy or not?*
- (c) inclusive closed disjunction (either X or Y—not both):  
*If you want to kill me, then you will kill me on the valley floor or at the river, on the bank of the river.*
- (d) exclusive closed disjunction (either X or Y—or both):  
*He killed fish or birds from the bush.*

Example (43) shows the disjunctive coordination of NPs.

- (43) [Kapa]                **ura** [palang] ti                tal                ngēt  
corrugated.iron or planks 3h.pl.II carry 3n.III  
Corrugated iron or planks, they carried them.

(b) Counterpart (Rejection and Suggestion)

The adverb *kinai* is associated with a range of contexts in which one alternative is considered in relation to another. Example (44) shows a series of clauses all containing the adverb *kinai* ‘actually’ in initial position to signal that the activity being described is counter to the expectations of the speaker. In the context for this example, the Hero fights to defend himself against someone the Fool has provoked. The narrator speaks as the Fool who is distracting the Hero by teasing him about his fighting technique (‘so that’s how they fight, is it?’). The adverb is used by the (narrator as) Fool to signal the existence of alternate expectations about good fighting.

- (44) (a) [Ma **kinai** paikdēm ta]                [**kinai** ti  
REL<sub>2</sub> actually jump.PRES 3h.pl.III actually 3h.pl.II  
vanggal],  
suck.in.belly.NPRES
- (b) [**kinai** ta thas]                [**kinai** nging.dēm=ta],  
actually 3h.pl.I lie.down.FUT actually duck.NI=3h.pl.III

- (c) aichua [ti neng klan avik]?  
 aha 3h.pl.II dodge.NPRES like DIST.DEM  
 They actually jump like that, they actually suck in their bellies, they  
 actually lie down, they actually duck, aha, they dodge like that?

In (45) the adverb *kinai* is used in conjunction with another linker to set up a semantic relation between clauses involving alternative possible events. The labels Rejection and Suggestion do not seem to be appropriate here as there is no implication that one alternative is favoured over another. Instead the contrast is between a possible event and an actual event. In these examples, the Focal clause is the linked clause. The event encoded in the Focal clause is relevant and true in the context while the event encoded in the Supporting clauses may have been true in other cases but is not relevant or does not hold in this case. An example containing the contrastive linker *dak* in addition to the adverb *kinai* is shown in (45).

- (45) (a) [Da ka ve kē=iras ia  
 and 3m.sg.I IMPERV 3m.sg.II=lie.NI REL<sub>1</sub>  
 krētkrēt.sē=ka vuk  
 make.noise.NI=3m.sg.III up  
 (b) da ka bang-ka av=am]<sub>SC</sub>  
 at ART house-m.sg 3m.sg.POSS=door  
 (c) **dak kinai** plaik.sē=ka mēt a=bang-ka  
**but instead** come.out.NPRES=3m.sg.III in SPEC=house-m.sg  
 (d) av=a vēm=ki achik  
 3m.sg.POSS=SPEC door=f.sg f.sg.CONTR.DEM  
 And so he pretended to make noise near the main door [but  
 actually] instead he came out from the other door.

The unmarked coordinator also occurs with *kinai* (*da kinai* or *dinai*) in a similar function. It is often used to indicate alternations in entities taking the role of the actor ‘Well, then *da kinai* (in turn) he puts his stone in his sling and he shoots.’

## 11. Manner (VI)

Mali overtly marks Supporting clauses indicating both (a) Real and (b) Hypothetical manner.

### (a) Real manner (VIr)

The adverb *klan* ‘like(wise)’ is used to introduce manner clauses in Mali. (The adverb *klan* is glossed as ‘just, only, for nothing’ in some contexts.) An adverbial demonstrative is used to refer the addressee back to some previous description in the discourse (46).

- (46) ...ngia vang klan avik  
 2sg.I run.NPRES like DIST.DEM  
 ... you ran away like that.

In examples such as (47) the Focal clause occurs as the verbless clause subject with the demonstrative or pronoun as the verbless clause complement.

- (47) VCS VCC  
 ...ki tneng klan ka  
 3f.sg.II dodge.PRES like 3m.sg.III  
 ... she dodges like him. (Lit., [Her] dodging [is] like him.)

This analysis also applies in examples such as (48) where the Supporting clause is overtly present; introduced by the relator *ia*.

- (48) (a) [A=musnēng ngē muēn vēt gu=auk]<sub>VCS</sub>  
 SPEC=idea 3n.I arrive.NPRES at 1sg.POSS=grandmother  
 (b) klan [da=ithik ia  
 like EMPH=PROX.DEM REL<sub>1</sub>  
 (c) “Ngo da vandi ngu vlēk ia ngu vang”]<sub>VCC, SC</sub>  
 1sg.III and DESID 1sg.II want.NPRES REL<sub>1</sub> 1sg.II run.NPRES  
 An idea came to my grandmother like this, “I want to try and run away.”

(b) Hypothetical manner (VIh)

Clauses describing hypothetical manner are introduced by the adverb *gisnia* ‘as if’. This seems to be a contraction of part of a larger expression used to introduce sensory experiences *ngia tu gia snēng ia* {2SG.I put.PRES 2SG.POSS idea REL<sub>1</sub>} ‘you(’d) think that’. An example is given in (49).

- (49) (a) [... da koki ka tet] [gisnia pe]  
 and just 3m.sg.I go.PRES as.if there  
 (b) [kule ka pe mēni aut gling-igēl]<sub>SC</sub>  
 stay.PRES 3m.sg.I there on 1h.pl.POSS place-exc.sg  
 ... he’d just gone (along) as if there [as if] he was staying at our place.

## 12. Markers with multiple functions

As the discussion in this chapter has shown, Mali does not make use of strategies such as the use of medial clauses, case-marked clauses, or special constituent order in representing clause linking. Instead the language relies on

TABLE 4. Clause linking markers with multiple functions

|          | Linking                                   | Marker                                  | Other functions   |
|----------|---|---|---|
| I (§6)   | <u>Temporal</u>                           |   |   |
|          | Temporal succession (Is)                  | <i>da</i> 'and'<br><i>sa</i> 'then, so' | ALL, COMIT, PERFV   |
|          | Relative time (Ir)                        | <i>pema</i> 'as'<br><i>peia</i> 'when'  |   |
|          | Conditional (Ic)                          | <i>asika</i> IRR                        |   |
| II (§7)  | <u>Consequence</u>                        |   |   |
|          | Cause (IIc)                               | <i>i</i> / <i>mēndu</i> 'because'       | <i>mēndu</i> 'long ago'   |
|          | Result (IIr)                              | <i>dai</i> 'thus/then/so'               | marks contrast clause<br>finally; elaboration                                     |
|          | Purpose (IIp)                             | <i>va</i> 'in order to'                 | <i>pa</i> ( <i>va</i> ) = LOC, BEN  |
|          | Intentional Purpose (IIp)                 | <i>iva</i> 'intending to'               | <i>ve va</i> = INCEP  |
|          | Controlled Purpose (IIp)                  | <i>diva</i> 'so that'                   |   |
| III (§8) | <u>Possible consequence</u>               |   |   |
|          |   | <i>marik</i> 'really'                   |   |
| IV (§9)  | <u>Addition</u>                           |   |   |
|          | Unordered and Same-event addition (IVu,s) | <i>da</i> 'and'                         | marks clause boundaries<br>where there is<br>topicalization                       |
|          | Elaboration (IVe)                         | <i>ia</i> 'that [is]'                   | relator   |
|          | Contrast (IVc)                            | <i>dak</i> 'but'                        |   |
| V (§10)  | <u>Alternation</u>                        |   |   |
|          | Disjunction (Vd)                          | <i>ura</i> 'or'                         | tag question  |
|          | Counterpart ( $\approx$ Vr / Vs)          | <i>da(k) kinai</i> 'actually'           |   |
| VI (§11) | <u>Manner</u>                             |   |   |
|          | Real manner (VIr)                         | <i>klan</i>                             | <i>asik klan</i> 'if'<br><i>klan minia</i> 'how'<br><i>klan ama</i> 'for example' |
|          | Hypothetical manner (VIh)                 | <i>gisnia</i>                           |   |

the use of specialized particles to indicate relations between clauses. Mali is similar to Fijian in this regard but has a richer, more elaborated set of linking devices and far less reliance on apposition than Dixon reports for Fijian in Chapter 9. In addition, adverbs also play a significant role in organizing the semantic relations between clauses. This use of adverbs is reminiscent of Korean, as discussed by Sohn in Chapter 12, but is far more elaborated in Korean than in Mali. Finally, in Mali, there is evidence that the locative/benefactive preposition is related to the basic purposive marker; the use of prepositions to encode purposive readings is also found in Toqabaqita as

explained by Lichtenberk in Chapter 10, but note that in the latter case, the allative, ablative, and prolicative markers are used and there is some overlap between reason and purpose marking that is not found in Mali. Similarly there is evidence that the sequential temporal linker is related to the allative/comitative marker. Table 4 lists the clause linking markers discussed in this chapter and lists other functions associated with each form.

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# Semantics and Grammar in Clause Linking

ALEXANDRA Y. AIKHENVALD

## 1. The many facets of clause linking

All the semantic relations between clauses—outlined in Chapter 1—can in some way be expressed in each of the languages discussed within this volume. This is akin to a lay assumption that anything can be said in any language. It is, however, the case that some relations are expressed more readily and more frequently than others. Temporal relations between clauses are a prime example. In contrast, semantic relations of possible consequence, manner, or addition may not have a way of expression of their own.

This lack of ‘isomorphic relationship’ between structures and semantic types (§4 of Chapter 4) leads to further questions. Among these are the status of some semantic types of clause linking as ‘core’ and others as ‘marginal’; the existence of any additional semantic subtypes; potential polysemous patterns in clause linking; and the ways in which categories of the Focal and the Supporting clause can help disambiguate these. This chapter aims at drawing together some of these issues which arise from discussion within the volume.

I start with a brief description of ‘core’ and ‘marginal’ types, and further semantic distinctions within them revealed in the languages analyzed within this volume (§2). Polysemous clause linking devices—especially those which involve apposition—are discussed in §3. In §4, we turn to the categories of Focal and Supporting clause and their role in determining the semantics of clause linking. Further non-clause linking functions of clause linkers are addressed in §5. The origin of clause linkers, and patterns of reinterpretation of multiclausal constructions, are the topic of §6. Prospects for further study are highlighted in the final section.

## 2. 'Core' and 'marginal' semantic types in clause linking

Some types of clause linking are found in every language, and may be considered universal. These include Temporal, Consequence, and, within Addition, Contrast and Same-event Addition (cf. §3 of Chapter 1). These core types are expected to be formally marked.

Other semantic types are marginal. Types such as Possible consequence, Alternatives, and Manner are clearly recognizable in just some languages, while others would employ some other clause linking device to express these.

Languages discussed within this volume have revealed the presence of a few additional semantic parameters within the core semantic types—see §2.1. The issue of further semantic differentiation within 'marginal' types is approached in §2.2.

### 2.1. *Further semantic parameters within the core types*

The major distinctions underlying the Temporal linking can often be captured by parameters such as point in time and length of time, in addition to relative time of Supporting clause with respect to time of Focal clause (Table 3 in Chapter 1). The time span of Focal clause and of Supporting clause can overlap, as in (28) from Chapter 1 (also see Chapter 5; and (13) in Chapter 8). Iquito further distinguishes general temporal overlap, and 'temporal overlap of events construed as extending through *periods* of time' (§4.2 of Chapter 6).

Other parameters which acquire special morphological marking in Temporal succession and Relative time relate to:

- the immediacy of sequential events of the Focal and of the Supporting clause, attested in Iquito (§4 of Chapter 6), Korean (Table 3 of Chapter 12), and Manambu (Chapter 5);
- whether or not the events are construed as 'connected', as, for example, by forming parts of a plan of action or by one event being seen as a consequence of the other, as in Iquito (§4.4 of Chapter 6), and
- approximate relative time as opposed to exact relative time, as in Korean (Tables 3, 4 of Chapter 12).

The semantic type of Relative time in Ojibwe contains an extra dimension, to do with the reiteration of the action of the supporting clause called 'iterative coincidence' by Valentine (§3.2 of Chapter 8). This is similar to the Repetitive temporal clause in Aguaruna (§3.1.1 of Chapter 7). The same meaning in Iquito is expressed with a free relative construction (§4.5 of Chapter 6).



Possible and Counterfactual conditionals are well-recognized subtypes of Conditional linking. In addition, Korean has a special conditional predicting a bad consequence (example (26) in §4.1 of Chapter 12). And the conditional marker *-ketun* is only used ‘when the Focal clause denotes the speaker’s intention’ (§4.1.3 of Chapter 12). ‘Unlikely condition’ in Manambu is a type of conditional distinct from both possible and counterfactual conditions (§3.1 of Chapter 5).

Within the semantic type of Consequence, Purpose may involve further parameters. Mali (§7 in Chapter 15) distinguishes a basic purposive, and also ‘intentional purpose’ (whose indicator consists of the reason clause marker and the purposive) and ‘controlled purpose’, built on the intentional purposive and a multifunctional coordinator.

Akkadian (§5.3 of Chapter 2) employs different purposive constructions depending on whether the purpose has been achieved or not. And in Iquito, one of the two purposive constructions requires that the verb of the focal clause be a motion verb (§5.3 of Chapter 6). We return to the correlations between the semantics of clause linking and other grammatical and semantic features of the clauses in §4.

These additional parameters within established core semantic types of clause linking are found in just a handful of languages, in particular those with a rich array of specialized clause linking devices. Other, less rich, languages can express these meanings through the devices employed for other clause linking types. This highlights the ‘marginal’ character of such rare, ‘exotic’, distinctions.

Discourse-pragmatic factors turn out to be more relevant for Consequence linking than for other types. The two clause linking constructions referring to Cause in Iquito (§5.1 of Chapter 6) differ in whether the cause is presupposed—that is, explicitly mentioned in the previous discourse—or not. In Purpose linking, the clause showing purpose may or may not be the Focal clause depending on the context, and the relative importance of the content of the clause stating the purpose and of the clause stating what is done to achieve it. Manambu (example (19) in Chapter 5) and Akkadian (examples (25–6) in Chapter 2) illustrate this; also see §5 of Chapter 1. Of the different subtypes of Addition, Contrast marking appears to be the most widespread.

## 2.2. *The status of ‘marginal’ types*

Possible consequence is a marginal semantic type of clause linking. Of the languages described in the volume, Galo, Akkadian, Ojibwe, and Iquito have no dedicated expression of Possible consequence. This meaning can be conveyed

by a negated purpose clause (as in Akkadian, §6 of Chapter 2; a similar strategy is also available in Korean: §4.3 of Chapter 12). Disjunction is employed to express this meaning in Konso (Chapter 14).

However, the presence of a special ‘apprehensive’ marker is a salient feature of Australian languages (see Chapter 11 and Dixon 2002: 87–90), and also of many languages of Oceania (cf. Chapters 9 and 10), Amazonia (cf. Chapter 7 and Aikhenvald 2003), and New Guinea (Chapter 5). Apprehensive meanings are easily borrowed and calqued in the situation of language contact (cf. Aikhenvald 2002: 145–6).

It is most probably the case that Possible consequence is a fairly marginal semantic type in some areas, and rather robust in others. Additional semantic complexity within this type involves a positive or a negative outcome. While no language has been found so far with different specialized means of marking positive and negative Possible consequence, this is not inconceivable.

Unordered Addition is marginal in languages where the semantic interpretation of clause linking relies on context and inference. In Manambu (Chapter 5), there is a strong tendency to read a causal or a temporal meaning into a sequence of clauses (or events). Similarly, in Aguaruna (§4 of Chapter 7) ‘Addition (IV) other than contrast is generally expressed with the same structures used for temporal (I) and consequence (II). As a result, “pure” addition, expressed by apposition, is rare—most clause-linking constructions have some temporal or causal implication.’ Other languages—such as Toqabaqita (§6.1–2 of Chapter 10), and Korean (Chapter 12)—have a rich array of means of expressing addition. Others use a polysemous device—an example is Goemai (Chapter 13); see §3.

Besides Unordered addition, some languages—e.g., Martuthunira—may have hardly any devices for elaboration. Elaboration in Akkadian (§7.2 of Chapter 2) (expressed through the polysemous coordinator *u*) involves the second clause strengthening the first one. Potentially, this could be considered a further marginal subtype of ‘Addition’ linking. Kham (§4.7.2–3 in Chapter 4) offers two further potentially new subtypes: incongruous actions and alternating actions, both of which have specialized marking. A further new meaning is Attendant Circumstances in Toqabaqita (§9 of Chapter 10).

Marginal semantic types of clause linking may not be expressed with clause linking devices at all. Hypothetical manner in Boumaa Fijian (Chapter 9) is marked by a verbal prefix. The meanings of rejection and suggestion in Galo (§6.2 of Chapter 3) are also ‘handled monoclausally, via predicate inflections and/or particles’. Marginal meanings can be expressed using correlative relational elements, as in Ojibwe (§3.15 of Chapter 8).

This is not to say that core semantic types of clause linking cannot be handled with alternative means. If they are, we expect a language to also have multiclausal constructions with similar sets of meanings. Thus, one subtype of serial verb constructions in Goemai can be considered a major strategy for expressing temporal relations. Serial verb constructions are monoclausal (which is one of their definitional properties: see Hellwig 2006, and Aikhenvald 2006 for a typological background). Goemai is also said to have a variety of multiclausal constructions for temporal relations (see §1.2 and §2.1 of Chapter 13).

We now turn to polysemous clause linking devices.

### 3. Polyfunctionality, polysemy, and inference in clause linking

#### 3.1. *Polysemous patterns in clause linking devices*

A clause linking device can be used for just one semantic type of clause linking. For instance, in Aguaruna (§3 of Chapter 7) ‘a few grammatical constructions show a one-to-one relationship to a semantic type: conditional, purpose, possible consequence, and concessive relations are all marked distinctly.’ Alternatively, one device can cover several semantic types of clause linking. In Aguaruna, ‘other types, particularly temporal and consequence, are grammatically indistinct’.

A clause linking device can cover two or more meanings within the same core type. Conditional and temporal meanings are very often expressed with the same device, as in Konso, Goemai, and English. Cause and Purpose are marked with the same device in Toqabaqita (Chapter 10). We will see in §3.3 that this is one of the recurrent patterns of polysemy in speech report constructions as clause linking devices. Further examples of one device covering all subtypes of Consequence, and another spanning all kinds of Addition, are in §4.3 and §4.5 of Chapter 1. These patterns of polysemy can serve as additional evidence in favor of high-order types—such as Temporal, Consequence, or Addition.

Polysemous patterns in clause linking can span different semantic types. In many languages, Relative time and Cause are expressed with the same device—as is mentioned in §4.3 of Chapter 1, with an illustration from Jarawara, and also Fijian (Chapter 9), and Manambu (Chapter 5). In Toqabaqita, expressions of temporal sequence often carry an implication of an additional relation between the two states of affairs, such as Result (example (6) in §3.1 of Chapter 10):

- (1) Nau    qae-ku            e            rusu    kwa        qaru  
       1sg    foot-1sg:PRS    3sg:NFUT    slip    1sg:SEQ    fall  
       I, my foot slipped, and I fell down.

This pattern of polysemy follows an almost self-evident path: if two events are mentioned together as following each other in time, it may be possible to infer that one is the cause of the other (see Thompson and Longacre 1985: 181 ff.).

Galo (Chapter 3), Kham (Chapter 4), and Aguaruna (Chapter 7) employ the same device for Temporal succession and Addition (also see §4.5 of Chapter 1). This polysemy reflects a tendency to ‘read’ overtones of Temporal succession into any sequence of actions (reflected in Addition). Further, less well-attested patterns of polysemy include Result and Contrast in Boumaa Fijian (both can be marked with *ia* ‘but, well, then’), and Contrast and Cause/Result in Aguaruna (§3.4.3 of Chapter 7).

The ways in which polysemous patterns group together may be language specific. In Korean (Chapter 12), some devices display polysemy within a semantic type, with some going beyond one type. The ender *-ese/ase* indicates: Temporal succession (17a), Cause (17b), Manner (ways/means) (43a), Result and Relative time (same time), as in (44). The ender *-(u)myen* expresses Relative time (‘when’) and Conditional, while *-ko* marks Temporal succession and Addition, *-nulako* marks Cause and Same-event addition, and *-(u)mye/-(u)myense* is used for Same time and Addition (§4.7 of Chapter 12).

As mentioned at the end of §2.2, marginal semantic types are likely not to have a specialized means of expression at all. For instance, Manner is likely to be expressed using a clause linking device which also covers other semantic types. In Korean, manner is expressed with the polysemous marker *-ese/-ase*. Suggestion and Rejection are often achieved through multifunctional apposition, as in Manambu (Chapter 5). And the rare variety of clause linking relating to Location (see example (21) in Chapter 8, for Ojibwe, and §4.1 of Chapter 1) is typically handled by relative clause constructions in other languages.

The exact interpretation of a polysemous device may rely on the context. In Konso, ‘the semantic link between the two clauses linked with *ka* is open for interpretation’—covering temporal succession, addition, and also causal consequence (§2 of Chapter 14).

In most languages within this volume, a context-dependent device turns out to cover at least one of the Temporal meanings and also Addition. So, in Martuthunira ‘the locative suffix codes a relatively unspecified dependency relationship between the two clauses—in the simplest cases, that relationship

is a temporal one' (§3 of Chapter 11). Further similar examples come from Mali, Manambu, Akkadian, and Aguaruna. In all likelihood, this reflects a general cross-linguistic tendency. A detailed account of the overtones for a 'default' clause linking device remains a matter for further investigation. Alternatively, there may be grammatical means for disambiguating different meanings—see §4.

We now turn to two cross-linguistically rather common polysemous clause linking devices. Both involve apposition, but the semantic effects tend to be different.

### 3.2. *Simple apposition of clauses*

Apposition of clauses involves no segmental marker indicating that two clauses are linked. There is typically a 'characteristic intonation tune showing the connection between them' (§2.1 of Chapter 1). In Lichtenberk's words (§2 of Chapter 10), 'while the nature of the link between states of affairs is usually expressed explicitly, sometimes it is only implied (and is inferred by the hearer)': then, clauses are juxtaposed to each other. Many—though not all—languages of the world employ this device. Within the current volume, polysemous apposition of main clauses spans a number of semantic types. These include (recapitulating some of the examples in §5 of Chapter 1):

- Temporal succession and Addition in Toqabaqita (Chapter 10);
- Temporal succession, Addition, and Elaboration in Iquito (Chapter 6);
- Temporal succession and Cause in Martuthunira (Chapter 11);
- Temporal succession, Relative time, and Result in Boumaa Fijian (Chapter 9);
- Conditional, Consequence, Addition, and Contrast in Goemai (Chapter 13); and
- Possible Consequence, Addition, and Contrast in Kham (Chapter 4).

In Hellwig's words (§2.4 of Chapter 13), 'apposition is semantically general: it conveys a relationship between the state-of-affairs expressed in the two clauses, but leaves the nature of this relationship implicit. Its interpretation depends on contextual information.' In all the examples above, apposition covers at least one Temporal meaning (namely, conditional, which is said to be rare: see example (18) in Chapter 13).

Goemai is said to have 'limits to the kinds of relationships' apposition can express: it cannot receive a purely temporal interpretation. In Goemai, dedicated syntactic markers are available for consequence, and for condition and other types—'speakers prefer to use them instead' of apposition, whose most

frequent reading is addition or contrast—‘presumably because there are no ready alternatives to express these functions otherwise’. These meanings can be considered central for clause apposition in Goemai.

Along similar lines, in Konso (Chapter 14) apposition is only used for addition. In Mali it is restricted to elaboration, while apposition in Galo covers elaboration and also disjunction.

The reason why some languages use formally unmarked clause linking less than others is twofold (see §5.8 of Chapter 1). Languages with a multiplicity of clause linking devices, such as Korean, have little use for apposition. Languages which already have highly polysemous ‘default’ clause linkers—such as Konso—also make little use of apposition.

Apposition is rare in Akkadian. Just occasionally, the polysemous clause linking particle *-ma* ‘can be omitted, and temporal succession is thus expressed as apposition. The immediacy of apposition may perhaps create a slightly more emphatic effect’ (§4.1 of Chapter 2). Extensive use of apposition is linked to the reliance on shared context and inference, and is in many languages—such as English—a feature of colloquial speech. Written register tends to be more precise and less elliptical. An additional factor responsible for the rarity of apposition in Akkadian could be the specialized nature of the materials in this language—one of the oldest written languages known to humankind.

Apposition itself may not be as straightforward as it seems. Putting two main and two dependent clauses together may have a different semantic effect. In Manambu, apposition of main clauses is a way of expressing Relative time, Result, Elaboration, Contrast, Rejection, and Suggestion. Apposition of medial clauses implies Temporal succession (Chapter 5). Along similar lines, apposition of fully inflected clauses in Iquito expresses Temporal succession or Elaboration (as in (4) and (29) from Chapter 6), while apposition of nominalized verbs yields Unordered addition (27).

Polysemous speech reports can be viewed as a subtype of apposition—see the next section.

### 3.3. *Polysemous speech reports*

Every language has a way of reporting what someone else said. The vast majority of the world’s languages have direct speech reports. Then, the Speech Report content is a more or less faithful reproduction of what the Original speaker had said. Some languages also have indirect speech reports, recasting the original contents as their own—this is typically accompanied by person shift: see a survey in Güldemann and von Roncador (2002). Aikhenvald (2008a), and references

there, contain a summary of speech report constructions, the criteria for direct, indirect, and semi-direct speech reports, as cross-linguistically valid concepts.

Verbs of speech which occur with speech reports can be highly versatile in their semantics, going beyond simply ‘speaking’ into expressing cognition, desire, and intention (see, for instance, Rumsey 1990, 1994).

As Munro (1982: 316) put it, ‘the meaning of “say” must... go beyond the idea of simply communicating facts by uttering words, and must probably include at some level a recognition of the general human reaction to Speech as a characteristic indicator of personality and intention’. Accordingly, Speech reports can acquire numerous extensions—many of which correspond to the semantic types of clause linking discussed in this volume.

Verbs of ‘saying’, especially those capable of taking a direct speech report, are typically employed in expressions of thought, emotions, and intention. In Dolakha Newari, a direct quote construction which consists of a direct speech report followed by the participial form of ‘say’ is used to express hope, thought, or fear. To say ‘He was afraid the dog would bite’ one says (Genetti 2006: 149):

- (2) ām [khičā=n nyā-eu] haŋ-an gyāt-a  
 3sg dog=ERG bite-3sgFUT say-PARTICLE fear-3sgPAST  
 Lit., Saying ‘the dog will bite’, he feared.

This kind of construction, and its whole array of meanings, is an areal property shared by numerous South Asian languages (Noonan 2001, Saxena 1988): a direct speech construction expresses cause, purpose, and intention. For instance, a sentence like ‘Because the cow wanted to get into the field, it made me hurry’ literally translates into Chantyal, a Tibeto-Burman language, as ‘The cow will go in the field, having said, it made me hurry’.

We saw in §2.2 above that Possible consequence as a separate formal type of clause linking is represented in some areas but not in others. Along similar lines, polysemous speech reports tend to cluster in certain areas. In Galo and Kham, both Tibeto-Burman languages, speech reports are used for Purpose linking; in Galo, they also cover Cause, Result, and Possible consequence (§3 of Chapter 3; §4.2.2 of Chapter 4). Unlike simple apposition discussed in §3.2, polysemous speech reports are hardly ever employed for Conditional, Addition, or Contrast linking.

Polysemous speech reports have been described for numerous languages of New Guinea: they express intention and cognition in Maybrat (Dol 2007: 203–4), and also purpose in Tauya (MacDonald 1990), in Korowai (van Enk and de Vries 1997: 104–5), in Kombai (de Vries 1990), and in a number of Western Austronesian languages (Klamer 2000). Lower Grand Valley Dani

also employs direct speech reports to express the speaker's intention (Bromley 1981: 245). There can be further meaning extensions. In Erromangan (Crowley 1998: 257), a speech report construction appears in a resultative construction to introduce a direct result of the event described in the preceding clause: 'so that he would go ashore' literally translates as 'saying he will go ashore'. It thus comes as no surprise that speech reports in Manambu (Chapter 5) cover Cause, Purpose, and Possible consequence.

Speech reports in Aguaruna (§2.5 of Chapter 7, and also see Larson 1984: 86–114) express Purpose, Cause and Result, and Possible Consequence. Only a few South American languages are known to have comparable extensions: Tucano, an East Tucanoan language, and its neighbour Tariana, from the Arawak family, employ Speech reports to express Possible consequence (Aikhenvald 2002: 145). Nothing of the sort has been found in, say, Iquito (Chapter 6) or many other languages of Amazonia. A speech report in Aguaruna has a further, rather unusual, meaning: it encodes a temporal relation, 'until' (if the Focal clause is cast in future: example (21) in Chapter 7).

Linking the verb introducing a speech report and a speech report is a type of apposition (appendix in Aikhenvald 2008a provides an overview of other possibilities). However, the patterns of polysemy are more restricted than those described for simple apposition of main clauses (see §3.2). Figure 1 summarizes the recurrent patterns of polysemy for speech report constructions.

Speech reports in Galo, Kham, Aguaruna, and Manambu are extremely versatile. Besides reporting an actual speech event, they are employed in clause linking constructions covering a range of meanings spanning Consequence, Possible consequence (typically negative), and Temporal. In these extensions, they do not presuppose a speech act (see §2.1 of Chapter 1). In other words, they tend to be bleached of their primary meaning. This bleaching goes together

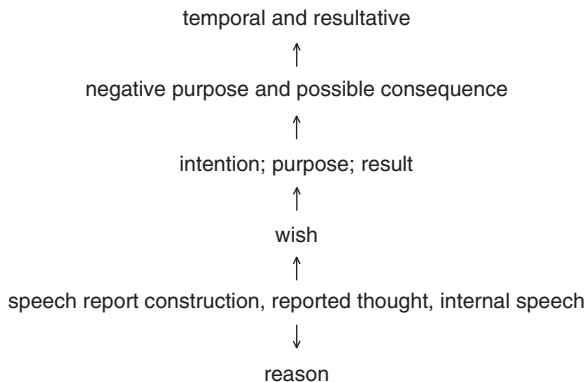


FIGURE 1. Polysemous patterns in speech report constructions



with the eventual grammaticalization of the speech verb itself as a clause linking device—see §6, and examples from Galo and Manambu there.

A language may have a way of distinguishing speech reports which presuppose a speech act (that is, someone saying something) from those that do not. In Manambu, a direct speech report which presupposes a speech act contains the introducer *ata* ‘then’ in the clause which contains a speech act. In contrast, ‘fake’ speech reports employed for clause linking usually lack it (see §2.1 of Chapter 1 and §4 of Chapter 5). To what extent other languages differentiate speech reports in their varied functions remains an open question.

Having a grammatical mechanism for teasing apart the many meanings of one morpheme or construction is useful for deciding whether the form (or the construction) has one primary meaning or whether we are dealing with synchronically distinct structures.

This is akin to Deutscher’s discussion of the two polysemous connectives in Akkadian in §10 of Chapter 2: the uses of connective *kīma* in its Temporal meaning ‘as soon as’, in its Rejection meaning ‘instead of’, and as part of Manner linking are grammatically differentiated. In contrast, the many meanings of the connective *-ma* are not: ‘From the point of view of Akkadian itself, *-ma* has just one basic function: it marks temporal succession between the events and indicates a tight relation between the clauses. The nature of this relation, whether it is “just” temporal succession, or contrast, or result, and so on, is left for the hearer to infer.’

Table 1 summarizes the recurrent multiple functions encountered thus far during this study. Each ‘X’ indicates that there is at least one instance of a form which marks a linking for the column and the row which intersect at that ‘X’. For example, there is an ‘X’ at the intersection of the Result column and the Contrast row, showing that there is a form which marks both these linkings; it is *ia* ‘but, well, then’ in Fijian.

TABLE 1. Multiple functions of clause linking markers

|          |             |       |        |          |                      |          |             |  |  |
|----------|-------------|-------|--------|----------|----------------------|----------|-------------|--|--|
| TEMPORAL |             |       |        |          |                      |          |             |  |  |
| X        | CONDITIONAL |       |        |          |                      |          |             |  |  |
| X        | X           | CAUSE |        |          |                      |          |             |  |  |
| X        |             | X     | RESULT |          |                      |          |             |  |  |
| X        |             | X     | X      | PURPOSE  |                      |          |             |  |  |
|          | X           | X     | X      | X        | POSSIBLE CONSEQUENCE |          |             |  |  |
| X        | X           | X     | X      | ADDITION |                      |          |             |  |  |
|          |             | X     | X      |          | X                    | CONTRAST |             |  |  |
|          | X           |       |        | X        | X                    | X        | DISJUNCTION |  |  |
| X        |             | X     |        |          |                      |          | MANNER      |  |  |

We now turn to further ways in which categories of Supporting or Focal clauses can influence the semantic interpretation of an otherwise ambiguous clause linking device.

#### 4. Clausal categories in clause linking

Categories of the Focal and of the Supporting clause which typically contribute to the semantics of clause linking include reality status, modality, tense, aspect, epistemic, and discourse-pragmatic markers.

Irrealis or counterfactual modality contribute to the hypothetical conditional meaning. In Jarawara (§4.2 of Chapter 1) a hypothetical conditional involves irrealis marking on the Focal clause. In Manambu both Supporting and Focal clauses are marked as irrealis for a Counterfactual conditional linking. In Akkadian counterfactual conditional involves the irrealis particle *-man* (which is supposedly related to the interrogative pronoun ‘who’) (§4.4 of Chapter 2).

Supporting clauses with conditional meanings may contain the marker of irrealis. In Mali, a temporal clause may acquire a quasi-conditional reading once it is used in an irrealis context (example (7) of Chapter 15; also note that the conditional *asika* in Mali is etymologically related to the irrealis marker *asik*: Tonya Stebbins, p.c.). The possible conditional marker in Iquito (§4.6 of Chapter 6) is also used to ‘indicate hypothetical status’.

Along similar lines, in Goemai an additional marker *d’in* (originally indicating ‘close past tense’) marks irrealis and counterfactual condition in temporal/conditional linking (§2.1 of Chapter 13). In Korean, counterfactual meaning is imparted to Conditional linking by a clause linking ‘ender’ in combination with the tense value of the Supporting clause and the Focal clause. For instance, for present or future counterfactual, either the Supporting clause or the Focal clause must be cast in past tense (examples (25b, c) of §4.1.3 in Chapter 12). For the past counterfactual, both the Supporting clause and Focal clause must be in past tense, as in (25d).

The correlation between reality status (that is, realis and irrealis) and the conditional reading of the linkage can be more intricate. In Iquito (§4.6 of Chapter 6), the Focal clause exhibits irrealis order when expressing a temporally definite possible future outcome, and exhibits realis order when indicating a temporally indefinite outcome. In each case, the Supporting clause is obligatorily realis, and must precede the Focal clause.

Future can influence the semantics of clause linking. In Martuthunira, sequences of future-inflected verbs are used to code temporal succession in narrative accounts, procedural narratives, and in relating future plans (§4.1 of Chapter 11).

The semantic value of clause linking can depend on the aspect of the verb. In Goemai, adverbial clauses which provide a temporal setting acquire a sequential ‘past’ interpretation if they are not marked for progressive aspect, and a simultaneous interpretation if they are marked for progressive aspect (§2.1 of Chapter 13 and examples (9) and (10)).

Epistemic particles may contribute to the semantics of the linking. In Galo, clauses in apposition obtain a disjunction reading if they are obligatorily marked by epistemic particles (they often involve different polarity values: §6.1 of Chapter 3).

In the absence of a dedicated mechanism for a semantic type of clause linking, the categories of the Focal and Supporting clause determine the semantics of the whole sentence. In Kham (§4.6.1 of Chapter 4), the most common means of expressing Possible consequence involves juxtaposing a clause containing a negative imperative (saying what is to be avoided) and a clause in future tense (saying what will happen if a negative command is not followed). The expression of Possible consequence in Akkadian and in Korean involves a negated purpose clause (§6 of Chapter 2 and §4.3 of Chapter 12).

Discourse-pragmatic devices—such as topic and focus markers as in Galo (Chapter 3) and Goemai (Chapter 13)—often operate on a par with connectives. The polyfunctional clause linker *da* in Mali is also used to optionally mark a clause boundary if there is a constituent in topic position (§5 of Chapter 15). Supporting clauses in Mali tend to occupy the same position as do topics—this provides additional motivation for these uses of the linker *da* (see example (8) in Chapter 15).

In Mali (§8 of Chapter 15), the adverb *marik* ‘really’ appears to be developing into a marker of Possible consequence, from an additional ‘supporting’ device in the apprehensive reading of clause linking. This is one way in which languages may acquire clause linking devices—see §6.

Some ‘exotic’ verbal categories whose meanings are highly context dependent are used where a speaker of an Indo-European language would expect a connective. Many Amazonian languages have a verbal category of frustrative whose meaning was captured in the title of the first paper on this topic, by Sparing-Chávez (2003) ‘I want to but I can’t: the frustrative in Amahuaca’.

In languages such as Amahuaca (Panoan), Tariana (Arawak: Aikhenvald 2003: 380–2), Hup (Makú: Epps 2005), Iquito (Chapter 6), Aguaruna (Chapter 7), and others, a special morpheme on the verb has just this meaning. Manambu (Chapter 5) also has a verbal suffix indicating that the activity was to no avail—that is, the desired result was not achieved, contrary to expectations.

Consequently, a frustrative may serve an additional clause linking function: it helps contrast two clauses, one stating the expectations, and the other one

(marked with the frustrative) stating the unexpected failure to fulfil them. Similarly, in Iquito (Chapter 6) the frustrative appears in counterfactual conditional linkages. Interestingly, Aguaruna (Chapter 7) employs it in temporal linkages with the meaning of ‘before’.

I hypothesize that in highly synthetic languages with a variety of verbal categories including result, counter-expectation, and various epistemic nuances, each of these contributes to ensuring the textual coherence and thus to linking clauses within sentences. As a result, the total number of dedicated clause linkers may be relatively low since the job is effectively done by other means—as is the case in Matses (Panoan: Fleck forthcoming) or Tariana. This is an issue for further investigation.

## 5. Clause linking morphemes in non-clause linking functions

Clause linking devices can have multiple clause linking functions, covering several semantic types. Some can also have several functions outside of clause linking (cf. §2 of Chapter 10).

A clause linking device can double as a marker of a relative clause, as in Aguaruna (where it is used for temporal linking with a simultaneous meaning: §3.1.1 of Chapter 7). Martuthunira (Chapter 11), like many other Australian languages, employs adjoined relative clauses for clause linking (also see Dixon 2002).

Further polysemous patterns involve tag question markers and disjunctions, as in Mali (Chapter 15; also see §4.7 of Chapter 1), a contrast marker and a negative existential verb, as in *ájapaqui* from Iquito (§8 of Chapter 6). Poly-functionality of temporal interrogatives and temporal linkers such as ‘when’ is widespread in familiar languages of Eurasia, but not so much outside it (the only such example in this volume comes from Iquito: §4.2 of Chapter 6).

Not infrequently, a morpheme employed as a clause linker also marks the function of a noun phrase within a clause, as a case or an adposition. The meanings of such morphemes as clause linkers are consistent with the major semantic types outlined in Chapter 1 (also see the partial list in Thompson and Longacre 1985: 177), especially Temporal sequence, Condition, Cause, Purpose, and Possible consequence. Case markers are also used as complementizers (as shown in Galo, Chapter 10; also see Aikhenvald 2008b). There appear to be no examples of cases or adpositions used for expressing addition or alternatives.

English has a handful of prepositions which can occur on a clause, marking its syntactic relationship with another clause. These are: *after*, *before*, *since*, *until*, *till*, and *for*. The meaning of most prepositions is the same with a noun phrase and with a clause: compare (3a) and (3b). Brackets indicate the

boundaries of the noun phrase and of the clause within the scope of the preposition.

- (3a) She had a hard time after [the death of her husband]
- (3b) She had a hard time after [her husband died]

The preposition *since* is less straightforward: it has a temporal meaning when used with a noun phrase and a temporal or a causal meaning when used with a clause (also see example (57) in §4.3 of Chapter 1). Both (4a) and (4b) are acceptable. The preposition *since* has a temporal meaning in both examples. In (4a) its scope is a noun phrase; and in (4b) it is a clause.

- (4a) I've been very lazy since [the end of summer school]
- (4b) I've been very lazy since [summer school ended]

However, in its causal meaning *since* can only be used with a clause, as in (5a).

- (5a) Since [I disliked his manner], I turned him down.

This meaning with a noun phrase argument would not be acceptable:

- (5b) ?Since my dislike for his manner, I turned him down.

The temporal and the causal meanings are semantically linked—if two events are mentioned together as following each other in time, it may be possible to infer that one is the cause of the other (see Thompson and Longacre 1985: 181 ff.). However, the fact that *since* expresses a causal relationship only when it links clauses alerts us to the fact that the context of use may entail different semantic overtones for what is traditionally considered the same, polysemous, morpheme.

In a nutshell, the meanings of cases and adpositions on noun phrases are consistent with the semantic functions of noun phrases, as recipients, beneficiaries, instruments, and locations (see overview in Blake 2001). The meanings of cases as clause linkers follow the major semantic types in linking clauses. These are intertwined: temporal sequence often has overtones of condition and cause. Purposive clause linking may also indicate Cause, or Possible consequence (see Chapter 1). Based on the selection of language-specific correlations between the meanings of a case with a noun phrase and with a clause (a study based on over 100 languages: see discussion in Aikhenvald 2008b), we can suggest a number of semantic correspondences between their functions on a noun phrase and as clause linking devices.

I. Noun-phrase markers with a dative or purposive, or benefactive, meaning, tend to have purposive meanings as clause linkers. Purpose linking is often expressed with the same morpheme as the dative. In Konso (§2 of Chapter 14),

non-main clauses can also be marked at the end by an adverbial case clitic, such as -'e 'dative' for purposive clauses. In Iquito (§§5.3 and 4.3 of Chapter 6), the allative marker is used for Purpose clause linking and also for temporal anteriority. But, despite its frequency, this is not a steadfast rule: in Ket, the dative case marker is used to mark locative clauses, and even relative clauses (Werner 1997: 353), alongside 'destination' (Vajda 2004: 25).

Toqabaqita (Table 2 of Chapter 10) displays somewhat more unusual patterns. The preposition *uri* marks allative, purpose, and cause with noun phrases, and is employed for Purpose and Cause linking with clauses. The ablative preposition *fasi* marks Purpose linking, and the preposition *suli*—which marks prolative and cause with noun phrases—is used for Cause linking with clauses. In some Tibeto-Burman languages, a locative marks purpose complement (as in Lepcha: Plaisier 2006: 119–20; and Cogtse Gyarong: Nagano 2003: 487). Lichtenberk (1991: 71–4) provides an explanation of how an ablative postposition came to mark positive purpose in Toqabaqita, and Possible consequence, 'lest', in another Oceanic language, Kwaio.

II. Noun-phrase markers with locational meanings are likely to develop temporal connotations indicating relative time 'while'; 'as soon as'; 'after, upon, contemporaneous' and others if they have a clause as their scope. This correlation is akin to a well-documented semantic extension from spatial to temporal notions in the domain of adverbs, and also case markers (Heine and Kuteva 2002: 40–1; 179–80; 183).

A locational meaning of a noun-phrase marker can mirror its meaning with a clause, but within a temporal domain. For example, in Djambarpuyngu, an Australian language, the perlative case means 'along' with noun phrases, and 'concurrent with main clause' on clauses containing motion predicates. An additional extension of 'along' with clausal scope is 'the situation which is the channel or means for the main clause situation' (see Wilkinson 1991: 641–2). In Kham, the nominal lative case 'up to' means 'until' when used with a clause (Watters 2002: 317; also see examples in Blake 1999: 307–8, from Australian languages; and Genetti 1986, 1991, for Tibeto-Burman).

Additional temporal correlates of locational cases in Kham (see Table 2 of Chapter 4) include superessive on nouns and 'as soon as' with clauses, comparative on nouns and 'as long as, as much as' on clauses, allative on nouns and 'provided that' on clauses, and ergative/instrumental on nouns and 'cause' on clauses. The elative marker on nouns is used for Conditional linking with non-nominalized clauses, and in the meaning of Temporal succession, 'after', with nominalizations. This illustrates a certain amount of language-specific unpredictability of individual locational markers in their clause linking functions.

There can be further extensions. A conditional meaning of locative case marker as a clause linker was documented for Ket; this can be viewed as an extension of its temporal meaning (Werner 1997: 354). Elative and ablative have conditional meanings in a number of languages (Rama, Qiang, Kham, and Classical Tibetan). This development can be considered an extension of an erstwhile temporal meaning of a locative morpheme.

A general locative case or an adposition used as a clause linking device is expected to mark Relative time 'when' and/or Temporal succession 'while'. This is corroborated by the data from numerous Tibeto-Burman languages including Kham, Galo, Yampu (Rutgers 1998: 267–8), Atong (van Breugel 2006: 15–16), Eastern Kayah Li (Solnit 1997: 213; 249; 259), and also Manchu (Tungus-Manchurian), Ket (Yeniseic), and Martuthunira (Chapter 11) and Djambarpuyngu (Australian).

That the semantic patterns of cases and adpositions as clause linkers fit in with the mold of semantic patterns of clause linking can be seen as additional evidence in favor of the universal character of these semantic types. More unusual non-core case markers, such as substitutive 'instead' in Manambu (Chapter 5), and the similitive case 'like' in Kwoma (Nukuma family, New Guinea: Kooyers 1974) and in Limbu (Tibeto-Burman: van Driem 1987: 230–5) have the same meanings when linking NPs and when linking clauses. Further examples of case markers in clause linking function are in Gorbet (1973, 1974); also see Moravcsik (1972) and Ohori (1996), for some general observations; further references are in Aikhenvald (2008b).

Adverbial locational markers also develop into exponents of Temporal linking. In Iquito, the polyfunctional forms *atií* 'there (focus)' and *atíji* 'from there' serve both as spatial adverbs, and as temporal clause linking markers: *atií* and *atíji* express temporal succession (§4.1 of Chapter 6, and Lev Michael, p.c.), while *tii-ji* (there-ABLATIVE) forms part of a temporal posteriority collocation, 'from them until now' (§4.4 of Chapter 6). As Valentine (§4 of Chapter 8) puts it, in Ojibwe clause linking, 'relational elements figure prominently, used in relative time expressions, cause, and manner, perhaps in all cases due to semantic extension of more fundamentally locative meanings'. Locational markers can develop into linkers of other types: a conjunction 'on top of/in addition to' marks elaboration in Akkadian and goes back to a spatial expression which literally translates as 'to back of', with the meaning of 'on top of' (§7.2 of Chapter 2).

A recurrent semantic correspondence between spatial meaning of a case, an adposition, or another form, and temporal meaning of a clause linker, confirms that the domains of space and time share conceptual structure.

## 6. The emergence of clause linkers, and their reinterpretation

Clause linking devices with temporal meanings often come from spatial expressions—see examples and discussion in §4.1 of Chapter 1. Independent connectives often come from anaphoric pronouns. The conjunctive adverbials in Korean contain the anaphoric *ku* (§5 of Chapter 12), and the anaphoric pronoun *nu* may function as a connector between two main clauses in Aguaruna (§2.3.2 of Chapter 7). The ‘Result’ linker marker in Iquito (§5.2 of Chapter 6) also goes back to an anaphoric expression: *nihua*=*ácuji* ‘because of that’. Its restriction to clause-initial position suggests that it has been grammaticalized as a connective.

Connectives can be historically related to other morphemes. The contrast marker in Iquito =*quija* is related to the form *-kiha* meaning ‘only’ in Záparo, from the same family (Lev Michael, p.c.). This is reminiscent of the polysemy of Tok Pisin *tasol* (from English *that’s all*) meaning ‘only, alone, just; but, however’.

Adpositional phrases also give rise to connectives: for instance, Akkadian *aššum* ‘concerning; because’ comes from *ana šumi* ‘to name’ (Chapter 2). This is reminiscent of Korean *-ki ttaymwun ey* (NOMZ reason for) ‘because’.

As expected for a language with highly productive serial verb constructions, verbs which typically impart aspectual meanings to the whole constructions (or ‘minor verbs’: see Aikhenvald 2006: 32) develop into conjunctions in Toqabaqita. The form *sui* marks contrast or unexpectedness (see §6.4 of Chapter 10). This form is also used as an intransitive verb *sui* ‘end, finish; be finished’ and as the completive particle *sui* (example (2) in §1 of Chapter 10).

The same form is also used as an incipient Temporal connective, to emphasize the completion of the first state of affairs before the onset of the next one. The verb heads the predicate in a ‘mini-clause’ in apposition to the clause expressing the completed state of affairs. The literal translation of example (5) in §3.1 of Chapter 10 is ‘They killed the three children, it was finished (*sui*), they went’.

Grammaticalization of verbs as connectors does not have to involve reinterpretation of serial verb constructions. In Fijian (§5 of Chapter 9), the verb *bale-ta* ‘caused by’ grammaticalized into a marker of Cause linkage (and also into a preposition ‘concerning’). The relator *ni* after *baleta* may originally have been the marker of a ‘that’ complement clause but it appears now to be simply a part of this complex expression. In Toqabaqita, the contrast marker is *dooqanitaa* which occurs in the Supporting clause; the same form also functions as a verb meaning ‘forgive’ and as an interjection ‘never mind’ (§6.4 of Chapter 10).



Having independent connectives is not a universal feature. They are rare—if attested at all—in clause chaining languages. In these languages, every sentence consists of a series of clauses, links between which are marked by verb endings. Just one clause—typically, the final one in a sentence—carries all the marking of inflectional categories. Typical clause chaining languages are Manambu, Aguaruna, Galo, and Kham (also see Genetti 2005, for a South Asian perspective). Example (8a–b) in Chapter 5 is a typical example of a clause chain.

Clause linking in Korean is achieved through clause enders—which makes it similar to clause chaining—conjunctive adverbials, or combination thereof. These devices differ in their usage: ‘a clause plus a conjunctive adverbial can stand alone as a complete sentence, while a clause plus a conjunctive ender cannot do so. It is possible to have both a clause ender in the non-main clause and a conjunctive adverbial in the main clause for emphasis or certain rhetorical style’ (§5 of Chapter 12).

The clause chaining languages analyzed in this volume have developed independent connectives, based on grammaticalized verbs. Grammaticalized speech verbs in non-final clauses form the basis of connectives in Galo and in Manambu. The speech verb *əm-* ‘say; tell’ in Galo occurs in a connective translatable as ‘(being) thus’. When following realis clauses, it has a causal sense closer to ‘(that fact) being so; because of (that fact)’ (example (22) of §3.1 in Chapter 3). The connective *ata-wa-ta:y* (lit. then-say-COTEMP) in Manambu (§5.1 of Chapter 5) has no synchronic link with any speech act: its only meaning is ‘because, as a result of’. This grammaticalization of a medial clause form of the verb of speech is congruent with its marking cause in speech reports discussed in §3.2.

Clause chaining constructions grammaticalizing into connectives can involve other verbs with fairly general semantics, e.g. Kham *həi jəi-də* ‘thus having made’, meaning ‘that’s why’ (example (43) from Chapter 4) and Manambu *a-lə-k tə-ku* (DEM.DIST-fem.sg-DAT be-COMPL.SS) ‘because, as a result of that’. This is reminiscent of Korean *-(u)l-kka-po-a(se)* (PRS-whether-think-and) ‘for fear that, being afraid that’, *-(u)m ey ttal-a(se)* (NOMZ at follow-and) ‘according to; as (a result of)’, *-(u)l ppun an-i-la* (PRS being, only not-be-and) ‘not only ~ but’ (§2 and Table 2 of Chapter 12), and *wa-nya ha-myen* (why-Q ask-if) ‘because’ (Ho-min Sohn, p.c.).

Bridging constructions in Aguaruna—§2.3 of Chapter 7, and especially example (1)—contain a subordinate form of a pro-verb meaning ‘do that’. Such recapitulating devices operate similarly to connectives. However, unlike the newly grammaticalized connectives ‘that’s why’ and ‘as a result of’ in Kham and Manambu, they are still separate clauses.

We can conclude that reanalysis of medial clauses—whereby they lose their clausehood—can lead to the emergence of connectives. Alternatively, medial clauses with the meaning of Relative time and Same-event addition can be reinterpreted as monoclausal structures, giving rise to complex predicates. This is the case in Manambu (Chapter 5) and in Aguaruna (Chapter 7 and Overall 2007). Similar tendencies have been described for other languages. The progressive aspect in Choctaw formally consists of a clause marked for switch reference and a fully inflected existential or posture verb (Davies 1998: 177–8).

Along similar lines, ‘pseudo-serial’ constructions in Akkadian are used for adverbial modification and contain the linker *-ma*. Synchronically, they are monoclausal (see §3 of Chapter 2).

Another potential development is for a clause linking device to become reinterpreted as a category of the main clause. Possible consequence in Goemai appears to be an example of this. Here, the Supporting clause always describes an event to be avoided. Hellwig (§2.3 of Chapter 13) reports that in the present-day language, speakers increasingly employ the erstwhile marker of Possible consequence to form the negative imperative. This goes together with reanalysis of dependent clauses as main clauses (documented for other languages, including Australian English: see Stirling 1998). In this instance, a Supporting clause has been reanalyzed as Focal.

## 7. Where to from now: prospects for further study

The universal semantic types of clause linking are represented in every language, albeit in different ways. The interpretation of some semantic types of clause linking show a stronger dependency on the broader narrative context than others. We saw in §2.1 that Consequence linking demonstrates more reliance on discourse-pragmatic parameters than other types of linking. This issue requires further investigation.

All languages employ prosody as an additional means for marking clause linking, although this is not always given the attention it deserves. Hellwig discusses clause linking tone contours in Goemai (Chapter 13). The importance of prosodic parameters has been highlighted for Galo, Boumaa Fijian, Toqabaqita, and Konso (Chapters 3, 9, 10, and 14) (and see Genetti 2007). A prosodic contour is the only marker for positive conjoined clauses in Manambu—these acquire a segmental dependency marker only when negated. A cross-linguistic study of prosody in clause linking will be a most fruitful field for future research.

Apposition of dependent clauses may have a different semantic effect compared with apposition of independent clauses (also see §3.2). The categories

of each clause can influence the semantics of such linking in different ways. Only further in-depth inductive studies can help us understand these issues.

Further parameters relevant for clause linking may relate to the overall grammatical structure of each language. The existence of several politeness levels is a pervasive feature of Korean (Chapter 12); at least some clause linking devices distinguish various ‘levels’ (cf. §4.4 of Chapter 12). This highlights the fact that—just like most phenomena in a language—one needs to have a substantial grasp of the whole grammar to be able to competently describe the semantics of clause linking.

Last but not least: each chapter in this volume is written by a dedicated field worker and language analyst. Each chapter is based on a comprehensive grammar (either already written, or in preparation) underscored by texts and materials coming from participant-observation, known as ‘immersion fieldwork’ (Dixon 2007). We eschew questionnaires and grammatical elicitation—these allow the researcher to get what they want rather than what the language has to offer. A uniform factual base ensures the validity of inductive generalizations which underlie the semantic basis for the typology of clause linking and its further developments.

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