A typological study of counterfactuality

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VERSTRAETE

Verhandeling ter verkrijging
van de graad van licentiaat
in de Taal- en Letterkunde:
Germaanse Talen

ingediend door:

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Leuven 2004

ACKNOWLEDGEMENTS

This thesis is the result of one year of reading, studying, visiting libraries, writing and rewriting (especially the latter), and I would not have been able to put the final stop, if I had not been supported and motivated by so many people around me. I am most grateful to my supervisor, Jean-Christophe Verstraete, whose enthusiasm, experience and interest in languages in general and in my study in particular never stopped stimulating me. Further, I would also like to thank Jan Rijkhoff and William McGregor of Aarhus University for their most inspiring initiation into linguistic typology and the study of language more generally. I am also thankful to my friends for bringing distraction and relaxation when I needed it most. Finally, I thank moeke, vake, Jan, Veerle, Leen and Joeri for their support in this and all other challenges in my life.

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ABBREVIATIONS USED IN THE GLOSSES

1	first person	DF	defocusser
2	second person	DS	different subject
3	third person	DST	destinative
3AN	third person animate	DUB	dubitative
3C	third person coreferential	EMPH	emphasis marker
3IN	third person inanimate	ERG	ergative
		EVID	evidential
A	A-participant	EXCL	exclusive
ABL	ablative	EXCLM	exclamative
ABS	absolutive	F	feminine
ACC	accusative	FOC	focaliser
ACT	action particle	FUT	future tense
AFF	affirmative	GEN	genitive
ALL	allative	GIV	given information
ANA	anaphoric	HAB	habitual
ANR	action nominaliser	HYP	hypothetical
ANT	anteriority	ID	identification clitic
AOR	aorist	IMP	imperative
AP	absolutive pluraliser	IMPF	imperfective
ART	article	INCH	inchoative
ASSERT	assertedly	INCL	inclusive
ASSOC	associative	INDIC	indicative
AUX	auxiliary	INDEF	indefinite
BEN	benefactive	INESS	inessive
CAUS	causative	INF	infinitive
CERT	certainty	INFR	inferential
CL	classifier	INSTR	instrumental
CM	construction marker	INT	intimate speech level
CNTR	contrary-to-expectation	INTENT	intentive future
COGN	cognoscitive	INTR	intransitive
COLL	collective	IOV	indirect object version
COMP	complementiser	IRR	irrealis
COND	conditional	ITER	iterative
CONN	connective	LINK	linking morpheme
CONT	continuative	LOC	locative
COP	copula	LP	linking particle
CP	connecting particle	M	masculine
CTF	counterfactual	MD	modifier
DAT	dative	MODAL	modal
DC	declarative	NEG	negator
DEB	debitive	NEGP	negative past
DEF	definite	NEW:TOP	new topic
DEM	demonstrative	NF	non-factual
DESID	desiderative	NFIN	non-finite
DIR	directive	NOM	nominative

NOML	nominaliser	TC	topic-contrast marker
NTRL	neutraliser	TEMP	temporal specifier
O	O-participant	THEM	thematic element
OBJ	object	TOP	topic marker
OPT	optative	TS	thematic suffix
PART	participle	U	unrestricted; unstressed
PASS	passive		syllable
PERF	perfect	UC	uncertainty
PERFV	perfective	UNREAL	unrealised (mood)
PFP	perfect participle	UP	verbal extension indicating
PINV	passive-inverse		movement upward
PL	plural	VE	ventive
PLUP	pluperfect	VR	verbaliser
PO	potential object (extension)		
POESS	postessive		
POL	polite speech level		
POS	possessive		
POST	posteriority		
POT	potential		
PRED	predicate marker		
PREP	preposition		
PRES	present tense		
PREV	preverb		
PROG	progressive		
PROS	prospective		
PRT	particle		
PS	particle suffix		
PST	past tense		
PTV	partitive		
PX	proximal		
Q	question		
QT	quotative		
R	realis		
REF	referential		
REFL	reflexive		
RES	result		
RET	retrospective		
RM.PST	remote past		
RPT	repetition		
S	subject		
SBD	subordinate		
SG	singular		
SPEC	specifier		
SS	same subject		
STAT	stative		
SV	subject version		
SUBJ	subjunctive		
SUBOR	subordinator		

Chapter 1: Introduction

In this thesis, I will present a typological study of counterfactual constructions (i.e. constructions of the type *I should have done the dishes*), using data from a sample of 41 languages. The basic question will be how counterfactuality is encoded in these languages, and what the patterns of marking can tell us about the semantic-pragmatic status of counterfactuality. In this first chapter, I will propose a definition of counterfactuality and discuss the available linguistic literature on this subject. I will also make a basic distinction between simple counterfactual constructions, such as *I should have done the dishes*, and complex ones, such as *If I had taken the bus, I would have been on time.* In chapter 2, I will discuss the methodology of the investigation, dealing with the sampling method I used to select the 41 languages examined. Further, I will also describe how I interpreted the grammars of the languages selected and how I wrote the language-specific reports that are added in the appendix. The results of my cross-linguistic study will be presented in chapter 3 and 4. In chapter 3, I will discuss simple counterfactual constructions, and in chapter 4, I will treat complex - conditional - counterfactual constructions. In both chapters I will investigate the patterns of marking used to express counterfactuality, and see whether these findings may give us a better understanding of how counterfactual meaning arises in semantic-pragmatic terms. Finally, in the concluding chapter I will look back on this study and formulate some questions for further research.

1.1. Introduction

As this study is a typological investigation of counterfactuality, we first need a semantic definition of counterfactuality that is cross-linguistically applicable. How can counterfactuality be recognised in utterances of genetically and geographically diverse languages? In general, I defined counterfactual utterances as utterances in which a speaker states that something could or should have happened but did not: counterfactual

sentences convey the meaning of a potential event or state[1], which in the end was not actualised. In section 1.2, I will attempt to give a semantic definition of counterfactuality, focusing on the double-layered nature of its meaning. In section 1.3 and 1.4, I will investigate how counterfactual meaning is grammatically encoded and how it arises in semantic-pragmatic terms. Many accounts of counterfactuality recognise the past tense as a cross-linguistically recurrent marker of counterfactuality (see, for instance, James 1982, Fleischman 1989, Iatridou 2000), but in 1.3 I will show that this view is untenable. Rather, in counterfactual constructions past tense markers are almost invariably accompanied by other types of marker, typically modal ones. As I will discuss in 1.4, this formally composite marking of counterfactuality suggests that counterfactual meaning is not basic, but rather arises a conversational implicature, which is based on the Gricean principle of Quantity (Verstraete 2004, forthcoming).

1.2. A definition of counterfactuality

As already mentioned above, an utterance can be regarded as counterfactual when it expresses the speaker's assessment that an event could or should have happened, but in the end did not. Counterfactual structures are thus double-layered constructions which have two components of meaning, a first indicating that actualisation of a State of Affairs was potential, i.e. possible, desirable or intended, and a second indicating that it did not take place (Verstraete 2004:7). This double-layered nature of counterfactuality was also described by Bugenhagen (1993), who studied the semantics of the irrealis mood in some Austronesian languages of Papua New Guinea. Investigating the irrealis mood of Sinaugoro, a language spoken in the central province of Papua New Guinea, Bugenhagen finds it has a very specific meaning: it only codes counterfactuality. According to Tauberschmidt & Tauberschmidt (1990:36), the irrealis mood expresses unrealised events, but Bugenhagen describes its function as expressing the presupposition that something which could have happened did not take place (1993:34).

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[1] Henceforth I will use the term State of Affairs (SoA) to refer to any event or state, not distinguishing between the various Aktionsarten that may occur in counterfactual utterances.

He therefore proposes the following paraphrase, formulated in Wierzbicka's metalanguage (1993:34)[2]:

I say:

    I know a time

        this time is before now

        at this time one could think:

            this (=SoA) could happen

            it did not happen

I do not say:

    someone wants this (=SoA)

The last part of the paraphrase (I do not say: someone wants this (=SoA)) is meant to exclude contexts of wanting and it seems to be specific to counterfactual meaning in this particular language[3]. The core meaning of counterfactuality, however, is expressed by the first part only, which clearly distinguishes two layers of meaning. The part "I say: I know a time; this time is before now; at this time one could think: this (=SoA) could happen" expresses the potentiality of a State of Affairs in the past, whereas the part "it did not" indicates that the potentiality did not turn into reality. These two semantic components together constitute counterfactual meaning.

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[2] In this study, Bugenhagen (1993) used the metalanguage designed by Wierzbicka (1993), being aware of the vagueness in the description of modal notions in present-day linguistic treatments of modality. In order to compare semantic phenomena cross-linguistically in a more systematic way, Wierzbicka proposes a semantic metalanguage, "independent of any particular language or culture and yet accessible and open to interpretation through any language" (Wierzbicka 1991:6). This metalanguage, however, is not uncontroversial in linguistic circles. It is carved out of natural language and uses simple lexical items, which are arranged in simple or kernel sentences having a tightly controlled syntax. Formulating meanings in this way enables one to produce a paraphrase which precisely characterises the semantic invariant of the element whose meaning is being explicated.

[3] The part 'I do not say: someone wants this (=SoA)' may be added to characterise the semantics of the irrealis mood in Sinaugoro specifically. The description of the results of my investigation will make clear, however, that desiderative-intentional modality may occur in counterfactual utterances as well, and should thus not be excluded (see section 3.3.1).

It is important to note that counterfactuality can occur in both simple and complex - conditional - constructions. The following are examples of simple counterfactuals:

(1)   I could have written a letter.   ENGLISH

(2)   dro-ze   **u+nd+a** ga-g-e-k'et-eb-**in**-a   GEORGIAN

        time-on **should**   PREV-you-IOV-do-TS-**PLUP**-it

        "You should have done it on time." (Hewitt 1995:267-268)[4]

Both sentences involve an event in the past which was potential. More precisely, in (1) it was possible that I would write a letter, and in (2) it was desirable that you should do it on time. In addition to this potential component, however, there is also a counterfactual one: the utterances are interpreted as *I did not write a letter* (1) and *you did not do it on time* (2). The events referred to thus did not take place.

The structures in (3) and (4) are examples of complex counterfactual constructions:

(3) If I had had known it, I could have told it to you.   ENGLISH

(4)   yaha ahsi-**tu-skiya**,   ni-k-taxta :wih-**tu-skiya**   PIPIL

        he   arrive-**PFP-COND**   I-him-pay-**PFP-COND**

        "Had he come, I'd have paid him." (Campbell 1985:135-2)

The two components of counterfactual meaning can be found in these complex constructions as well. Again, the potentiality of certain States of Affairs in the past is expressed: in (3) it was possible that I would tell it to you and in (4) I intended to pay him. These potential events, however, are interpreted not to have taken place: when reading (3) and (4), you are led to conclude that I did not tell it to you (because I did not

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[4] In all the examples cited, the (combinations of) markers coding counterfactuality are boldfaced, both in the original language and in the glosses. If a certain marker is fused with another morpheme, I only put the gloss in boldface, and not the fused form.

know it), and that I did not pay him (because he did not come). Thus, counterfactual meaning is relevant both to simple and complex constructions.

In conclusion, counterfactuality can best be defined as a double-layered type of construction, expressing that actualisation of a State of Affairs was possible, desirable or intended, but did not take place. This meaning was shown to occur both in simple and complex - conditional - constructions. The following sections investigate how counterfactual meaning is grammatically encoded and what its semantic-pragmatic status is.

1.3. Past tense as a marker of hypotheticality

In many accounts of counterfactuality or, more generally, hypothetical modality, the past tense is considered to be a universally recurrent marker of 'remoteness' from reality. Lyons (1977:809) already noted that logicians usually treat truth or factuality as timeless, or tenseless, and proposed that what may be regarded as tense distinctions could better be regarded as distinctions in remoteness. James, in her (1982) article, puts forward the hypothesis that the greater the degree of remoteness from reality, the more likely it is that past tense will be used to express hypotheticality, given that a language uses it in hypothetical environments at all. Fleischman (1989) then builds on James' (1982) claims to suggest that not only can distance from reality and past tense be correlated, but degrees of distance and pastness are linked as well. She regards temporal distance as a basic linguistic metaphor for abstract, conceptual or cognitive distance from reality. Dahl (1997), however, argues that distance in time is certainly not the only feature making up counterfactual meaning, and that the metaphor theory is untenable. He points out that past tense marking does not very commonly signal hypotheticality or unreality on its own, but is almost invariably combined with another type of marker, usually a modal one. In what follows I will present the accounts of James, Fleischman and Dahl in more detail.

In her cross-linguistic study James investigates six Indo-European languages and six non-Indo-European languages and finds that in all the languages of the sample past

tense marking is used in at least the apodosis[5] of counterfactual conditionals (1982:382). She maintains that the past tense markers in those conditionals indicate the degree of distance from reality rather than establishing past time reference, since they are used when the time reference of the conditional is past, present or gnomic and in such situations we have sufficient factual knowledge to present contrary-to-fact statements (1982:377). In explaining why the apodosis is more often marked for past tense than the protasis, she suggests that the counterfactual apodosis is still one degree more hypothetical than the protasis. The protasis sets up an imaginary world in which X is the case. The imaginary nature of this world entails that we are already one step away from reality. Under the condition 'given X, Y', a further logical step is required for the realisation of Y, which is more hypothetical and further removed from reality than X since it is contingent on X (1982:378). In counterfactual wishes, past tense is used in every language for which James has relevant data available, but she notes that alternative constructions without past tense marking are also commonly used. She further examines non-contrary-to-fact environments, such as polite requests and wishes for the future, and finds that past tense marking most frequently occurs as a means of making a construction one degree more hypothetical than it otherwise would be (1982:385-95).

It should be noted, however, that James still considers the 'past time' meaning as the basic meaning of the relevant morphemes, which has been extended to some 'hypothetical' cases because of the fact that the 'past time' meaning universally includes the notion of 'remoteness from present reality' (1982:398). In doing so, she rejects Steele's (1975) and Langacker's (1978) view, who argue that in the languages in which the past tense marking phenomenon occurs, the morpheme in question should be regarded as meaning basically 'remote from present reality' rather than 'past tense'. These authors propose the notion of 'remote from present reality' as a universal semantic primitive, which Steele labels 'Dissociative' and Langacker 'Distal' (James 1982:397-98). Further, James concludes that past tense marking cannot be said

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[5] In the linguistic literature, various terms are used to refer to the *if*-clause and *then*-clause of a conditional construction. An *if*-clause can also be called 'antecedent' or 'protasis', while a *then*-clause is often referred to as 'consequent' or 'apodosis'. In this study, however, I will only use the terms 'protasis' and 'apodosis'.

specifically to mark complete unreality. In a contrary-to-fact environment the counterfactual meaning derives from the combination of the remoteness from reality meaning, associated with the past tense marker, with "other aspects of meaning present in the construction and in the context" (1982:396). As we will see below, this idea of counterfactual meaning being construed by past tense in combination with other elements is exactly what Dahl points out in his (1997) article.

The relation of pastness to remoteness from reality is even more prominent in the work of Fleischman (1989), who suggests a metaphorical relation between temporal distance and modal distance. She assigns not only a referential function to tense, but also a pragmatic (i.e. textual and expressive) one, thus seeing temporal distance as a linguistic metaphor for a more abstract conceptual and cognitive distance. In her argument, she builds on James' (1982) hypothesis that the greater the distance from reality in a certain construction, the more likely one is to find past tense used to express hypotheticality, and she argues that "the greater the distance from reality, the more remote the past tense used to represent that epistemic distance" (1989:6-7). Thus, she finds that the pluperfect in counterfactual protases in Romance languages indicates higher levels of hypotheticality than the simple past, used in improbable protases (1989:5-6). She further investigates other types of discourse (written and spoken, literary and conversational, narration and ordinary speech) and points out that the notion of temporal distance, expressed through grammaticised remoteness distinctions, is cross-linguistically used to express conceptual or cognitive distance, more precisely distance along the axes of modality, social/interpersonal distance, assertiveness, evidentiality and speaker subjectivity (1989:37-38).

Dahl (1997), however, rejects the temporal metaphor theory, suggesting that it is rarely the case that past tense alone serves to mark the hypotheticality of an utterance. He thus also repudiates the received view according to which the hypothetical use of past tenses is called 'backshifting', since in languages like English in hypothetical conditions the past tense is used for present and future time reference and the pluperfect for past time reference (Quirk et al.1985:1091-93). According to the 'backshift' view, in utterances like *if I were invited, I would come to the party* and *if I had planted the seed, there would have been a tree by now,* the conditions express the speaker's belief with regard to the fulfilment of the condition, which are taken to be contrary to assumption

and contrary to fact respectively. Dahl argues, however, that these examples are both counterfactual and that the past tenses do not signal unreality on their own. The first structure, for instance, has the now obsolescent past subjunctive form (**were**) in the protasis whereas the apodosis contains the modal auxiliary *would*, which both contribute to the counterfactual meaning of the utterance, together with the past tense (1997:89-99). He suggests there is indeed a link between past tense and counterfactuality, but this relation should not be seen as one of similarity, with pastness and counterfactuality as specific instances of remoteness. Dahl thus shows that both the 'past-as-unreal' hypothesis and the received backshift view are not tenable.

How does Dahl see the relation between past tense and counterfactuality? Using Tedeschi's (1981) 'branching-futures' model, he concludes that counterfactual assumptions always (or at least under normal circumstances) depend on a past choice point (1997:101-107). In this model, time is treated as a tree-like structure as in Figure 1, with a possible 'history' or 'course of events' being a path through the tree.
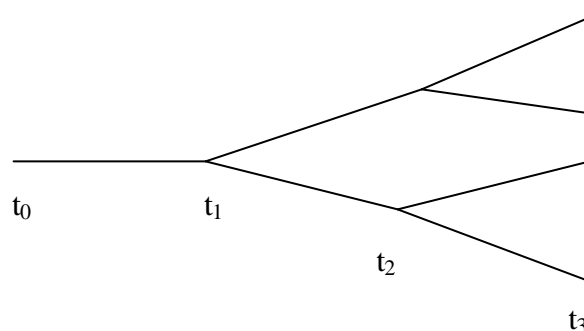
Figure 1: The branching-futures model (Dahl 1997:102)

"At any point in time, there is one past and an infinite set of possible futures. A counterfactual situation, with respect to a point in time t, is located at the branch of the tree that can be found by going backwards in time from t and then forwards along an alternative path" (Dahl 1997:101-2). Counterfactual utterances with past or present time reference thus always rely on a choice point in the past. A sentence referring to a future event may also be counterfactual if it has been excluded by a blocking factor in the past (Leirbukt 1991). For instance, the sentence *If Guido Gezelle had been alive next year,*

he would have been 175 years old, has future time reference, but it is counterfactual since we know Gezelle died in 1899. His death, which is a past event, thus functions as a blocking factor. Clearly Dahl sees a connection between past time and counterfactuality, but rather in a more complicated way than the proponents of the temporal metaphor hypothesis suggest.

In conclusion, the rather influential view which considers past tense as a cross-linguistically frequent marker of hypotheticality with the 'past-as-unreal' hypothesis as its strongest version is untenable. The idea of similarity between pastness and counterfactuality in terms of remoteness should be abandoned since past tense rarely marks counterfactuality on its own. In this study, I will adduce further cross-linguistic evidence for this argument. As will be seen in chapter 3 and 4, no single language in the sample encodes counterfactuality with only past tense marking, and in some languages counterfactual constructions do not contain past tense marking at all. As Dahl (1997) suggests, however, there is a certain connection between pastness and counterfactuality in that counterfactual propositions depend on a choice point or blocking factor in the past.

1.4. How does counterfactual meaning arise?

The discussion above pointed out that counterfactuality is almost never encoded by past tense alone, but rather by past tense together with another type of marker. Dahl (1997:101) notes that in many languages past tense markers are combined with future tense markers in counterfactual constructions. Further, in his example of a present counterfactual conditional (viz. *if I were younger, I would study Classical Greek*), he discusses the use of the subjunctive form (*were*) and the modal auxiliary (*would*) in combination with past tense marking (1997:98-99). The types of markers that are combined with past tense markers mentioned here typically have some modal flavour (see section 3.3.2 on the relation between future tense and modality), which raises questions about the semantic-pragmatic status of counterfactuality. The finding that counterfactuality is rarely encoded by past tense marking alone, but rather by a combination of elements that have other meanings in other contexts (such as past tense markers, modal markers or future tense markers) seems to suggest that counterfactual

meaning is not basic. Rather, as put forward in Verstraete (2004, forthcoming), counterfactual meaning may arise as an implicature triggered by a pragmatically marked combination of markers. According to Verstraete (2004), this implicature is based on the Gricean principle of Quantity. In what follows, I will present his line of argument.

As the starting point of his quantity-implicature analysis, Verstraete (2004) mentions the work of Ziegeler (2000a) on the diachronic development of conditional constructions in English. Ziegeler (2000a), in turn, starts from the idea of modality as a scalar item and suggests that conditional clauses ('if p') and modalised expressions ('possible p') form a Horn scale with the corresponding non-modalised form ('p'). She draws an analogy with the classic quantifier example with *some* and *all* (Horn 1989), where use of the weaker expression on the scale (*some*) implicates the negative of the stronger expression (*not all*) by the first tenet of the Gricean maxim of Quantity[6], viz. "make your contribution as informative as is required for the current purposes of the exchange" (Grice 1975:45). When applied to propositions rather than quantifiers, the scale involved is one of truth-value or factuality, rather than quantity, with the negative of the stronger expression amounting to counterfactuality: "using 'it was possible that p' rather than the more informative 'p happened' conversationally implicates that p did not happen" (Verstraete 2004:11).

According to Verstraete (2004), Ziegeler, who mainly deals with complex counterfactuals[7], does not explain the privileged position of past tense in counterfactual utterances in a systematic way. By contrast, he focuses on simple counterfactual sentences and proposes a Horn scale of past modality in terms of epistemic strength. On this scale, a past modalised expression like 'p was possible, desirable or intended' is epistemically weaker than its non-modalised complement 'p happened', since the

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[6] The Gricean maxim of Quantity is subdivided in two tenets: (i) "Make your contribution as informative as is required for the current purposes of the exchange [henceforth Q1]; and (ii) "Do not make your contribution more informative than is required [henceforth Q2]" (Grice 1975:45). In her treatment of conditional constructions, Ziegeler argues that the implicature basic to counterfactuality is actually a Q2-implicature which in turn is converted into a Q1-implicature. This conversion of Q2-implicatures into Q1-implicatures is explained in terms of suspension (see Ziegeler 2000b for further reading).

[7] In her article on past ability modality and the derivation of complementary inferences, Ziegeler (2001) does treat simple counterfactuals. Again counterfactual meaning is shown to arise as the conversion of a Q2-implicature into a Q1-implicature.

former is an assessment of potentiality rather than certainty (2004:11). The use of the epistemically weaker modal expression then Q1-implicates[8] the negative of the stronger non-modal expression. To put it differently, if a speaker uses an epistemically weaker (or in Gricean terms: a less informative) construction, the hearer concludes that the event referred to did not take place, considering that the speaker must have had a reason not to use the stronger (or in Gricean terms: more informative) non-modal expression. According to Verstraete (2004), it is the concept of epistemic strength that can explain the privileged role of past tense in counterfactuality. "Because the past is inherently knowable, a past non-modal expression will be an expression of certainty and will therefore be epistemically stronger than its modal counterpart and trigger counterfactuality implicatures" (2004:11). In the non-past domain, however, modalised expressions like 'p is possible, desirable or intended' do not Q1-implicate 'p will not happen'. "Because the future is inherently unknowable, 'p will happen' is not an expression of certainty, and therefore does not serve as an epistemic maximum relative to modalised counterparts, and does not trigger counterfactuality implicatures" (2004:11). Verstraete thus analyses counterfactuality as a quantity implicature which is triggered by the pragmatically marked combination of past tense and modality. The modal element creates a scalar relation with its non-modal complement, while the past tense element guarantees that this non-modal complement expresses certainty and thus serves as "an epistemic maximum that can trigger a counterfactuality implicature" (2004:11).

   Verstraete (2004) offers three further arguments for the implicature analysis. A first one relates to the formal marking of counterfactuality in the non-Pama-Nyungan languages of northern Australia. In the majority of the languages investigated the marking of counterfactuality is composite, i.e. consisting of an irrealis prefix (a modal element) and a past suffix (a tense element). As these elements can also occur in non-counterfactual contexts with a non-counterfactual meaning, this composite marking suggests that counterfactual meaning is not basic, but typically arises as a quantity-implicature triggered by the pragmatically marked combination of a modal and a past tense element. A second - semantic - argument says that the implicature analysis can

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[8] Verstraete (2004) does not specify the type of quantity implicature involved, but he obviously has Q1-implicatures in mind.

also explain the double-layered meaning of counterfactuality, which was treated above. Apart from the counterfactual element of meaning that signals that a certain State of Affairs was not actualised, counterfactual utterances were also found to contain a specifically modal element of meaning, related to epistemic, deontic or desiderative-intentional types of modality. Thus, counterfactual utterances signal that something was possible, desirable or intended, but did not take place. A third argument involves the cancellability of the counterfactuality implicature. Verstraete (2004:14-15) offers examples of utterances that contain past and modal marking, but that do not convey counterfactual meaning. In these cases, the counterfactual element is cancelled, for instance by an adversative clause, and thus only the basic past modal meaning remains. If counterfactuality were part of the meaning of the markers involved - and not an implicature - its meaning would not have been cancellable. Focusing mainly on simple counterfactual constructions, Verstraete (2004) thus gives a formal, semantic and pragmatic argument in favour of the quantity-implicature analysis. Together with the past-hypothesis proposed by James (1982) and Fleischman (1989), the modal-with-past hypothesis put forward in Verstraete (2004) will be the basic hypotheses to be tested in this study.

1.5. Conclusion and basic research questions

In this chapter I attempted to formulate an answer to the questions of how counterfactuality can be defined, how its meaning is grammatically encoded and how this meaning arises in semantic-pragmatic terms. The semantic feature of counterfactuality was shown to be two-layered, indicating that a State of Affairs is (1) possible, desirable or intended, but (2) in the end not actualised. Investigating how counterfactual meaning is cross-linguistically encoded, I presented James' (1982) view which regards past tense as a marker of hypotheticality. Fleischman (1989) builds on her argument and proposes temporal distance as a basic linguistic metaphor for conceptual or cognitive distance. Her 'past-as-unreal' hypothesis is, however, rejected by Dahl (1997), who suggests that counterfactuality is rarely coded by past tense alone. The link between pastness and counterfactuality should thus not be seen as a relation of similarity in terms of remoteness, but in that counterfactual propositions rely on a

choice point or blocking factor in the past. Finally, I discussed the semantic-pragmatic status of counterfactual meaning. As in counterfactual constructions past tense markers are almost always combined with another type of marker, typically a modal one (Dahl 1997), we are led to conclude that counterfactual meaning is not basic, but rather arises as a conversational implicature. According to Verstraete (2004), who elaborates on Ziegeler (1995, 2000a, 2000b, 2001), this implicature is based on the Gricean maxim of quantity. In his account, he mainly focuses on simple constructions and offers an explanation for the privileged role of past tense in counterfactual utterances. He argues that the combination of past tense and modality is semantic-pragmatically marked, which may trigger counterfactuality implicatures.

The following chapters present the results of my cross-linguistic investigation of counterfactuality, in which I systematically distinguish between simple and complex constructions. While studying the grammars of my sample languages, I used the definition discussed above to pick out counterfactual construction types. The two other questions raised in this chapter will serve as basic research questions for the study. First, are there any languages that use only past tense marking to code counterfactuality, or is Dahl (1997) right in suggesting that in counterfactual utterances past tense is almost invariably accompanied by another type of marker? And if so, what other types of markers do we actually find in counterfactual propositions? Secondly, what does the coding of counterfactuality tell us about the way counterfactual meaning arises? Do, for instance, languages coding counterfactuality by only one marker refute the quantity-implicature analysis? These questions will be dealt with in chapter 3 and 4. Before going into the results of my investigation, however, I will discuss the methodology of my study, focusing on the sampling method I used to select the languages and the way I studied the relevant grammars and wrote the reports on the languages examined.

Chapter 2: Methodology

In order for a cross-linguistic study to be typologically and descriptively adequate, the languages examined should be as diverse as possible, so that we gain an insight into how a particular phenomenon can be encoded in natural languages. Investigating counterfactuality from a cross-linguistic perspective, I therefore selected a sample using the sampling method developed by Rijkhoff et al (1993, 1998), as implemented in Rijkhoff (2002). The sampling method I used and the actual sample I selected will be discussed in 2.1. Further, I examined the grammars of my sample languages and summarised my findings in reports, one for each language, which are added in the appendix of this study. In section 2.2 I will describe how I analysed the relevant grammars and 2.3 will discuss the structure of the reports.

2.1. The sample

In order to investigate how different languages encode counterfactuality and how its grammatical coding can tell us something about how its meaning arises in semantic-pragmatic terms, I selected a diversity sample which is designed to reveal as much as possible about the full range of linguistic variation in the languages of the world (Rijkhoff 2002:5). I will first discuss the sampling method I used and then present my actual sample.

My study on counterfactuality is based on data from an ideal sample of fifty-two languages, which were selected on the basis of the sampling method designed by Rijkhoff et al. (1993). Since it is designed to "maximise the amount of variation in the data in samples of any given size" (Rijkhoff et al. 1993:171), the authors call it a *diversity sample* in contrast to a *probability sample,* which is more suitable for statistical or probabilistic purposes. Specifically, they assume that the selected languages are most diverse when the sampling method controls for genetic bias, since this kind of bias may generate other sources of bias, for instance of a geographic, typological or cultural kind. The method is based on Ruhlen's (1987) classification of the world's languages and accounts for linguistic diversity both *across* maximal genetic groupings (or phyla) and *within* these groupings (Rijkhoff 2002:5). The former is

guaranteed by the procedure's requirement that every phylum is represented by at least one member. The latter is ensured by the requirement that the number of languages representing a phylum correlates proportionally with the linguistic diversity within that phylum (Rijkhoff et al. 1993:179). In order to measure the diversity in such a group of genetically related languages, Rijkhoff et al. (1993) designed a technique which involves the computation of a factor, called Diversity Value (DV). The DV thus indicates the linguistic diversity within a phylum: "the greater the linguistic diversity of a language family, the higher the DV and the more languages of that family will be included in the sample" (Rijkhoff 2002:5).

How are the DVs calculated? The method starts from the graph theoretic structure of a genetic language tree reflecting the internal make-up of the phylum in question. The underlying assumption is that the linguistic diversity within a phylum depends on the historical relations between the member languages, in that "[t]he more branches a phylum has close to the top node of the tree, the more diverse it is taken to be" (Rijkhoff 2002:5). It would lead us too far to go into the technicalities of the formula calculating the DV of a phylum, but it should be noted that it takes both the width and the depth of the relevant language tree into account. Further, the DV is not only used to see how many languages may represent a phylum, it also indicates how languages should be distributed over subphyla (and sub-subphyla, depending on the predetermined size of the sample). The method thus accounts for the linguistic diversity within phyla by using the DV and can be applied recursively, always ensuring that the languages selected are as genetically diverse as possible.

In his genetic classification, Ruhlen (1987) distinguishes seventeen phyla and nine language isolates. He further identifies thirty-eight Pidgin and Creole languages, which Rijkhoff et al. (1993) treat as one phylum; sixteen languages remain unclassified, which Rijkhoff et al. (1993) ignore. The minimal diversity sample thus contains twenty-seven languages, each from a different phylum. However, I expanded the sample to fifty-two languages as in Rijkhoff (2002), who showed that this sample size has a good measure of diversity. Most phyla are thus represented by more than one language and the distribution of these languages over the phyla was based on their DVs. Table 1 below represents the ideal fifty-two language sample, which is largely based on that in Rijkhoff (2002).

Family	Language	Source	Region[9]
Afro-Asiatic, Chadic	**Hdi**	Frajzyngier 2002	Nigeria
Afro-Asiatic, Cushitic	**Somali**	Saeed 1999	Somalia
Altaic	**Turkish**	Kornfilt 1997	Turkey
Amerind, Central	**Pipil**	Campbell 1985	El Salvador
Amerind, Ge-Pano-Carib	**Tiriyo**	Meira 2000	Suriname
Amerind, Northern, Wakashan	**Nootka**	Davidson 2002	Canada
Amerind, Northern, Penutian	**Koasati**	Kimball 1991	USA
Amerind, Equatorial-Tucanoan	**Mekens**	Galucio 2001	Brazil
Amerind, Chibchan-Paezan	**Ika**	Frank 1990	Colombia
Amerind, Andean	**Imbabura Quechua**	Cole 1982	Ecuador
Australian, Bunuban	**Gooniyandi**	McGregor 1990	Australia
Australian, Gunwinyguan	**Wardaman**	Merlan 1994	Australia
Australian, Pama-Nyungan	**Martuthunira**	Dench 1995	Australia
Austric, Austro-Tai, Austronesian	**Mangap-Mbula**	Bugenhagen 1995	Papua New Guinea
Austric, Austro-Tai, Austronesian	**Muna**	Van den Berg 1989	Indonesia
Austric, Austro-Tai, Daic	Dong		China
Austric, Austroasiatic	**Vietnamese**	Dinh-Hoa 1997	Vietnam
Austric, Miao-Yao	**Hmong Njua**	Harriehausen 1990	China
Basque (language isolate)	**Basque**	Saltarelli 1988	Spain
Burushaski (language isolate)	**Burushaski**	Berger 1998	Pakistan
Caucasian	**Lezgian**	Haspelmath 1993	Russia
Chukchi-Kamchatkan	**Chukchi**	Dunn 1999	Russia
Elamo-Dravidian	**Malayalam**	Asher & Kumari 1997	India
Eskimo-Aleut	**West Greenlandic**	Fortescue 1984	Greenland
Etruscan (language isolate)	Etruscan		
Gilyak (language isolate)	Gilyak		
Hurrian (language isolate)	Hurrian		
Indo-Hittite, Indo-European	**Dutch**		Netherlands Flanders
Indo-Hittite, Indo-Aryan	**Kashmiri**	Wali & Koul 1997	India

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[9] All information on the geographical distribution of the languages is taken from http://www.ethnologue.com

Indo-Pacific, East Papuan	**Lavukaleve**	Terrill 2003	Solomon Islands
Indo-Pacific, Sepik-Ramu	Alamblak		Papua New Guinea
Indo-Pacific, West-Papuan	Hatam		Papua New Guinea
Indo-Pacific, Torricelli	Bukiyip		Papua New Guinea
Indo-Pacific, Trans-New Guinea	**Amele**	Roberts 1987	Papua New Guinea
	Hua	Haiman 1980	Papua New Guinea
Kartvelian	**Georgian**	Hewitt 1995	Georgia
Ket (language isolate)	Ket		
Khoisan	**Nama Hottentot**	Hagman 1973	Namibia
Korean-Japanese-Ainu	**Korean**	Sohn 1994	South-Korea
Meroitic (language isolate)	Meroitic		
Nahali (language isolate)	Nahali		
Na-Dene	**Slave**	Rice 1989	Canada
Niger-Kordofanian, Niger-Congo, proper, Central Niger-Congo	**Supyire**	Carlson 1994	Mali
Niger-Kordofanian, Niger-Congo, proper, West-Atlantic	**Fongbe**	Lefebvre & Brousseau 2002	Benin
Niger-Kordofanian, Niger-Congo, Mande	**Vai**	Welmers 1976	Liberia
Niger-Kordofanian, Kordofanian			
Nilo-Saharan, East-Sudanic	**Lango**	Noonan 1981	Uganda
Nilo-Saharan, Central-Sudanic	**Ma'di**	Blackings & Fabb 2003	Uganda
Pidgins and Creoles	**Angolar Creole Portuguese**	Lorenzino 1998	São Tomé Island
Sino-Tibetan, Sinitic	**Cantonese**	Matthews & Yip 1994	China
Sino-Tibetan, Tibeto-Karen	**Tibetan**	Denwood 1999	China
Uralic-Yukaghir	**Kolyma Yukaghir**	Maslova 2003	Russia

Table 1: The sample languages (Ruhlen's classification)

From this ideal sample, however, a number of languages had to be excluded, which produced an actual sample of forty-one languages. As can be seen in table 1, in which

the languages investigated are boldfaced, the actual sample contains only two out of nine language isolates. Hardly anything is known about Nahali and the extinct isolates Etruscan and Meroitic (Rijkhoff 2002:8), and I did not find relevant data from Gilyak, Hurrian, Ket and Sumerian. However, I did not replace these isolates by other languages, so as not to distort the proportional representation of the phyla. Further, no Kordofanian language was available, nor did I find information on counterfactuality in Dong (Yaohong 1998). Again, these were not replaced to keep the proportions as required by the sampling method. Finally, I had bibliographic problems with the Indo-Pacific phylum. The size of the sample requires that this phylum is represented by five languages, coming from the East Papuan, Sepik-Ramu, West Papuan, Torricelli and Trans-New Guinea subphylum. However, I only had access to four useful Indo-Pacific grammars, three of which describe languages from the same subphylum, namely Tauya (McDonald 1990), Hua (Haiman 1980) and Amele (Roberts 1987). In the grammar Reesink (1999) wrote of the West-Papuan language Hatam, I did not find any information on counterfactual constructions. Since no data from the Sepik-Ramu, Torricelli and West Papuan subphylum were available and considering the cross-linguistic importance of the Indo-Pacific phylum, I decided not to leave out three languages, but only two, and have the Trans-New Guinea subphylum being overrepresented by both Hua and Amele. The ideal sample thus differs considerably from the actual sample.

In conclusion, I used an ideal diversity sample of fifty-two languages, which was reduced to forty-one due to lack of information on language isolates and some language groups. The languages were selected according to the sampling method developed by Rijkhoff et al. (1993) whose major concern is to avoid genetic bias. The procedure was shown to account for linguistic diversity both across and within groups of genetically related languages by requiring one member per phylum, and a proportional correlation between the number of languages representing a phylum and the linguistic diversity within that phylum. The latter is indicated by the Diversity Value which can be calculated for each phylum, subphylum, or sub-subphylum, depending on the size of the sample. This mechanical procedure thus always ensures a maximal genetic distance between the individual sample languages. In case there were no relevant data available

from a particular (sub)phylum, I tried to keep the representation of the (sub)phyla as proportional as possible.

2.2. Interpreting the grammars

Having selected the sample languages according to the method discussed above, I read through the grammars in search of counterfactual constructions. When investigating the grammatical coding of counterfactuality, I tried to determine which markers or combination of markers actually encodes counterfactual meaning. In addition, I also examined how the language in question codes tense and aspect, sometimes including mood marking as well, since I presumed that the other types of markers involved in combinations besides tense markers are of an aspectual or modal nature. Finally, I investigated how hypothetical conditional constructions are formed in order to compare them with counterfactual conditionals. All the information thus collected was brought together in language-specific reports, which are added in the appendix. In what follows, I will briefly discuss how I analysed the grammars.

As already mentioned above, I used the definition of counterfactuality as discussed in 1.1 to recognise counterfactual utterances. In identifying constructions as counterfactual, I paid attention to the translation the authors assigned to the utterances as well as to the semantic descriptions they provided. Consider the Wardaman example in (5).

(5) **yi**-nga-jejbarla-**rri**   wu-munburra-wu   WARDAMAN
     IRR-1SG/3SG-ask-**PST**   WU-money-DAT
     "I should have asked him for money." (Merlan 1994:188-430)

Merlan (1994:188) explicitly notes that past irrealis forms convey a counterfactual meaning, which is suggested by the translation as well. The two components of counterfactual meaning can be clearly recognised: the speaker's act of asking for money was desirable in the past (the modal element), but was in the end not actualised (the counterfactual element). However, the authors did not always provide semantic descriptions of the relevant constructions. Frank (1990) writing on Ika, for instance does

not describe the structure presented in (6) as counterfactual, but the translation does point to a counterfactual interpretation.

(6) Asigeʔ   Husiri   tsu-**un**   zor-**iza**   **neki**   IKA

Next.day   shotgun   see-**IMPF**   go-**RES**   **CNTR**

tsoutso   kunas   -eʔ   pari   -ri

fear   become   then   from   TOP

"The next day he would have gone to see the shotgun (booby-trap) but he got scared." (Frank 1990:63-222)

Here again, the two components of counterfactual meaning are clearly present: a person had the intention to go and see the shotgun, but in the end he did not go because he got scared. Frank (1990) thus does not give a semantic description of the counterfactual construction, but the translation he assigns to it leads us to interpret the utterance as counterfactual. I thus used the definition of counterfactuality formulated above to identify utterances as counterfactual, relying on the translation and/or semantic description given by the author in question.

Investigating how counterfactuality is encoded, I sometimes had to reinterpret the terminology used in the different grammars and find out which markers are relevant for the coding of counterfactuality. The problems one may encounter when studying a modal notion cross-linguistically were already touched upon by Lyons (1977). Very often we cannot be sure that, when one term, like 'irrealis', is used in relation to different languages, the mood or type of modality the term refers to has exactly the same function in those languages. Nor can we be sure that two different terms refer to different modal notions (Lyons 1977:847). While exploring the sample languages, I came across similar terms which do not refer to the same type of modality, and similar constructions which are referred to with different terminology. For instance, the grammatical label 'conditional' is used to refer to different types of constructions. In some languages, 'conditional' is used as a (near-)synonym of 'counterfactual', whereas in other cases, it is difficult to distinguish between a broad - usually epistemic - modal meaning and a conjunction function. The latter problem is found in Lezgian:

(7) **Eger** am   naq'   ata-**na-j-t'a**,   za   LEZGIAN

     if   she:ABS yesterday come-**AOR-PST-COND['if']** I:ERG

     am   vokzal.d-a   gürüsmis iji-**da-j**

     she:ABS station-INESS meeting   do-**FUT-PST**

     "If she had arrived yesterday, I would have met her at the station." (Haspelmath
     1993:396-1102)

Haspelmath (1993) notes that conditional protases – both hypothetical and
counterfactual - are marked for conditional mood and optionally introduced by the
conjunctions **eger** or **nagah**. Since I did not find the conditional mood in simple
utterances, but only in other subordination environments, such as concessive clauses,
(correlative) relative clauses and indirect questions (1993:345-427), I assume it has a
conjunction function (as a 'dependent mood'), rather than a modal meaning. Other
languages in which the conditional mood has a conjunction function are, for example,
Malayalam (Asher & Kumari 1997) and Korean (Sohn 1994). In these cases I always
added ['if'] to the relevant gloss.

      In Georgian (Hewitt 1995), by contrast, the category labelled 'conditional' has a
modal meaning. Consider (8).

(8) gusin   **rom** (?Ø-)e-c'vim-**a**[10],   sin   GEORGIAN

     yesterday **if**   (it)IOV-rain-?it(**PLUP**) at.home

     da-v-rc-eb-**od-i**

     PREV-I-remain-TS-**IMPF-INDIC (=COND)**

      "If it had rained yesterday, I would have stayed at home." (Hewitt 1995:586)

According to Hewitt (1995), the origin of the conditional mood forms goes back to the
future indicative, as it is formed by adding the endings of the imperfect indicative to the
base of the future indicative (1995:237-38). Moreover, as can be seen in the example
above, conditional mood marking does not occur in the protasis, but in the apodosis, and

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[10] In Hewitt (1995:586), the example is given like this, with a question mark in both the example and the
gloss. I could not find what it stands for, but it does certainly not represent a glottal stop.

it can further also be used in simple clauses with a modal meaning. I therefore assume that it has a broad modal meaning, rather than a conjunction function. Other languages in which the conditional has a modal meaning are, for instance, Nootka (Davidson 2002) and Turkish (Kornfilt 1997). Thus in different grammars, the term 'conditional' is used with a different meaning, and teasing apart these meanings was part of my interpretation.

The other problem mentioned, that linguists use different terms to refer to the same construction, was encountered as well. In languages encoding counterfactuality with only one marker, for instance, this marker is called differently across the relevant grammars. Dunn (1999), who writes on Chukchi, labels it 'conditional', as does Saeed (1999:91) who studied Somali. Further, Maslova (2003) and Haiman (1980) writing on Kolyma Yukaghir and Hua respectively both call it 'irrealis'. In all cases, however, the construction referred to was counterfactual in meaning. Apart from using similar terms for different constructions, the grammars consulted thus also often use different labels for similar grammatical elements.

Not only is the terminology used to describe modal notions not always very transparent, it is sometimes hard to decide which markers are relevant to the encoding of counterfactuality as well. In Slave, for instance, I found two alternating constructions of counterfactual apodoses, one described as involving a modal element combined with a past tense marker and another described as containing a future tense marker (Rice 1989). Both are shown below.

(9) ʔeyi ʔayeht'í **nidé** natsiowi gha   íle   **ilé   sóni**   SLAVE
     there 1SG.**was** **if**   3.occur COMP NEG **PST UC**
     "If I had been there, it might not have happened." (Rice 1989:1053-30)

(10) megháehnda íle   lo   **nidé** dahetla   **olí**   SLAVE
     1SG.see.3   NEG [EVID/DUB] **if**   3.is loose **FUT**
     "If I hadn't seen him, he would have gotten loose." (Rice 1989:1053-33)

Taking a closer look at the latter construction, I found the evidential/dubitative marker **ló (loo, lóó, lo, no, nó)** in the protasis in every case. Does this marker contribute to the

coding of counterfactuality? It is difficult to answer that question without actually consulting the author. An argument to regard this evidential/dubitative marker as relevant for counterfactual modality is that a similar construction can be found in Kolyma Yukaghir (Maslova 2003) and Korean (Sohn 1994). In the former, counterfactual constructions always have an inferential marker in the protasis, whose function is described as hearsay evidential. In Korean, a possible way to construe a counterfactual protasis is by using the past retrospective quotative, which is associated with evidential meaning as well. However, the presence of the evidential/dubitative marker in the Slave counterfactual protases might as well be a matter of coincidence (see section 4.3.1.6 for further discussion). Examining a particular language, the markers of counterfactuality can thus not always be indicated straightforwardly.

In conclusion, I used the definition of counterfactuality as discussed above to recognise counterfactual utterances in the grammars of my sample languages, relying on the semantic description of the construction in question and/or the translation provided by the author. While conducting my research I sometimes had to reinterpret the terminology used, distinguishing between different functions or meanings of one term on the one hand and linking different terms for one function or meaning on the other hand. Finally I showed that in some cases it is not self-evident to determine which markers constitute the coding of counterfactuality.

2.3. The reports

After having analysed the grammars, I arranged my findings in a report for each language, which can be found in the appendix. As already mentioned above, I examined not only counterfactual constructions, but also the way in which the language under investigation marks tense and aspect, and sometimes mood as well, and how hypothetical conditionals are construed to compare them with complex counterfactuals. These findings were formulated briefly in the sections of extra information on tense and aspect marking and on conditional marking respectively. The following discusses how the marking of counterfactuality was treated and how examples were taken from the grammars.

When investigating counterfactual constructions I made two major distinctions, viz. between simple and complex utterances and between those with past and those with present time reference. However, not all grammars provided enough data to be able to illustrate these four counterfactual subdomains. As to the first distinction, I found many more complex than simple constructions; as to the second distinction, I found many more utterances with past temporal reference than with present temporal reference. The four types of counterfactuals distinguished are illustrated below: (11) and (12) are simple constructions, i.e. containing only one verb phrase, with the former referring to a past situation and the latter to a present situation. (13) and (14), on the other hand, are complex constructions containing two verb phrases, one in the protasis or *if*-clause and one in the apodosis or *then*-clause. The structure in (13) has past temporal reference, whereas (14) has present temporal reference.

(11) simple: past

    ngóh **yinggoi yat-jóu**   gong béi léih teng   CANTONESE

    I   **should one-early** say to you hear

    "I should have told you much earlier." (Matthews & Yip 1994:235)

(12) simple:present

    ni-mits-maka-**skiya** se : mu-tamal   pero tesu ni-k-piya   PIPIL

    I-you-give-**COND** a   your-tortilla but no   I-it-have.

    "I would give you a tortilla but I do not have (any)." (Campbell 1985:136-5)

(13) complex: past

    =xaríróse-ku   **kà**   !'ãu **hãá**   **'oo**-ku   NAMA HOTTENTOT

    a little bit-M.PL **INDEF** wait **PERFV** **if**-M.PL

    kà   !xóó-hè   tama **hãá**

    INDEF catch-PASS NEG **PERFV**

    "If they had waited a bit, they would not have been caught." (Hagman 1973:238)

(14) complex: present

> **Yog**   koj yog Hmoob koj lub npe **yuav** yog Liaq   HMONG NJUA
>
> **COMP** 2SG be   Hmoob 2SG CL name **FUT** be   Lia
>
> "If you were a Hmoob, your name would be 'Lia'." (Harriehausen 1988:244-462)

For each language I arranged the markers of counterfactuality in tables and provided further notes on their morphology and semantics. Here again, the descriptions remained rather concise.

I further illustrated my findings with constructions taken from the grammars. In representing the examples I did not use the International Phonetic Association standard when the authors in question had used the IPA alphabet themselves, but represented only the glottal stop with the IPA symbol 'ʔ'. Further, I stuck to the Roman alphabet, but copied accents and tildes. Taking over the glosses of the sentences, I put grammatical information in upper case and lexical information in lower case. I also normalised various glosses to make them uniform throughout the study. The glosses 'CONDIT' or 'CONDITIONAL', for instance, both are rendered as 'COND' in the examples given in this study. Mostly, however, I kept the labels used by the author. All the labels used are summed up in a cumulative list immediately after the table of contents. I further adjusted some glosses where I thought the analysis mismatched the description of the author. In that case, I always put my own glosses between square brackets. In the Turkish example (15) given below, for instance, Kornfilt (1997) glossed the morpheme **acak** as a past tense marker, whereas in the discussion of tense marking, he describes it as a future tense marker (1997:340). I thus adjusted its gloss, as can be seen in (16).

(15) Hasan [kitab-i   san-a   ver-ir-se-m]   cok   TURKISH

>   Hasan book-ACC you-DAT give-AOR-COND-1SG   very
>
>   kiz-acak
>
>   angry-PST
>
>   "Hasan will get very angry if I give you the book." (Kornfilt 1997:74-304)

(16)   Hasan [kitab-i   san-a   ver-ir-se-m]   cok kiz-acak
       Hasan book-ACC you-DAT give-AOR-COND-1SG   very angry-[FUT]

Finally I sometimes glossed the examples myself when there were no glosses given. I also provided the Dutch examples and glossed them. Any time I glossed sentences myself or provided whole examples, I clearly indicated this by adding '(my glosses)' or '(my example)'. Malayalam may serve as an example.

(17)   maza peyt-**irunn-enkil**   naan puratte   Malayalam
       rain   fall-**PERF$_1$.PST-COND['if']**   I   outside
       poo-**k**-illa-ay-**irunnu**   (my glosses)
       go-**FUT**-NEG-[linking -ay-][**PERF$_1$.**]**PST**
       "If it had rained, I should not have gone out." (Asher & Kumari 1997:89-413)

In addition, the language-specific reports contain information on tense and aspect (and sometimes mood) marking, and on hypothetical conditional utterances. I investigated the markers coding counterfactuality, focusing on the role of past tense and its accompaniment by other types of markers, which, I presumed, possibly belong to a tense, aspect or mood category. Hypothetical conditional constructions were also studied in order to compare them to counterfactual conditionals. Most attention is paid, however, to counterfactual constructions. I systematically distinguished between simple and complex constructions on the one hand, and utterances with present and those with past temporal reference on the other hand.

2.4. Conclusion

This chapter discussed the methodology of my cross-linguistic investigation of counterfactuality, describing how I selected the sample, examined the grammars and wrote the language-specific reports. For this study, I used a diversity sample of fifty-two languages, selected on the basis of the sampling method designed by Rijkhoff et al (1993). This procedure guarantees that the representation of the phyla is proportional and the genetic distance between the individual languages maximal. My actual sample,

however, contains only forty-one languages because of lack of data for specific languages and language phyla. I thus searched through forty-one grammars, using the definition of counterfactuality discussed in the previous chapter to recognise counterfactual utterances. Because of lack of standardised terms, I usually had to examine critically the terminology used by the author and decide what markers are relevant for the grammatical coding of counterfactuality. I also investigated tense and aspect (and sometimes mood) marking and studied how hypothetical conditionals are construed in order to compare them to counterfactual conditionals. This information was all arranged in language-specific reports, which can be consulted as an appendix to this study. While writing these reports, I systematically distinguished between simple and complex constructions, and between counterfactuals referring to the past and those referring to the present.

Now that the theoretical framework has been sketched and the methodology of the investigation discussed, I will present the results of this study. Chapter 3 will treat the simple sentences, and the complex constructions will be dealt with in chapter 4. In each chapter I will make a distinction between utterances with past time reference and those with present time reference, and investigate the patterns of counterfactuality marking. As mentioned above, by studying the formal encoding of counterfactuality I will also try to determine how this coding can give us a better understanding of the semantic-pragmatic status of counterfactuality. If, for instance, the majority of languages examined only use past tense to express counterfactuality, then the data corroborate the 'past-as-unreal' hypothesis. If, on the other hand, in counterfactual constructions past tense markers are frequently accompanied by modal markers, then the quantity implicature analysis may be the most descriptively adequate and psychologically realistic account. Thus, the results will give us a better understanding of how counterfactual meaning is grammatically encoded and how it arises in semantic-pragmatic terms.

Chapter 3: Simple counterfactual constructions

As I mentioned in the previous chapter, in my investigation of counterfactuality I systematically distinguished between simple and complex constructions. This chapter is devoted to simple constructions only, and makes a secondary distinction between utterances referring to present time and those referring to past time. Present counterfactuals will be treated in 3.1, and past constructions will be dealt with in 3.2. In these sections I will present the grammatical patterns that occur cross-linguistically to encode counterfactuality. It should be noted, however, that not every grammar consulted provided examples of simple counterfactuals: in fact, only twenty-five out of forty-one did. In table 2 below I present the languages in the sample, indicating for which constructions I found data. Grey shading means that the construction in question, such as, for instance, a simple construction with present temporal reference, is found in a particular language. The discussion of the markers found in counterfactual constructions will show that the cross-linguistically most frequent type of marker is actually a modal element, very often accompanied by other types of markers. I will therefore devote section 3.3 to the nature of the modal element in counterfactual utterances. Finally, in 3.4 I will formulate some conclusions about how these findings can give an insight into the semantic-pragmatic status of counterfactuality.

Language	s/pr	s/pa	c/pr	c/pa	Language	s/pr	s/pa	c/pr	c/pa
Amele		■		■	Lezgian			■	■
Angolar			■	■	Ma'di		■		■
Basque		■		■	Malayalam		■		
Burushaski				■	Mangab Mbula				
Cantonese		■		■	Martuthunira		■		
Chukchi		■		■	Mekens				
Dutch	■	■		■	Muna				
Fongbe		■		■	Nama Hottentot				■
Georgian		■		■	Nootka		■		■
Gooniyandi		■		■	Pipil	■	■	■	■
Hdi		■		■	Slave		■		■
Hmong Njua			■	■	Somali		■	■	
Hua				■	Supyire				■
Ika		■			Tibetan				■
Imbabura Quechua		■			Tiriyó			■	■
Kashmiri		■		■	Turkish	■	■	■	■
Koasati				■	Vai			■	■
Kolyma Yukaghir		■		■	Vietnamese				■
Korean		■		■	Wardaman		■		■
Lango				■	West Greenlandic			■	■
Lavukaleve				■					

Table 2: The actual sample languages and the four counterfactual subdomains (s/pr: simple, present; s/pa: simple, past; c/pr: complex, present; c/pa: complex, past)

3.1. Simple counterfactuals with present temporal reference

Simple counterfactual constructions with present temporal reference are relatively rare in the sample: I found examples in only two of the grammars, viz. Pipil (Campbell 1985) and Turkish (Kornfilt 1997). In both languages, the construction uses only one single element to encode counterfactuality. Consider the examples:

(18)   ni-k-kwa-**skiya**   pero tesu ni-maya :na   PIPIL

     I-it-eat-**COND**   but   no   I-hunger

     "I would eat it but I'm not hungry." (Campbell 1985:136-6)

(19)   güzel   **ol-sa-**m   TURKISH

     beautiful   **be-COND**-1SG

     "If I were beautiful; if only I were beautiful" (Kornfilt 1997:369-1272)

Both languages use what is referred to as conditional mood to encode present counterfactuality. The Turkish example in (19) expresses a counterfactual wish referring to the present situation of the speaker. As I mentioned above (see section 2.2), the element referred to as conditional mood marker in Turkish should be regarded as having a modal meaning, rather than a conjunction function, since it not only occurs in hypothetical and counterfactual protases, but also in simple utterances (Kornfilt 1997:366-369). As it can also occur in non-counterfactual contexts, it does not mark counterfactuality directly. The same goes for Pipil (Campbell 1985), where the conditional marker -**skiya** also has a modal meaning, since it can occur in simple constructions and in non-counterfactual desiderative-intentional contexts[11] as well (1985:68). The conditional marker thus does not encode counterfactuality directly. Rather, the utterance in (18) is interpreted as counterfactual because of the presence of the adversative clause in addition to the modal element. In Dutch, a similar construction is possible as well, as is illustrated in (20).

(20)   Ik **zou**   het meteen   doe-n,   DUTCH

     I **FUT.AUX.PST**.1SG it   immediately do-INF

     maar ik heb   geen tijd

     but   I have.PRES.1SG no   time

     "I would do it immediately, but I don't have time." (my example)

---

[11] This desiderative-intentional use of the conditional mood marker may be due to Spanish influence, "since it is often translated into Spanish with the subjunctive and Spanish subjunctives can have both the 'conditional' and 'desiderative' senses" (Campbell 1985:68)

This example contains the form **zou**, which is often interpreted as an epistemic modal auxiliary expressing possibility and probability comparable to the English form 'would'. However, **zou** is also the simple past form of the future auxiliary **zullen**. In section 3.3.2 I will discuss the relation between modality and future tense in more detail. As in (18), the presence of the adversative clause is indispensable to force a counterfactual interpretation. Without the *but*-clause, the utterance in (20) would merely indicate a possible State of Affairs with a default interpretation that it will not be actualised. Thus, in Pipil and Dutch counterfactual meaning arises because of the presence of a modal element and an adversative clause. In Turkish, it is conditional mood marking occurring in simple sentences that points towards a present counterfactual wish interpretation. We can therefore conclude that the simple counterfactual constructions referring to the present that were discussed above all contain a modal marker with the default interpretation of the non-actualisation of the State of Affairs referred to. The presence of an adversative clause was shown to force a counterfactual interpretation.

3.2. Simple counterfactuals with past temporal reference

Counterfactual utterances with past temporal reference are far more frequent than present utterances in the sample: I found relevant data from twenty-five languages, in which various patterns of grammatical coding of counterfactuality can be recognised. A first significant observation is that some languages use only one marker which encodes counterfactual meaning directly, whereas the other languages all use a combination of markers, one of which is invariably modal. Only in one of the constructions in Nootka (Davidson 2002) is the modal element optional. In the other cases, the simple counterfactual construction obligatorily contains a modal marker, ranging from irrealis markers over conditional mood markers to future tense markers with a modal flavour. Table 3 below presents the various patterns of marking and shows the languages that use them. In the following sections, I will discuss each of these patterns in detail.

Direct counterfactual marking	Modal marker & imperfective aspect marker	Modal marker & perfect(ive) element	Modal marker & perfect(ive) element & past element	Modal marker & past element
Chukchi	Hdi	Kashmiri	Basque	Amele
Somali	Ika	Pipil	Dutch	Cantonese
Kolyma Yukaghir		Nootka	Georgian	Fongbe
Hua		Slave	Ma'di	Gooniyandi
			Malayalam	Imbabura Quechua
			Nootka	Korean
			Supyire	Martuthunira
				Slave
				Turkish
				Wardaman

Table 3: The patterns of marking in simple counterfactual constructions with past temporal reference

3.2.1. Direct counterfactual marking

In four of the twenty-five languages, simple counterfactual constructions use only one markerto encode counterfactuality. These markers may thus be said to code counterfactuality directly. In Chukchi (Dunn 1999), Somali (Saeed 1999), Kolyma Yukaghir (Maslova 2003) and Hua (Haiman 1980), one single marker can make a particular utterance counterfactual. This type of construction is illustrated below.

(21) dmi-ro-ka va-**sine**   HUA

        [**CTF**] (my gloss)

  "You would have given it to me and gone" (Haiman 1980:406)

(22) tudel pud-o-l   lebie-ge   modo-t[12]   KOLYMA YUKAGHIR

    he   upper-VR-ANR earth-LOC sit-SS:IMPF

---

[12] In this construction, the imperfective aspect marker is not essential to the encoding of counterfactuality (compare with other examples in Maslova 2003:171-72).

m +**l'e**-j

AFF-**IRR**+be-INTR:3SG

"He should have lived on the upper earth." (Maslova 2003:172-329b)

Haiman (1980:160) explicitly labels the suffix **–hine** (the form **–sine** in (21) occurs when the subject is first person plural or second person singular) as 'counterfactual', although it may also be regarded as a proximative[13]. Maslova (2003) terms the prefix **–et** in (22) 'irrealis'[14]. Thus, in these and the two other languages mentioned above, counterfactuality is coded solely by one marker. In the twenty-one other languages, however, we always find a combination of markers that together code counterfactual meaning. More precisely, we always find a modal marker which is invariably accompanied by another type of marker, such as an imperfective aspect marker, a perfect(ive) element, a past tense marker or a combination of these. These constructions will be dealt with below.

3.2.2. Modal marker and imperfective aspect marker

In two of the twenty-five languages, a modal marker is combined with at least an imperfective aspect marker to code counterfactuality. These two languages are Hdi (Frajzyngier 2002) and Ika (Frank 1990). In Ika, a third marker is also involved, viz. a contrary-to-expectation marker. Consider (23) and (24).

(23) **Má tà**   kúm-ày-ká   tá   nzà-kú   mà   túrú   HDI
     HYP IMPF want-PO-2SG OBJ stay-ABS PREP Tourou
     "You wanted to live in Tourou…" (but it did not happen) (Frajzyngier 2002:498-62)

---

[13] See Kuteva (1998) on the relation between counterfactuality, actions narrowly averted and proximatives

[14] The irrealis marker in Kolyma Yukaghir is used to express counterfactual situations, but, although less frequently, it can also be used to express potentiality or desirability (Maslova 2003:171-72). In the chapter on complex constructions, I will explain the difference between direct counterfactual marking and modal marking in a more systematic way (see section 4.2.1.1).

(24) Asigeʔ   Husiri   tsu-**un**   zor-**iza**   **neki**   IKA

      Next.day   shotgun   see-**IMPF**   go-**RES**   **CNTR**

      tsoutso kunas   -eʔ   pari -ri

      fear   become then from TOP

      "The next day he would have gone to see the shotgun (booby-trap) but he got

      scared." (Frank 1990:63-222)

In the Hdi example in (23), the modal marker is **má**, referred to as a hypothetical marker, and imperfective aspect is coded by **tà**. In the Ika sentence in (24), the modal element is the suffix **–iza**, which indicates what would happen under certain conditions and is glossed as RES (result). The suffix -**un** marks imperfective aspect and the particle **neki** is the contrary-to-expectation marker, which also occurs in interrogative clauses, indirect questions, and negative clauses (Frank 1990:79-89).

It should be noted that in both these languages tense marking is not obligatory. In Ika, tense is marked on the verb by deictic suffixes, which are in complementary distribution with aspect suffixes (Frank 1990:47-65). In Hdi, tense can be expressed by tense markers or may be inferred from the discourse configuration of events. The only past tense marker, however, is a referential past marker, referring to a specific time in the past (Frajzyngier 2002:335). Thus, the languages marking counterfactuality by means of a modal marker and at least an imperfective aspect marker do not mark tense obligatorily.

But why is the modal element accompanied by an imperfective aspect marker? James (1982) suggests that imperfective aspect and hypotheticality, which of course includes counterfactuality, have a semantic feature in common in that "they both indicate something which is in some way not fully realised" (1982:399). Imperfective aspect is usually regarded as indicating that an action or state is still going on in time and is not yet realised. The counterfactual component of counterfactual meaning indicates that the State of Affairs referred to did not eventuate and is thus not seen as an actual completed whole either. This semantic element of non-actualisation can thus be regarded as a link between imperfective aspect with counterfactuality.

As an alternative account, though not incompatible with James' non-completion hypothesis, Fleischman (1995) uses the discourse notion of backgrounding to explain

the cross-linguistic preference for imperfective aspect markers over perfective aspect markers in hypothetical environments. She cites Hopper (1981) who states that background information is not involved in "the asserting of events in the story line, but makes statements that are CONTINGENT [his emphasis] and dependent on story line events. Typically, therefore, one finds in backgrounding those forms associated with a lower degree of assertiveness and even forms designated as irrealis" (1981:215). It is commonly agreed on that in background statements imperfective aspect is cross-linguistically preferred over perfective aspect. So if imperfective aspect is indeed commonly used in discourse with a reduced degree of assertiveness, this would explain why languages use it in hypothetical statements as well, since these likewise do not assert the truth of their propositions (Fleischman 1995:539). Within the sample, however, the combination of a modal element with an imperfective aspect marker is only a marginal pattern of counterfactual marking.

3.2.3. Modal marker and perfect(ive) element

Whereas the pattern discussed above is only a minor construction type used to encode counterfactuality, the combination of a modal marker with a perfect or perfective element is found considerably more often. This combination was found in ten languages, the perfect(ive) element being a perfective aspect marker, a perfect participle or an inherent feature of a pluperfect tense. As Comrie (1978) notes, perfect aspect differs from perfective aspect in that the former expresses a temporal relation between a certain situation and another situation prior to that situation, whereas the latter merely sees a situation as a single complete whole, "without distinction of the various separate phases that make up that situation" (1978:16-18). Very often, however, actions marked for perfective aspect are regarded as completed and having continuous relevance, and thus get a perfect interpretation. Bearing this in mind and trying to keep the number of patterns of marking as small as possible, I decided to treat perfect and perfective aspect together.

In four out of ten languages the only, or at least one possible, construction used to encode counterfactuality contains only a modal and a perfect(ive) element. In the other constructions of those four languages and in the six other languages we find yet other

types of markers involved as well. What follows only discusses the languages encoding counterfactuality with a modal marker and a perfect(ive) marker. The constructions involving more types of markers will be treated in the next section.

The four languages in which the only - or at least one possible - construction is formed by the combination of a modal and a perfect(ive) element are Kashmiri (Wali & Koul 1997), Pipil (Campbell 1985), Nootka (Davidson 2002) and Slave (Rice 1989). Consider the following examples.

(25) tse   a:si-he:th   por-**mut**   akhba:r   Kashmiri
      you.ERG be-**COND**.3M.SG.2SG   read-**PFP**.3M.SG newspaper.3M.SG
      "You would have read the newspaper." (Wali & Koul 1997:238-5b)

(26) ahsi-**tu-skiya**   Pipil
      arrive-**PFP-COND** (my glosses)
      "She would have arrived." (Campbell 1985:68)

(27) wa'='al=we'ʔin Kʷatjat ʔaqi-s**=qu:**=s   naq-(y)uʔal   Nootka
      say=TEMP=QT   Kwatyat what–do**=COND**=1SG see–perceive.**PERFV**
      "Kwatyat said, "How could I have seen him?"" (Davidson 2002:278-395)

(28) dú   náhkale ʔeghálaiidá   **woléni**   Slave
      now morning 1SG.work**ed FUT**
      "I should have worked this morning" (Rice 1989:419-134)

In the Kashimiri example in (25), counterfactuality is coded by a conditional mood marker combined with the perfect participle of the main verb (Wali & Koul 1997:238). In the Pipil utterance in (26), we find a conditional mood marker (**-skiya**) and a perfect participle marker (-**tu**) as well (Campbell 1985:68). In the Nootka construction in (27), the modal element is also a conditional mood marker (**=qu:**), but the perfective element is a perfective aspect marker (Davidson 2002:217-20). In these languages, the conditional mood marker clearly has a modal meaning rather than a conjunction function, as it occurs in simple utterances. In Slave, finally, counterfactual meaning is

encoded by the future tense marker **woléni**, combined with a perfective 'mode' marker, 'mode' being an intermediate category between tense, aspect and mood. Rice (1989: 485) notes that it marks completed actions. As can be seen in (28), the perfective mode is glossed as the simple past form of the verb on which it is marked. Both Nootka and Slave also have alternative constructions to mark counterfactuality, which involve the combination of a modal element with at least a past tense marker. The construction type treated above, however, only contains a modal element and a perfect(ive) element, and is found in four out of the twenty-five relevant sample languages.

3.2.4. Modal marker combined with perfect(ive) and past element

As I mentioned above, the majority of the languages that use a modal marker and a perfect(ive) element to express counterfactuality combine these with yet another type of marker. The alternative construction in Nootka and six other languages all combine a modal and a perfect(ive) element with a past tense marker and sometimes yet other types of markers. It is important to note in this respect that the pluperfect tense is regarded as a combination of past tense and perfect aspect, as it is used to temporally locate an event anterior to a past reference point (Dahl 1985:144-46). In Basque (Saltarelli 1988), Ma'di (Blackings & Fabb 2003), Georgian (Hewitt 1995) and one construction in Dutch[15], we find a combination of a modal, perfect(ive) and past element, the latter two having a modal auxiliary and a pluperfect tense. The Basque construction is illustrated in (29).

(29) liburu-ak   erama-**n**   BASQUE
     book-PL.ABS   carry-**PFP**
     n-i-eza-zk-io-**ke-en**,
     1SG.ERG-PST-AUX2(SUB)-3AP-3SG.DAT-**POT-PST**
     baina ez   n-u-en   etxe-tik
     but   not 1SG.ERG-(PST-ABS)-AUX2-PST   house-SG.ABL

---

[15] The term 'pluperfect' used in the traditional grammars suggests that it is a unitary category, but in fact it may be split up in a past tense element (marked on the auxiliary) and a perfect element (the perfect participle of the main verb).

atera-tze-ko   gogo-rik

leave-NOML-DST   urge-PTV

"I could have taken the books to her/him, but I did not feel like leaving the house." (Saltarelli 1988:235-1025a)

Here we find the modal marker **-ke** and the past tense marker **-en** suffixed to the auxiliary and the main verb in perfect participle form, which gives rise to a counterfactual meaning. The Ma'di construction is somewhat more complicated. Consider (30).

(30) **téè**   **dì**   m´-e-ngwí   **rá**   MA'DI
      earlier today this   1SG-VE-return **AFF**
      "I could certainly have come back by now." (Blackings & Fabb 2003:491-90)

In (30), the main verb is an uninflected verb, which is a past form. The term 'uninflected' may sound a bit confusing here, since the verb is glossed as being inflected for first person subject, but it is nevertheless the convention used by the authors. When combined with such an uninflected verb form, the particle **rá**, which is a marker of certainty and glossed as AFF (affirmative), forces a perfective interpretation of the utterance, indicating the completion of an eventuality (Blackings & Fabb 2003:451-459). At the same time it also expresses the modal meaning of certainty. Further, the sentence contains the complex adverbial **téè dì**, which shifts the temporal reference of the utterance to the past and also adds a modal meaning (Blackings & Fabb 2003: 491). The past meaning is thus expressed by the uninflected verb form and the tense shifting adverbial, while the modal meaning is coded by the particle of certainty and the adverbial again. Finally, the perfective meaning is expressed by the particle **rá** in combination with the uninflected verb form. The Ma'di construction can thus be described as the 'modal combined with perfect(ive) and past element' pattern as well, although less straightforwardly than, for instance, Basque.

    In some languages, however, the three types of markers are accompanied by yet another type of marker. For Dutch I refer to example (53) in section 3.3.2, where apart from a modal, perfect and past marker, a future element is found as well. In Malayalam

(Asher & Kumari 1997) the fourth marker is a nominalising suffix, as can be seen in (31). In Nootka (Davidson 2002) the additional marker is an indicative mood marker, as is shown in (32), and in Supyire (Carlson 1994) the main verb occurs in the subjunctive complement of the modal verb, as shown in (33).

(31)   naan pook-**eent**-**ata**-ay-**irunnu**   MALAYALAM

      I   go-**DEB**-**NOML**-[linking -ay-] **[PERF$_1$.]PST**

      (pakse poo-y-i-[i]lla)   (my glosses)

      but go-[linking -y-]-PST-NEG

      "I should have gone (but didn't go)." (Asher & Kumari 1997:307-1540)

(32)   hayu-i:yip**=a:'h=(m)it=(m)a'**=ʔic   NOOTKA

      ten-obtain.**PERFV=IRR=PST=INDIC**=2SG

      lisal   ʔis   mucmuhaq

      blanket and bearskin

      "You would have got the ten blankets and the bearskin." (Davidson 2002:315-472b)

(33)   U **mpyi à   yaa** u Ø   kare ná ceèni   SUPYIRE

      He **PST   PERF ought** he **SUBJ** go   with woman.DEF

      ì   Bàmàkwo e

      with Bamako   to

      "He ought to have gone with the woman to Bamako." (Carlson 1994:426-11b)

It could be questioned, however, to what extent these additional markers actually serve to encode counterfactual meaning, and if their presence should not be regarded as syntactic requirements of the 'actual' markers of counterfactuality. In Supyire, for instance, the modal auxiliary **yaa** expressing deontic modality obligatorily takes a subjunctive complement (Carlson 1994:425-426). The main verb is thus always marked for subjunctive mood, but only because it functions as a complement of the modal auxiliary **yaa**. The subjunctive mood marker may therefore be regarded as a non-essential marker of counterfactuality, as it is dependent on the syntactic properties of the

modal auxiliary in question. The additional markers in Malayalam and Nootka may likewise be considered as non-essential markers of counterfactuality, since they are syntactically required by the 'actual' markers as well. It may therefore be concluded that Supyire, Malayalam and Nootka use the pattern of Basque, Georgian and the Dutch construction with the pluperfect tense, where the modal element is accompanied by a perfect(ive) and a past tense marker.

The pattern of a modal marker combined with a perfect(ive) element can thus be regarded as a rather important one, used by ten out of twenty-five languages. Four of them can encode counterfactuality solely by a modal element in combination with a perfect(ive) element, as was shown in the previous section. Six languages - and Nootka again - require at least a past tense marker in addition. The following section discusses this combination of a modal element with a past tense marker and thus partly overlaps with the discussion above.

3.2.5. Modal marker and past element

The cross-linguistically most frequent pattern used to encode counterfactuality is the combination of a modal element with at least a past element. In seventeen out of twenty-five languages a modal element accompanied by a past element constitutes the only or one of the counterfactual constructions. As discussed above, seven languages may use the combination of a modal marker with a past and perfect(ive) element to express counterfactuality, namely Basque, Dutch, Georgian, Ma'di, Malayalam, Nootka and Supyire. The construction of Dutch illustrated by (53) in section 3.3.2 contains a future and perfect(ive) element in addition to this combination of past and modal element. The other ten languages all code counterfactuality by means of a modal element combined with only a past element, as does an alternative construction in Ma'di. It should be noted, however, that in Korean (Sohn 1994) a past tense suffix is added to both the auxiliary and the main verb; in all other languages, only one past element is involved. Since the combination of past and modal elements with other types of markers has already been discussed above, the following discussion only deals with the pattern of a modal marker combined with a past element.

As we have seen, the modal element can differ substantially cross-linguistically, occurring, for instance, as a modal auxiliary, an irrealis affix, a conditional mood marker with modal meaning rather than a conjunction function, or a future tense marker with a modal flavour (see section 3.3.2 for further discussion). Likewise, the past element is not always a clearly identifiable past tense marker. In Martuthunira (Dench 1995), for example, only a past context is needed in order for an expression with a counterfactual or an unrealised mood marker to be interpreted as a counterfactual utterance. An illustration is given in (34).

(34) Ngayu   ngalarri-**lha**-rru   warnu.   kuliyanpa-**yaangu**   MARTUTHUNIRA
      1SG.NOM forget-**PST**-NOW   ASSERT   think-**UNREAL**

      kalika-a-lwa   kalyarran-ta   nyina-wayara-a.
      one-ACC-ID   branch-LOC   sit-HAB-ACC

      "I truly forgot. [I] ought to have thought of that one that always sits on a branch, [but I didn't]." (Dench 1995:152-6.41)

In (34) the counterfactual clause itself does not contain a past tense marker, but the past tense of 'forgot' in the previous clause establishes temporal reference to the past. It should be noted that in Martuthunira verbs marked for unrealised mood may have past, present or future temporal reference (Dench 1995:150-51). Only in combination with a past context, such a form encodes counterfactual meaning. The alternative construction in this language, which uses a counterfactual mood marker, also seems to require a past context to acquire counterfactual meaning, as counterfactuals may also refer to the future. In these cases, the speaker predicts that the event described will not happen unless current circumstances change in some way. The context makes clear that time reference is to the future (Dench 1995:150-51). In Martuthunira, the past element is thus not necessarily present in the counterfactual utterance, but it has to be derivable from the context.

In other languages, it is adverbials that establish past temporal reference. Cantonese (Matthews & Yip 1994), for instance, lacks tense distinctions marked on the verb, and often uses temporal adverbs to express temporal relations. Counterfactual

utterances thus always contain an adverbial meaning 'originally' or 'much earlier', together with a modal auxiliary, as shown below.

(35) léih **búnlòih   hóyíh** sanchíng ni   fahn gung ge   CANTONESE
      you   **originally can**   apply   this CL   job   PRT
      "You could have applied for this job." (Matthews & Yip 1994:231)

(36) ngóh **yinggoi yat-jóu**   gong béi léih teng   CANTONESE
      I   **should one-early** say to   you hear
      "I should have told you much earlier." (Matthews & Yip 1994:235)

As was already discussed above, also Ma'di (Blackings & Fabb 2003) uses adverbials, which, more specifically, shift the temporal reference of the utterance to the past and sometimes add a modal force. An example is given in (37).

(37) **téè   dì** ní `mu ná-ni   MA'DI
      earlier today this 2SG **N-**go that-like
      "You should have gone like that." (Blackings & Fabb 2003:491-91)

In this sentence the main verb is an inflected (i.e. non-past) verb form, but the complex adverbial **téè dì** shifts the time reference to the past and adds a modal force, inducing a counterfactual interpretation.

In six cases, the grammars treat the past elements as past tense markers, usually suffixed to the verb. As I already mentioned, in Korean (Sohn 1994) both the auxiliary and the main verb are suffixed by the past tense marker, as can be seen in (38). Four other languages use a past tense suffix as well, viz. Imbabura Quechua (Cole 1982), Wardaman (Merlan 1994), Amele (Roberts 1987) and the four possible constructions of Turkish (Kornfilt 1997). Examples are given below.

(38) ne-nun ecey   ttena-**ss-eya**   **hay-ss**-ta   KOREAN
      you-TC yesterday leave-**PST-DEB** **do-PST**-DC
      "You should have left yesterday." (Sohn 1994:347-217b)

(39)   shamu-n-**man**   ka-rka   IMBABURA QUECHUA

        come-3-**COND** be-PST.3

        "They would have come." (Cole 1982:156-625f)

(40)   **yi**-nga-jejbarla-**rri**   wu-munburra-wu   WARDAMAN

        IRR-1SG/3SG-ask-**PST**   WU-money-DAT

        "I should have asked him for money." (Merlan 1994:188-430)

(41)   ija   nue-**em**   to-**u**-b   AMELE

        1SG go-1SG.**RM.PST** 1SG-**CTF**-3SG

        "I would like to have gone." (Roberts 1987:264-792)

(42)   oku-**ya**-y-**di-**niz!   TURKISH

        read-**OPT**-COP-**PST**-2PL

        "You should have read!" (Kornfilt 1997:372-1289)

Note that in the Imbabura Quechua utterance in (39) the past tense suffix is attached to the auxiliary 'be' in order to form the past conditional (Cole 1982:154-55). The conditional mood marker -**man** has a modal meaning. In the Wardaman example in (40) we find both the irrealis mood prefix **yi**- and the past tense suffix -**rri** attached to the verb. The construction in Amele shown in (41) has an impersonal verb marked for contrafactual mood whereas its object complement is marked for remote past tense. As the contrafactual mood marker also occurs in non-counterfactual deontic contexts, for example in utterances such as *you should give him back his axe*, it does not encode counterfactuality directly, but has a (deontic) modal meaning (Roberts 1987:270). In the structure in (41), it is the object complement of the impersonal verb that is marked for remote past tense. In another example found in the grammar, however, past tense is found only in the adversative clause (Roberts 1987:270 example (520)). Finally, the Turkish sentence in (42) is marked for optative mood by the suffix -**ya** and for past tense by the suffix -**di**. In the five languages illustrated above, counterfactual utterances thus always contain a modal marker accompanied by one or more past tense suffixes.

In Slave (Rice 1989), the past tense marker is not a suffix but a free morpheme expressing unrealised past. This construction also involves an optative marker on the verb. The other possible counterfactual construction in Slave has already been discussed in section 3.2.3 (example (28)), and contains a future tense marker functioning as a modal element combined with a perfective 'mode' marker on the verb. The former construction is illustrated below.

(43) ʔeyi ʔaoht'í   **áló**   SLAVE
      there 1SG.**OPT**.go **PST.UNREAL**
      "I should have been there." (Rice 1989:414-88)

Here the optative marker modalises the construction and the unrealised past tense marker **áló** induces a counterfactual interpretation.

Finally, there are two languages that also fit into this 'modal with past' pattern, but not as straightforwardly as the ones discussed above. Gooniyandi (McGregor 1990), for instance, uses a modal marker combined with an irrealis tense marker, as shown below.

(44) ward-**wi**+jadd+i-**rni**   GOONIYANDI
      go-**IRR**+(1U)NOM+i-**POT**
      "We could have gone" (McGregor 1990:221)

(45) ward-**ja-ala**-nganggi   nyinlimi   GOONIYANDI
      bring-**SUBJ-IRR**+(1SG)NOM+ACC-on:you I:forgot
      "I could (and should) have brought you food, but I forgot to."(McGregor 1990:549-6.302)

McGregor (1990) notes that the irrealis tense cannot occur on its own, but always has to be accompanied by the potential mode (as in (44)) or the subjunctive mood (as in (45)). "In both cases it specifies the unreal status of the situation at a past time" (1990:524). As in these combinations, the meaning of unreality is encoded by the potential mode marker or the subjunctive mood marker, past tense meaning may be assigned to the

irrealis tense suffix. As suggested by Verstraete (2004), the irrealis tense marker may thus be regarded as a past tense marker. Further, in Fongbe (Lefebvre & Brousseau 2002) the past element is considered to be a relative past (i.e. anteriority) marker rather than a past tense marker. The modal element is a future tense marker which the author regards as an irrealis mood marker. The utterance containing these two markers be may interpreted as either hypothetical or counterfactual, as is reflected in the two possible translations given by the authors.

(46) Bàyí **kò**   **ná**   dà   wò   FONGBE
      Bayi **ANT DEF.FUT** prepare dough
      "Bayi would prepare dough."
      "Bayi would have prepared dough." (Lefebvre & Brousseau 2002 :104-50)

Although Gooniyandi and Fongbe thus use a past element somewhat differently from the ones discussed above, it may be reasonable to argue that they use the 'modal with past' pattern to encode counterfactuality in simple constructions. With seventeen out of twenty-five languages showing the combination of a modal element with at least a past element, this pattern may be considered as the most important one from a cross-linguistic perspective.

3.2.6. Conclusion

In the discussion above, I distinguished five patterns used to form simple counterfactual constructions referring to the past. In one of these patterns, only one single marker is used, which encodes counterfactuality directly (see section 3.2.1). This type of construction is found in four of the twenty-five languages. In the twenty-one other languages, however, we invariably found a combination of markers that together encode counterfactual meaning. One of these markers is always of a modal type (see section 3.3 for further discussion). In two languages, a modal element is combined with an imperfective aspect marker. In four languages, the only - or one possible - counterfactual construction uses a modal element in combination with a perfect(ive) element only. In most languages, however, the marker that combines with a modal

element is a past tense marker. In seven languages, the modal and past marker are further accompanied by a perfect(ive) element, whereas in ten languages the modal element is combined with a past tense marker only. Table 4 below repeats table 3, and summarises the patterns of marking found in simple counterfactual constructions referring to a past situation.

Direct counterfactual marking	Modal marker & imperfective aspect marker	Modal marker & perfect(ive) element	Modal marker & perfect(ive) element & past element	Modal marker & past element
Chukchi	Hdi	Kashmiri	Basque	Amele
Somali	Ika	Pipil	Dutch	Cantonese
Kolyma Yukaghir		Nootka	Georgian	Fongbe
Hua		Slave	Ma'di	Gooniyandi
			Malayalam	Imbabura Quechua
			Nootka	Korean
			Supyire	Martuthunira
				Slave
				Turkish
				Wardaman

Table 4: The patterns of marking in simple counterfactual constructions with past temporal reference

3.3. The nature of the modal element

As can be seen in table 4 above, I distinguished five patterns in the sample to express counterfactuality in simple sentences. One type of construction involved only one marker, which was shown to encode counterfactual meaning directly (see section 3.2.1). The four other patterns, however, contain a combination of markers, one of which is invariably of a modal type. In this section, I will investigate the nature of this modal marker in some more detail. In 3.3.1 I will discuss the types of modality expressed in the constructions examined and their relation to counterfactuality, and in 3.3.2 I will focus on the relation between modality and future tense.

3.3.1. Types of modality

Many linguists writing on modality have proposed a definition of the term and have distinguished a number of basic semantic categories within the modal domain. Van der Auwera & Plungian (1998), for instance, use the term modality for "those semantic domains that involve possibility and necessity as paradigmatic variants, that is, as constituting a paradigm with two possible choices, possibility and necessity" (1998:80) and distinguish four domains. A first is called 'participant-internal modality' and refers to "a kind of possibility or necessity internal to a participant engaged in the State of Affairs" (1998:80). In the case of possibility, what is referred to is the participant's ability to carry out a SoA, and in the case of necessity, it is the participant's internal need to do so (1998:80). A second domain is called 'participant-external modality' and refers to "circumstances that are external to the participant, if any, engaged in the State of Affairs and that make this State of Affairs either possible or necessary" (1998:80). A third domain is that of 'deontic modality', which identifies "the enabling or compelling circumstances external to the participant as some person(s), often the speaker, and/or some social or ethical norm(s) permitting or obliging the participant to engage in the State of Affairs" (1998:81). As such, it is a subdomain of participant-external modality. The last domain is that of 'epistemic modality' and refers to "a judgement of the speaker: a proposition is judged to be uncertain or probable relative to some judgement(s)" (1998:81). Further, they make a subgrouping with participant-internal and participant-external modality together making up non-epistemic modality.

Based on the distinctions drawn by Van der Auwera & Plungian (1998), Verstraete (2003) distinguishes two basic semantic categories within the modal domain, viz. a proposition-external category encoding the speaker's judgment (i.e. epistemic and deontic modality) and a proposition-internal category encoding the properties of the participant(s) engaged in a SoA, relating to the actualisation of that SoA (i.e. dynamic modality (Palmer 1986, 2001)). As to the first category, a further distinction can be made: the speaker's judgement may relate to the plausibility of the proposition (i.e. epistemic modality) or to the desirability of the SoA referred to (i.e. deontic modality). As to the second semantic category, which may be identified with the notion of 'participant-internal modality' introduced above, Verstraete (2003) distinguishes between the participant's ability to carry out the SoA, and the participant's willingness

or desire to realise the SoA. Henceforth, the latter will be referred to as 'desiderative-intentional modality'. In discussing the modal notions involved in counterfactuality, I will use the terms presented in this paragraph.

According to the definition of counterfactuality proposed in chapter 1 (section 1.2), counterfactual utterances indicate that a certain SoA was potential, but did not eventuate. Counterfactuality was thus shown to have two semantic components, viz. a modal one (potential) and a counterfactual one (non-occurrence). When investigating counterfactuality cross-linguistically, I found that the modal element of meaning in counterfactual constructions may belong to three different modal domains. More precisely, I found that the modal element may be epistemic, deontic, or desiderative-intentional. In what follows I will give examples of the three types of modality involved.

Very often in counterfactual utterances, the speaker states that a certain State of Affairs was possible or plausible, but was not actualised. In these cases, the modal element of meaning is epistemic. In (47), for instance, the speaker merely hypothesises that the man might have hit his sister, but they also know he did not. McGregor notes that "there need be no evidence backing up this hypothesis - though presumably it will normally be something which is not logically impossibly" (1990:548). In other words, it was plausible that the man hit his sister, but actually he did not.

(47)   yoowooloo-ngga marni-wa gard-**ja**-yooni   GOONIYANDI
       man-ERG   sister-his hit-**SUBJ-IRR**+[CL]
       "The man might have hit his sister (though I know he didn't)"   (McGregor
       1990:548-6.300)

Further, there are also counterfactual utterances where the modal element belongs to the deontic domain. In those cases, the speaker judges that a SoA was desirable, but did not eventuate. In (48), for example, the speaker states that it was desirable that the hearer should do it on time, but in the end they did not.

(48)   dro-ze   **u+nd+a** ga-g-e-k'et-eb-**in**-a   GEORGIAN
       time-on **should**   PREV-you-IOV-do-TS-**PLUP**-it

"You should have done it on time." (Hewitt 1995:267-68)

Finally, I found a number of counterfactual sentences expressing that a participant intending to realise a certain SoA actually did not do so. In these cases, the modal element is of a desiderative-intentional nature, as illustrated by (49).

(49) ni-mits-maka-**skiya** se : mu-tamal   pero tesu ni-k-piya   PIPIL

        I-you-give-**COND** a   your-tortilla but   no   I-it-have.

        "I would give you a tortilla but I do not have (any)." (Campbell 1985:136-5)

In this example with present temporal reference, the speaker wants to or has the intention to give the hearer a tortilla, but does not do so because they do not have any. The action of giving a tortilla thus is intended, but not realised. It should be noted that even within one language, the modal component may belong to different semantic domains. Gooniyandi (McGregor 1990), for instance, also has simple counterfactual constructions in which the modal element is deontic, in addition to the epistemic ones illustrated in (47). In (50), the speaker estimates that it was desirable to throw out the meat, but in the end did not.

(50) jamoondoo waj**gila**di**rni**   maa   GOONIYANDI

        other:day   I:might:have:thrown:it meat

        "I should have thrown the meat out the other day." (McGregor 1990:534-6.256)

We may thus conclude that the modal component in counterfactual utterances is systematically related to epistemic, deontic and desiderative-intentional types of modality, cross-linguistically as well as language-internally. This finding will be taken up again in 3.4 as an argument for the non-basic nature of counterfactual meaning.

3.3.2. Modality and future tense

As was noted in the discussion of the markers of counterfactuality above, a number of languages use future tense markers where other languages use modal markers. It may

therefore be interesting to investigate the relation between modality and future tense in more detail. As Dahl (1985) notes, the relation between modality and future tense has been widely commented on in the linguistic literature. Aristotle already noted that the future differs epistemologically - and maybe also ontologically - from the past and present in that it is inherently unknowable and thus cannot be perceived or remembered. "Normally, when we talk about the future, we are either talking about someone's plans, intentions or obligations, or we are making a prediction or extrapolation from the present state of the world. As a direct consequence, a sentence which refers to the future will almost always differ also modally from a sentence with non-future time reference." (Dahl 1985:103). Therefore, the distinction between tense and modality is not that clear-cut when it comes to the future.

The blurred distinction between tense and modality with regard to the future may be illustrated by counterfactual constructions in Fongbe (Lefebvre & Brousseau 2002) and Slave (Rice 1989), where future tense markers actually function as modal markers. Consider (51) and (52), which were already given in (46) and (28) above.

(51) Bàyí **kò   ná**   dà   wò   FONGBE
     Bayi **ANT DEF.FUT** prepare dough
     "Bayi would prepare dough." HYP
     "Bayi would have prepared dough." CTF (Lefebvre & Brousseau 2002:104-50)

(52) dú   náhkale ʔeghálaiidá **woléni**   SLAVE
     now   morning 1SG.work**ed FUT**
     "I should have worked this morning" (Rice 1989:419-134)

In Fongbe, the definite future marker **ná** is regarded by the authors as an irrealis mood marker, which is combined with the anteriority marker **kò** in (51) to encode counterfactuality (Lefebvre & Brousseau 2002:91). In Slave, the particle **woléni** encodes future mode. It is an optative verb form that represents future intentionality, and combined with a perfective verb as in (52), it indicates unrealised past intention with some notion of obligation involved (Rice 1989:418-19). In these examples, the future markers obviously have a modal flavour.

In one language, a counterfactual construction is found which, apart from a pure modal element, also contains a future element which arguably has some modal meaning as well. One could say that this construction contains two modal markers. The language in question is Dutch, where one of the counterfactual constructions contains both a modal and a future element, combined with a past and perfect element. This type of construction is illustrated by (53).

(53) Jij **zou**   **hebb-en**   **moet-en** kom-en   DUTCH
      You **FUT.AUX.PST**.2SG **have-INF** **must-INF** come-INF
      "You should have come." (my example)

In (53) we have the modal auxiliary **moeten** 'must' and the future perfect in the past formed by **zou hebben** in combination with the infinitive of the modal auxiliary[16]. As already mentioned above, the form **zou** has often a modal meaning, but it is nevertheless the past tense form of **zullen**, the auxiliary used to form future tense forms. We thus find a future element with a modal flavour in this construction, apart from the clearly modal auxiliary.

In conclusion, the modal element that is found in the marking of counterfactuality in most languages was shown to be related to epistemic, deontic and desiderative-intentional types of modality, both across and within languages. Further, the relation between modality and future tense was investigated, as some languages use future tense markers as modal elements. In Fongbe and Slave, future elements were shown to serve as modal markers, and in Dutch a future element is used in addition to a pure modal marker and yet other types of markers. This latter construction may thus constitute a sixth pattern used to code counterfactuality, namely one containing at least two modal elements. In the sample, however, this is only a marginal pattern, and as the

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[16] Normally the future perfect in the past is formed by a periphrastic construction consisting of the simple past form of the future tense auxiliary (**zullen** ('will'), and the perfect infinitive of the main verb. The perfect infinitive of a verb consists of the perfect participle of that verb and the infinitive of the auxiliary that the verb takes to form its perfect tenses. If the verb is an auxiliary, however, the perfect infinitive is not formed with the perfect participle, but with the infinitive immediately preceding the infinitive of the main verb.

construction also contains a past tense marker and a perfect element, I would argue to consider it as a subpattern of the 'modal combined with past and perfect(ive)' pattern.

3.4. The semantic-pragmatic status of counterfactuality

In the discussion above, we distinguished five patterns used cross-linguistically to encode counterfactuality in simple utterances. It was noted that four of these patterns involve at least a modal element. The pattern combining a modal marker with an imperfective aspect marker was shown to be of only minor cross-linguistic importance, as it is used in only two languages in the sample. The construction type that combines a modal marker with only a perfect(ive) element is found in four languages. The pattern containing a modal marker combined with both a past tense marker and a perfect(ive) element is used in seven languages, and the pattern that combines a modal marker with only a past element is found in ten languages. One pattern, however, uses only one relevant marker, which encodes counterfactual meaning directly. This type of construction is found in four of the twenty-five languages, and is thus as frequent as the pattern involving a modal marker combined with only a perfect(ive) element. Table 5 below shows the types of markers which each of the twenty-five languages uses in simple counterfactual constructions. Grey shading means that the marker in question is used in a particular language. In what follows, I will discuss how the findings on the patterns of marking can tell us something about how counterfactual meaning arises, referring back to the hypothesis in the literature presented in chapter 1.

Language	Direct ctf marking	Imperfective aspect marker	Modal marker	Past tense marker	Perfect or perfective aspect marker	Future element with modal flavour
Amele			■	■		
Basque			■	■	■	
Cantonese			■	■		
Chukchi	■					
Dutch			■	■	■	
			■	■	■	■
Fongbe			■	■		
Georgian			■	■	■	
Gooniyandi			■	■		
Hdi		■	■			
Hua	■					
Ika		(& contrary-to-expectation marker)				
Imbabura Quechua			■	■		
Kashmiri			■		■	
Kolyma Yukaghir	■					
Korean			(two past tense markers)			
Ma'di			■	■		
			■	■	■	
Malayalam			■	■	■	
Martuthunira			■	■		
Nootka			■		■	
			(optional modal element)			
Pipil (present)			■			
(past)			■		■	
Slave			■		■	
			■	■		
Somali	■					
Supyire			■	■	■	
Turkish (present)			■			
(past)			■	■		
Wardaman			■	■		

Table 5: The markers of counterfactuality in simple constructions

First of all, the results of my investigation clearly refute the idea of past tense as marker of hypotheticality, associated with James (1982) and formulated as the 'past-as-unreal' hypothesis by Fleischman (1989). In no single language investigated did I find only a past tense marker to express hypotheticality or even counterfactuality. As Dahl (1997) already suggested, the temporal metaphor is thus untenable. Indeed, in the data surveyed past tense markers are always accompanied by modal markers and sometimes by perfect(ive) or future elements as well, but hypothetical utterances - and counterfactual utterances a fortiori - do not necessarily contain past elements. Although constructions with modal and past elements occur in the majority of the languages examined, other types of constructions used to encode counterfactuality do not always contain a past tense marker. Leaving aside the case of direct counterfactual marking, which will be dealt with below, the only marker that was shown to be universally recurrent in counterfactual expressions was a modal one. It is thus highly improbable that counterfactual meaning arises as a metaphorical extension of the past meaning in terms of remoteness.

The finding that counterfactuality is usually marked by a combination of elements that have other meanings in other contexts seems to suggest that counterfactual meaning is not basic, but rather arises as a conversational implicature triggered by the combination of the relevant markers. It is important to note that, apart from the cases using direct counterfactual marking, all languages contain a modal element. Further, in the majority of languages, this modal element is combined with (at least) a past tense marker. The findings on the patterns of marking in counterfactual constructions thus point to the quantity-implicature analysis proposed in Verstraete (2004). In this analysis, the modal element creates a scalar relation with its non-modalised counterpart. This scale in terms of "epistemic strength" (Verstraete 2004:11) is needed for a Q1-implicature to be possible at all. Further, the past tense element is needed as a second component to form "an epistemic maximum that can trigger a counterfactuality implicature" (Verstraete 2004:11). As was discussed, the combination of a modal element with a past element is pragmatically marked, since the modal element signals that the utterance is epistemically weaker than its non-modalised counterpart and thus less plausible, whereas the past tense marker signals that the speaker knows whether the SoA referred to actually took place or not, as the past is inherently knowable. The

hearer, assuming that the speaker is observing the Gricean principle of quantity, realises that the speaker has a reason to use this epistemically weaker (and pragmatically marked) expression, and thus cannot but conclude that the SoA referred to was not actualised. Since the combination of a modal marker with at least a past element occurs in the majority of the languages investigated, the quantity-implicature analysis is thus supported in many of the cases. In what follows, further arguments are given in favour of the quantity-implicature analysis.

What is crucial to the semantic-pragmatic status of counterfactual constructions is that counterfactual meaning arises as an implicature, and is thus not basic. If we only take the most recurrent pattern used to code counterfactuality into account, the basic meaning of the construction seems to be past modality: from a compositional perspective, the combination of a modal element and a past element simply gives rise to a past modal meaning. The counterfactual meaning assigned to the utterances discussed above should therefore be seen as an implicature triggered by the pragmatically marked combination of modal meaning and past tense meaning (Verstraete 2004:12). If the State of Affairs referred to had been actualised, the speaker would have used only a past tense. In counterfactual utterances, however, the speaker combines a past tense with a modal element, so that the hearer assumes that they had a reason to do so, i.e. that the State of Affairs referred to did in fact not take place. The quantity-implicature analysis thus takes the formal compositionality of the cross-linguistically most frequent pattern seriously (Verstraete 2004:9).

A further argument relates to the semantics of counterfactuality. As we described on the basis of the sample, counterfactuality incorporates different types of modality, viz. epistemic, deontic and desiderative-intentional modality (see section 3.3.1). The modal component of meaning may thus vary in modal notion involved, and can therefore be regarded as part of the basic meaning of the utterance. As Verstraete (2004:12) notes, "the counterfactual implicature does not erase this component, but is merely superimposed on it." Counterfactual meaning is thus not basic (i.e. grammatically encoded), but arises as an implicature triggered by the basic meaning of past modality. We may therefore also conclude that the definition of counterfactuality given in chapter 1 is supported by the data. Counterfactual utterances were defined as statements which indicate that a certain State of Affairs was plausible, desirable or

intended, but in the end was not actualised. Clearly, two semantic components were distinguished: a modal one, which may be regarded as basic, and a counterfactual one, which is argued to be an implicature. The quantity-implicature may thus account for the different types of modality involved in counterfactual utterances, and the double-layered nature of counterfactual meaning.

A final argument in favour of the implicature analysis is that the counterfactual component of meaning can be cancelled in some cases, so that only the basic meaning of past modality remains. If counterfactuality were encoded, cancelling this component would not be possible. This is rarely commented on in the grammars consulted, and accordingly I could not find much direct evidence of cancellability. In his sample of twenty-eight non-Pama-Nyungan languages, however, Verstaete (2004) does find evidence for the cancellability of the counterfactual implicature. Schultze-Berndt (2000) and McKay (1975), writing on Jaminjung and Rembarrnga respectively, both note that the markers used to code counterfactuality also occur in utterances with only a past modal meaning, the counterfactual component thus being cancelled. In Dutch, examples of sentences with a past modal meaning without a counterfactual component can be found as well. Compare (54) with (55).

(54) Zijn vader dwong   hem de losprijs te betalen.   DUTCH
      his   father force.PST.3SG him the ransom to pay
      Hij **had**   alles   **moet-en**   verkop-en
      He **have.PST**.3SG everything **must-INF** sell-INF
      om   het geld   bijeen   te krijgen
      in order to the money together to get
      "His father forced him to pay the ransom. He had had to sell everything to raise
      the money" (my example)

(55) Ik **had**   het je   **moeten**   vertellen   DUTCH
      I **have.PST**.1SG it   you   **must-INF** tell-INF
      "I should have told it to you." (my example)

In example (54), the son really sold everything to get together the money for the ransom. The utterance thus has a past modal meaning without a counterfactual component, although the same markers were used as in example (55), which can only be interpreted as counterfactual - at least without further context. So, both utterances contain the pluperfect form of the modal auxiliary **moeten** ('must')[17] with the main verb in the infinitive, but the first one (54) has a basic past modal meaning, whereas the second (55) has a counterfactual meaning. The difference in meaning is also clear from the different translations I assigned to the utterances. Further, I also found evidence for the cancellability of the counterfactuality implicature in Malayalam (Asher & Kumari 1997). As in Dutch, the markers used in counterfactual utterances also occur in non-counterfactual constructions, which have a past modal (deontic) meaning. Compare example (56), which repeats (31), with (57).

(56)   naan pook-**eent**-ata-ay-**irunnu**   MALAYALAM

       I   go-**DEB**-NOML-[linking -ay-] **[PERF₁.]PST**

       (pakse poo-y-i-[i]lla)   (my glosses)

       but go-[linking -y-]-PST-NEG

       "I should have gone (but didn't go)." (Asher & Kumari 1997:307-1540)

(57) naan pook-**anam**-aay-**irunnu**   (my glosses)   MALAYALAM

       I   go-**DEB**-[linking -aay-]**PST[.PERF1]**

       "I had to go." (Asher & Kumari 1997:307-1539)

As can be derived from the translations, (56) has a counterfactual meaning, and (57) has a past modal one. As to the formal marking, both structures contain a debitive mood marker, a perfect aspect marker and a past tense marker. However, the structures also formally differ in that (56) - unlike (57) - contains a nominalising suffix and an adversative clause. In section 3.2.4 it was argued that the nominalising suffix may be

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[17] Normally, the pluperfect is formed by a periphrastic construction consisting of the simple past form of the auxiliary that the verb takes to form its perfect tenses and the perfect participle of that verb. If the verb is a (modal) auxiliary, however, the infinitive is used instead of the perfect participle, with the infinitive of the main verb immediately following the infinitive of the auxiliary.

regarded as non-essential to the encoding of counterfactuality. Asher & Kumari (1997) do not comment on the formal difference between the two structures, but merely note that they should be compared with each other. This suggests that the nominalising suffix (and maybe the adversative clause as well) may be crucial to the encoding of counterfactuality after all. However, I am reluctant to draw this conclusion without actually consulting the authors. In so far as the formal differences in the Malayalam examples are not crucial to the difference in meaning, these structures form evidence for the cancellability of counterfactuality. Although the feature of cancellability is not often treated in the linguistic literature, it is crucial to the understanding of counterfactuality as an implicature rather than a basic meaning encoded by specific grammatical structures. As the examples in Dutch and arguably in Malayalam showed, the markers used in counterfactual utterances can also occur in sentences conveying a basic past modal meaning, without a counterfactual implicature being triggered[18]. We may thus conclude that counterfactual meaning arises as a quantity-implicature, which may be cancelled in some cases.

But how can we account for the other patterns found in the sample? The languages using a modal marker in combination with a perfect(ive) element may be argued to follow the 'modal with past' pattern as well. In Kashmiri (Wali & Koul 1997) and Pipil (Campbell 1985), the element accompanying the modal marker is a perfect participle marker. Perfect aspect always relates some state to a preceding situation and generally indicates "the continuing present relevance of a past situation" (Comrie 1978:52). As such, it does not so much represent the internal temporal constitution of a situation, but "expresses a relation between two time-points, on the one hand the time of the state resulting from a prior situation, and on the other the time of that prior situation" (Comrie 1978:52). The States of Affairs referred to by a perfect participle

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[18] In a more recent grammar of Basque than the one I consulted for the sample (Hualde & Ortiz de Urbina 2003), an alternative construction is mentioned to form counterfactual apodoses, containing the future in the past, which consists of the future participle and the past form of the indicative auxiliary (2003:267). They also mention that this form is used "in subordinated clauses indicating an event which takes place in the future with respect to the event expressed in a past tense in the main clause" (2003:267), such as, for example, in *she told me she would arrive late*. Here, the markers in the subclause are the same as in counterfactual apodoses, but no counterfactual meaning is involved.

thus always took place in the past, which entails that use of perfect in Kashmiri and Pipil implicates pastness. In Slave, the perfect(ive) element is a perfective 'mode' marker on the verb, which marks completed actions and is always translated as a past tense (Rice 1989:485). It may therefore also be regarded as incorporating pastness. Finally, in Nootka one of the counterfactual constructions contains a modal marker and a perfective aspect marker (Davidson 2002). Perfectivity does not necessarily indicate a completed action, but merely sees a situation as a single complete whole, "without distinction of the various separate phases that make up that situation" (Comrie 1978:16-18). As I mentioned above, however, actions marked for perfective aspect are often interpreted as completed and having continuous relevance. Since tense marking in Nootka is not obligatory and actions marked for perfective aspect often get a perfect interpretation, I would argue that Nootka also uses the 'modal with past' pattern. In this perspective, most of the patterns that use perfect(ive) aspect marking can be reduced to the 'modal with past' pattern because they implicate or incorporate pastness.

This leaves two patterns to be discussed, for which the implicature analysis cannot account straightforwardly. The 'modal with imperfective' pattern found in Ika and Hdi is formally composite, but the imperfective component cannot be linked adequately with the past component needed in the implicature analysis. The pattern of direct counterfactual marking, on the other hand, is even not formally composite - at least not synchronically. As these patterns do encode counterfactuality, however, we should conclude that counterfactual meaning may arise in various ways, one of which is as a quantity implicature. In the discussion of the 'modal with imperfective' pattern (see section 3.2.2), I already presented James' (1982) and Fleischman's (1995) accounts on the presence of imperfective aspect markers in hypothetical environments. James (1982) emphasises the shared semantic feature of imperfective aspect and hypotheticality in that "they both indicate something which is in some way not fully realised" (1982:399) (see section 3.2.2 for further discussion). She also cites Hopper (1981) on the discourse notion of backgrounding, which is taken up by Fleischman (1995). According to Fleischman, the fact that imperfective aspect is commonly used to render background information, which arguably has a reduced degree of assertiveness, may explain why many languages use it in hypothetical statements as well, as these clearly do not assert the truth of their propositions either. James' non-completion hypothesis and

Fleischman's backgrounding view may thus explain the occurrence of an imperfective aspect marker in hypothetical environments, but these are not necessarily counterfactual. How the combination of a modal element with an imperfective aspect marker can encode counterfactual meaning still needs to be motivated in semantic-pragmatic terms, and may be a question for further research.

Finally, the pattern involving direct encoding of counterfactuality is problematic as well, as it seems to imply that for the languages using the pattern counterfactual meaning is basic after all. Whereas for the 'modal with imperfective' pattern, an implicature analysis still remains plausible as it is formally composite, we have to abandon the implicature hypothesis for the pattern involving direct coding of counterfactuality, as only one marker is responsible for the counterfactual meaning of the utterance. One possibility might be that such a marker is diachronically or synchronically complex. In Somali (Saeed 1999), for instance, the 'conditional' mood marker **lahaa** is formally complex, as it consists of the adjective **léh** meaning 'having, possessing' acting as the complement of past simple forms of **yahay** 'be'. The past tense of the copula fuses with the adjective stem, with **léh** and **ahaa** resulting in the conditional form **lahaa** (Saeed 1999: 91). We thus have an element synchronically expressing possession and a past element. In the grammars of Chukchi (Dunn 1999), Hua (Haiman 1980) and Kolyma Yukaghir (Maslova 2003), however, the counterfactual markers were not described as diachronically or synchronically complex, so that we are led to conclude that in these languages counterfactual meaning is really basic.

In the next chapter, I will move from simple to complex counterfactual constructions. I will discuss the relation between simple and complex counterfactual utterances, by investigating the types of markers involved and the distribution of these markers over protasis and apodosis. As I did in this chapter, I will finally come back to the semantic-pragmatic status of counterfactuality and see what the findings on complex counterfactuals can tell us about how counterfactual meaning arises.

Chapter 4: Complex counterfactual constructions

Whereas the previous chapter discussed simple counterfactual utterances, this chapter treats complex counterfactual constructions, i.e. conditional sentences with counterfactual marking. In section 4.1, I will first briefly discuss how complex counterfactual constructions can be related to the simple counterfactual constructions dealt with in the previous chapter. In sections 4.2 and 4.3, I will present the counterfactual conditional constructions found in thirty-eight out of forty-one languages of the sample. Here again, I will systematically distinguish between utterances referring to present situations and those referring to past situations. Present counterfactual conditionals will be dealt with in 4.2, and past constructions will be treated in 4.3. In both sections I will discuss which markers are involved and where they occur, focusing on the question of symmetry or asymmetry between the protasis and the apodosis. Table 6 below presents the thirty-eight relevant languages and shows for which constructions I found data in each language. Grey shading means that the construction in question is found in a particular language. Finally, in section 4.4 I will come back to the status of counterfactuality in semantic-pragmatic terms and see whether the findings on complex constructions may give us a better understanding of how counterfactual meaning arises.

Language	Complex: present	Complex: past	Language	Complex: present	Complex: past
Amele			Lezgian		
Angolar			Ma'di		
Basque			Malayalam		
Burushaski			Mangab Mbula		
Cantonese			Mekens		
Chukchi			Muna		
Dutch			Nama Hottentot		
Fongbe			Nootka		
Georgian			Pipil		
Gooniyandi			Slave		
Hdi			Somali		
Hmong Njua			Supyire		
Hua			Tibetan		
Kashmiri			Tiriyó		
Koasati			Turkish		
Kolyma Yukaghir			Vai		
Korean			Vietnamese		
Lango			Wardaman		
Lavukaleve			West Greenlandic		

Table 6: The sample languages with present and/or past counterfactual conditional constructions

4.1. The relation between simple and complex counterfactuals

Before discussing how the languages in the sample form counterfactual conditionals, I will first point out how these complex constructions could be related to their simple counterparts. Simple constructions consist of one main clause only and thus refer to just one State of Affairs. Complex constructions, however, consist of a main clause (the apodosis) which is modified by a conditional subclause (the protasis), and thus refer to two States of Affairs. What type of relation, if any, could there be between the simple constructions dealt with in the previous chapter and the complex constructions discussed here? On the one hand, a simple construction could be analysed as a complex

construction without a protasis. In English, for instance, one can easily add a protasis to every simple counterfactual, resulting in a complex construction. The utterance *I could have walked the dog*, for example, may function as the apodosis in a conditional construction, such as *if the weather had been nice, I could have walked the dog*. In this perspective, we could therefore expect that the simple counterfactual constructions treated in the previous chapter are formally identical to the apodoses of complex counterfactual constructions.

In an alternative view, however, the protasis as a whole may be regarded as a modal element, modifying the apodosis. In this perspective, a simple counterfactual construction is not seen as an elliptical complex construction, since the presence of a protasis in a complex construction modalises the apodosis utterance, which thus differs from simple constructions. By adding a protasis to a main clause, one makes the realisation of the State of Affairs in that main clause contingent on the realisation of the SoA referred to in the protasis (see also James 1982). As such, the protasis functions as a modal element within the complex sentence as a whole, modifying the verb phrase of the apodosis. We may therefore expect that the apodosis need not contain a modal element itself, since the protasis already adds a modal meaning to the sentence, and that the apodosis will be formally different from a simple counterfactual construction.

In order to find out which hypothesis, if any, is supported by the data, we should investigate which markers occur in complex counterfactual utterances and try to distinguish patterns as we did for the simple constructions. In searching for relevant markers, I did not initially take into account the possible role of the protasis as a modal marker (as in the second hypothesis). Accordingly, I left conjunctions out of consideration, as well as conditional mood markers with a conjunction function. As already discussed in the chapter on methodology (see section 2.2), elements labelled 'conditional' may have two functions. In some cases, the conditional marker has a modal meaning. If so, it can occur in simple constructions as well. In other cases, however, the conditional marker only occurs in subordinate environments and merely signals the conditional protasis, thus serving as a conjunction. In these cases, I always added ['if'] to the relevant gloss, thus distinguishing it from conditional markers with a modal meaning. Finally, as some languages use specifically counterfactual conjunctions

to signal the protasis, I will treat these conjunctions in separate sections (see sections 4.2.1.4 and 4.3.1.7).

In addition to the question which markers are used in complex counterfactual constructions, we also need to look at where these markers occur, i.e. in the protasis and/or in the apodosis. The way the relevant markers are distributed over protasis and apodosis may give us a better insight into the role of the protasis vis-à-vis the apodosis. When looking at the distribution of the markers, I will also address the question of symmetry or asymmetry between the protasis and the apodosis, one of the few aspects of complex counterfactual marking that has received some attention in the literature. Haiman & Kuteva (2002), for instance, point out that there is a general tendency manifested by "subgrammatical forms" to give the protasis and apodosis of a counterfactual conditional parallel structures, whereas the standard or "canonical" form of this construction is asymmetrical (2002:102). They argue that "this living "subgrammatical" tendency is generalised and conventionalised in the grammars of a wide range of unrelated languages" (2002:108). So, apart from discussing where which types of markers occur in order to examine the relation between the protasis and the apodosis, I will also investigate whether this cross-linguistic tendency towards symmetrical marking in counterfactual conditionals holds.

4.2. Complex counterfactuals with present temporal reference

As can be seen in table 4 above, in fourteen out of forty-one grammars consulted I found data on present counterfactual conditionals. In some cases, they contain the same markers as their past counterparts, while in others they have the same construction as purely hypothetical conditionals with only the context and the lexical content making the utterance counterfactual. They may also form an intermediate category, mixing formal elements of both past counterfactual and hypothetical conditionals. In 4.2.1 I will discuss which types of markers are involved, and in 4.2.2 I will investigate how they are distributed over protasis and apodosis.

4.2.1. The markers of present counterfactual conditionals

When investigating the markers used in counterfactual conditionals with present temporal reference, I came across three different patterns. As I mentioned above, in the discussion of these patterns, I do not regard the protasis as a whole as a modal marker, and accordingly I do not take the conjunction signalling the protasis - or a conditional mood marker having the same function - into account. Further, I do not specifically discuss where the markers occur, since this will be dealt with in 4.2.2, but I did underline the protasis in every example so that the structure of the utterance is more clearly visible. In what follows I will present the patterns I distinguished, irrespective of whether a certain marker occurs once or more in the relevant construction. I thus only take the types of markers into account, and not whether they occur once or more, in the protasis or in the apodosis.

As was the case with simple counterfactual constructions, a first distinction can be made between languages that use only one type of marker to form present complex counterfactual constructions, and those that use at least two types of markers. One thing that strikes us immediately is that in almost all languages a modal marker is involved. Apart from Somali (Saeed 1999), which uses direct counterfactual marking, only the present counterfactual conditional found in Ma'di does not contain any modal element, but it should be noted that in the example provided in the grammar the protasis as well as the apodosis are verbless copular constructions, so that the possibility of modal marking on or in combination with verbal morphology has been excluded. It only contains the adverbial **kesú**, which "shifts the point of temporal reference in to the past (or sometimes just makes it hypothetical without a specifically past meaning) and also gives the interpretation 'if X had happened…'" (Blackings & Fabb 2003:495). The example is shown in (58).

(58) **kesú** ni   ʔi   ku,   ma   ìjo   MA'DI
    [**if**   2SG   FOC   NEG(N)]   1SG   absent
    "Had it not been for you, I would be no more." (Blackings & Fabb 2003:539-360)

As it is not very clear what the function of **kesú** is in this utterance (the gloss suggests that the adverbial only makes the clause hypothetical, whereas the translation suggests

that a past meaning is involved as well) and the construction lacks verbal morphology, I did not devote a section to the pattern found in Ma'di, but rather ignored it in the following discussion. Apart from Somali and Ma'di, all relevant languages thus have at least a modal element in the present counterfactual conditional in addition to the modalising protasis. Five languages only have one type of marker, two languages combine a modal element with a present tense marker, and in five languages the modal element - very often a future tense marker - is accompanied by a past tense marker. Finally, one language - Tiriyó (Meira 1999) - combines a modal element with a marker that only occurs in complex counterfactual constructions and may thus be argued to have a conjunction function. Table 7 below presents the three patterns of marking found in present counterfactual conditionals, and shows which languages use them. In what follows I will discuss these patterns and the special case of Tiriyó in more detail.

One single marker		Modal marker & present element	Modal marker & past element	Counterfactual conjunctions
Direct counterfactual marking	Only modal marking			
Somali	Cantonese	Georgian	Angolar	Georgian
	Hmong Njua	Wardaman	Dutch	Supyire
	Pipil		Lezgian	Tiriyó
	West Greenlandic		Supyire	
			Vai	

Table 7: The patterns of marking in counterfactual conditionals with present temporal reference

4.2.1.1.One single marker

As can be seen in table 7 above, in five out of thirteen languages the counterfactual conditional construction referring to a present situation contains only one type of marker. That marker may either occur only in counterfactual environments, or, it can also be used in other modal environments. In the first case, the marker may be said to code counterfactuality directly; in the other case, the marker is of a modal type and expresses counterfactuality in a particular utterance in a specific context.

4.2.1.1.1.Direct counterfactual marking

As was mentioned above, only one language in the sample forms present complex counterfactual constructions with just one marker that occurs exclusively in counterfactual environments, viz. Somali (Saeed 1999). An example is given below.

(59) **haddii**   dalku   beero falan,   guryo iyo adduun   SOMALI

      time-the['if'] country-the farms plough-INF houses and wealth

      <u>badan lahaan</u>   **lahaa**   dan   bay

      much have-INF   [**having.be.PST.3SG(=COND)**] advantage FOC+they

      kuu   ahaan   layad inaad   u   dagaalantaa

      you+for be[:INF]   have   that-you for fight

      "If the country had ploughed farms, houses and great wealth, there would be profit for you in fighting for it." (Saeed 1999:223-63)

In Somali, the counterfactual protasis is signalled by the same element as the hypothetical protasis, but the grammatical marking found in the construction is specifically counterfactual. As in (59), conditional protases are always headed by the noun **hád** 'moment, point in time' suffixed with the definite article **–tii** to form **haddíi**. This applies both to hypothetical and counterfactual conditionals. The conditional mood, however, occurs only in counterfactual conditionals. It is formed by the adjective **léh** meaning 'having, possessing' acting as the complement of past simple forms of **yahay** 'be'. As is usual with adjectives in Somali, the past tense of the copula fuses with the adjective stem, with, for instance, **léh** and **ahaa** resulting in **lahaa** '(I/He was having/had') (Saeed 1999:91). Apart from counterfactual utterances, the conditional mood marker may also occur in simple constructions with counterfactual meaning (see section 3.2.1), which means that it is not a conjunction (Saeed 1999:100). In Somali, this element distinguishes between present counterfactual conditionals and hypothetical constructions. I did not find any information on past counterfactual conditionals.

4.2.1.1.2.Only modal marking

Whereas Somali uses one marker that codes counterfactuality directly, there are four languages which use one marker that can have other functions as well. In Pipil (Campbell 1985), for instance, the modal element is a conditional mood marker, which may also occur in simple counterfactual utterances (see example (18) in section 3.1) and in (non-counterfactual) desiderative-intentional contexts (Campbell 1985:68).

(60) <u>ni-k-pix**-(s)kiya** tumin</u>,   ni-k-kuwa-**skiya** turuh   PIPIL
       I-it-have-**COND** money,   I-it-buy-**COND** cow
       "Had I money, I'd buy cows." (Campbell 1985:135-3)

The construction in (60) is intermediate between the past counterfactual conditional in Pipil, which combines the conditional mood marker -**skiya** with a perfect element, and a hypothetical conditional construction, which does not have perfect elements or modal markers, but uses the conditional conjunction **(a)su** ('if') to introduce the protasis. Pipil thus only uses conditional mood markers to form present counterfactual conditionals, which are formally intermediate between past counterfactual and hypothetical conditionals.

Two languages with only modal marking do not formally distinguish between present counterfactual and hypothetical conditionals. In Cantonese (Matthews & Yip 1994) and Hmong Njua (Harriehausen 1988) the same markers are used in both constructions. In these cases, it is only the context and the lexical content of the utterances that induce a counterfactual interpretation. Consider (61) and (62).

(61) **<u>Yog</u>** <u>koj yog Hmoob</u> koj lub npe **yuav** yog Liaq   HMONG NJUA
       COMP 2SG be   Hmoob 2SG CL name **FUT** be Lia
       "If you were a Hmoob, your name would be 'Lia'." (Harriehausen 1988:244-462)

(62) **<u>yùhgwó béi   ngóh</u>** <u>jouh lóuhbáan</u>, saht mh **wúih** chéng kéuih CANTONESE
       if   give me   do   boss   sure not **will** invite him

"If I were the boss, I certainly wouldn't give him a job." (Matthews & Yip 1994:304)

If it is clear from the context that the hearer is not a Hmoob, which I assume to be the case, the utterance in (61) is counterfactual. The future tense marker **yuav** functions here as a modal marker (COMP is a conjunction). In (62), the modal marker (**wúih**) is a modal auxiliary expressing possibility or probability. Further, the protasis contains the idiom **yùhgwó béi ngóh** meaning 'if I were you/him/…', which is evidently not true. The clause *if I were the boss*, however, is not evidently false (as it is not counteridentical (Declerck & Reed 2001)), but I assume that it is clear from the context that it is not true, i.e. that the speaker is not the boss. Both sentences thus have protases which are arguably false and make the utterance as a whole counterfactual, although there is no grammatical indication to interpret the examples that way.

Finally, one language that uses only modal marking has a present counterfactual conditional which differs from remotely hypothetical conditionals in terms of only one marker. It further differs from the languages treated above, in that more than one type of modal marker is used. The language in question is West Greenlandic (Fortescue 1984). Compare (63) with (64).

(63)   <u>ilin-nut   taku-tik-**kukku**</u>   WEST GREENLANDIC
         thou-ALL   see-cause-1SG.2SG.**COND['if']**
         tupigutsa-**ssagaluar**-putit
         be surprised-**would**-2SG.INDIC
         "If I showed it to you, you would be surprised." (Fortescue 1984:66)

(64)   <u>Nuum-mi   najugaqa-nngik-**kalua**-**ruma**</u>   WEST GREENLANDIC
         Nuuk-LOC   live-not-[**MODAL**]-1SG.**COND['if']**
         sulia-**ssar**-si-sinnaa-**ssagaluar**-punga
         work-**FUT**-get-can-**would**-1SG.INDIC
         "If I did not live in Nuuk, I would be able to find work." (Fortescue 1984:66)

The conditional in (63) is hypothetical, whereas the construction in (64) is counterfactual. Both contain the modal marker **ssagaluar,** which codes hypotheticality and counterfactuality, apart from the conditional marker which has a conjunction function since it occurs only in conditional protases (Fortescue 1984:290). Unlike the hypothetical construction, the counterfactual conditional has a future tense marker, but Fortescue (1984:66) explicitly notes that a hypothetical apodosis may have future markers as well. The marker that distinguishes between the two constructions, however, is the modal element **galuar** (i.c. its allomorph **kalua**) in the protasis, which indicates that the speaker presupposes that "the state or action of the verb base does not pertain exactly or was not completed, or expresses some other reservation on the speaker's part" (Fortescue 1984:296). Thus, in West Greenlandic the present counterfactual conditional contains only pure modal markers and a future tense marker with a modal flavour, and it differs from remotely hypothetical conditionals by the presence of one pure modal marker.

In conclusion, in five out of fourteen languages, present counterfactual conditionals contain only one type of marker. In one language, Somali, the relevant marker encodes counterfactuality directly. The four other languages use only modal elements. These elements are either pure modal markers, or future tense markers with a modal flavour. In the two other patterns, the modal element is accompanied by another type of marker.

4.2.1.2. Modal marker and present element

In two languages, the modal element in counterfactual conditionals referring to a present situation is accompanied by present tense markers. The languages in question are Georgian (Hewitt 1995) and Wardaman (Merlan 1994). This present element distinguishes the constructions illustrated below from their past counterparts. Consider (65) and (66).

(65) <u>me</u>   **rom** sen   v-i-q'-**o**,   xma-s   GEORGIAN

 I(NOM) **if** you(NOM) I-SV-be-**AOR.SUBJ** sound-DAT

a+gar   a-mo-v-(Ø-)i-g-eb-**d-i**

no.longer PREV-PREV-I-(it)SV-raise-TS-**IMPF-INDIC (=COND)**

"If I were you, I would not make another sound."(Hewitt 1995:586)

(66) <u>yi-meleman   **bujun** yinyang   milygbilyg-ba</u>   Wardaman

YI-black-ABS **if**   2SG-ABS beat-PS

yi-ni-jingi-**n**   gunga   mejern   yi-ngawuju-wu

IRR-2SG-AUX-**PRES**   3SG-DAT belly   YI-grandchild-DAT

wagayma ngayugu   nga-jingi-n   gunga

like   1SG-ABS 1SG-COP-PRES   3SG-DAT

"If you were black, your heart would beat for your grandchild as mine is doing for him." (Merlan 1994:294-719)

The utterance in (65) does not contain a present element, but this is because the Georgian copula has no present subjunctive form; in this example its place is taken by the aorist subjunctive (Hewitt 1995:586). The modal elements are the subjunctive form and the conditional marker, which I assume to have a modal meaning, since it goes back diachronically to the future indicative and it occurs in the counterfactual apodosis. In (66), the modal element and present element are marked on the same verb form by the irrealis prefix **yi-** and the present tense suffix **–n** respectively. Given that this pattern is found in only two languages, it can be considered as a minor pattern used to form present counterfactual conditionals.

4.2.1.3.Modal marker and past element

In five out of thirteen languages, finally, complex counterfactual constructions referring to a present situation use a modal marker in combination with a past tense marker. In one language, the modal element is an irrealis marker; in the four other languages it is a future tense marker - with a modal flavour - that combines with the past element. This latter combination is found in Dutch, as can be seen in the following example.

(67) <u>Als ik jou was</u>,   DUTCH

   if   I   you be.**PST**.1SG

   zou   ik naar de dokter gaa-n

   FUT.AUX.PST.1SG I   to   the doctor go-INF

   "If I were you, I would go to the doctor." (my example)

As was already mentioned above, the form **zou** is both a past and a future form, and is often regarded as a modal auxiliary. We know it is a past form because it occurs in backshift, which is automatic in Dutch in contexts of indirect speech. At the same time, it is also a future element, as it is an inflected (past) form of the future tense auxiliary **zullen** ('will'). The construction illustrated in (67) differs from hypothetical conditions, which do not have a past tense in the protasis, as well as from past counterfactual constructions, which involve either pluperfect tense or future perfect in the past. In the other languages using this pattern, however, the present counterfactual conditionals contain exactly the same markers as their past counterparts.

The four languages that do not formally distinguish between present and past complex counterfactuals are Angolar Creole Portuguese (Lorenzino 1998), Lezgian (Haspelmath 1993), Supyire (Carlson 1994) and Vai (Welmers 1976). In these languages, all counterfactual conditionals contain at least a modal marker combined with a past element. Only Angolar Creole Portuguese uses a pure modal marker, the other languages all combine a future tense marker with a past element. Examples are given below.

(68) <u>lisanlu **tir-t'a**</u>   am   za-qh   LEZGIAN

   engaged COP.**PST-COND['if']** she:ABS I-POESS

   galaz ik'   raxa-**da**-c-**ir**

   with thus talk-**FUT**-NEG-**PST**

   "If she were engaged, she would not talk to me like this." (Haspelmath 1993:396-1103c)

(69) **<u>Ámpyi</u>** yìi   cyèebíí   màha m-pyi àmunì mé,   SUPYIRE

   If.CTF you.PL women.DEF HAB IP-be thus   NEG

    Mìi **mpyi na sí** m-pyì mu á pyà

    I **PST PROG FUT** FP-become you to child

    "If you women weren't like that, I would have become a child for you." (Carlson 1994:369-129)

(70) <u>**hìi**</u> à bè **wì** sò ké-nà wó'é, **mbè** kúndà à ké'é**'à**   VAI

    [**if**]   [**ANT**]   [**CM:FUT**.1SG]   [**FUT**] (my glosses)

    "If he were working today, I could call him." (Welmers 1976:107)

The Lezgian sentence in (68) contains only two relevant types of markers, viz. a future tense marker and a past element. Normally, counterfactual conditionals are also marked for perfective aspect by an aorist form, but when a verb, such as the copula, does not have a past aorist, the simple past is used instead. Therefore (68) only has two types of markers, and the future in the past meaning is expressed by the apodosis verb. Note that the conditional marker has a conjunction function, as it only occurs in subordinate environments (Haspelmath 1993:345-427). The Supyire utterance in (69) contains a past element (**mpyi**) and future tense marker (**sí**) as well. It also has a progressive aspect marker (**na**), which is obligatory when **mpyi** combines with **sí** to form a future in the past. As Carlson notes, this is a relic of the origin of the future auxiliaries as imperfective verbs (1994:353-58). The same construction can be used to form a past counterfactual conditional, although other types of constructions are possible as well. In the Vai structure in (70), we also find a future in the past meaning. The future tense element is composed of the future tense suffix -**'à** and a so-called "construction marker" (CM) which in case of a first person singular subject combines with the personal pronoun to form **mbè**. The past element is the temporal adverbial **wì** which refers to a prior action and can thus be regarded as an anteriority marker. Apart from Dutch, Lezgian, Supyire and Vai also use future tense marking in combination with past tense marking in past counterfactual constructions.

    Finally, the only language that has a pure modal marker accompanied by a past tense element is Angolar Creole Portuguese (Lorenzino 1998). This language does not formally distinguish between present and past counterfactual conditionals either, as can be seen in the following example which was given two translations.

(71) Ami **ta   ka**   taba   fazEnda   ANGOLAR CREOLE PORTUGUESE

     1SG   **ANT IRR** work plantation

     Ola   ma pagamEntu E   ta   maSi bwara

     when   salary   DEM be-**PST** more good

     "I would work on a plantation if the salary was higher." (present)

     "I would have worked on a plantation if the salary were higher." (past) (Lorenzino

     1998:170-86c)

In (71), the modal element is the irrealis maker **ka** and the past meaning is expressed by the anteriority marker **ta**, which is homophonous with the past tense form of the copula, and the past tense form of the protasis verb, i.c. the copula. We thus find a modal marker accompanied by two past elements in both present and past counterfactual conditionals.

     In conclusion, in five out of thirteen languages, counterfactual conditionals referring to a present situation were found to contain a modal marker combined with a past element. Apart from Dutch, these languages do not formally distinguish between present and past complex counterfactual constructions. Further, only Angolar Creole Portuguese was shown to use a pure modal marker accompanied by a past tense element; the other languages all use a future tense marker.

4.2.1.4.Counterfactual conjunctions

So far, I have left conditional conjunctions, as well as conditional markers that have the same function, out of consideration in my typology of construction types, because they are generally shared between conditional constructions and not specific to counterfactual ones. There are a number of languages, however, which use conjunctions that are specifically counterfactual. One of them is Tiriyó (Meira 1999), which uses apart from a modal marker yet another type of marker which only occurs in counterfactual apodoses. Consider the following three conditional constructions, with (72) showing a hypothetical conditional, (73) a present counterfactual conditional and (74) a past counterfactual conditional.

(72) j-eemi   t-ënë-e   **ahtao**,   TɪʀɪʏÓ

1-daugher:POS RM.PST-eat.meat-RM.PST **if**,

w-epanïï-ja-e;

1A-take.revenge-PRES.IMPF-CERT

"If he ate my daughter, then I'm going to take revenge." (Meira 1999:566-79e)

(73) wei wararë karaiwa   sen po   **ahtao**,   TɪʀɪʏÓ

day every   Brazilian 3IN.PX_LOC **if**,

anja i-waarë_**mo**   e**i**   karaiwa   i-jomi

1+3 3-COGN_**IRR** 3SG:COP**HYP** Brazilian 3-language:POS

"If there were/had been Brazilians here every day, we would learn/have learnt the

Brazilian language." (Meira 1999:316-96a)

(74) same_ken   apëh-**tuuwë**   wïja, ameraarë_**mo** anota-**i**   TɪʀɪʏÓ

fast_CONT   3: catch-**POST** 1:by, all_**IRR**   3S$_O$:fall-**HYP**

"If I had caught them fast, they would all have fallen."(Meira 1999:316-96b)

As can be seen in the examples, the present counterfactual conditional construction in (73) uses the same conjunction (**ahtao**) as the hypothetical conditional in (72), but also contains the irrealis particle [sic!] _**mo** and the hypothetical marker –**i**, which both occur in the past counterfactual construction as well. It is the hypothetical marker **-i** that occurs only in complex counterfactual constructions and may thus be argued to have a counterfactual conjunction function. It cannot occur without the irrealis particle _**mo**, which, however, can occur in other environments. The present counterfactual structure thus has two elements with a conjunction function, which could be regarded as a correlative conjunction of the type *if* (**ahtao**) *then* (**-i**). The past counterfactual construction in (74), however, does not contain the conjunction **ahtao**, but only the hypothetical marker. It further contains the posteriority marker –**tuuwë**[19], which does

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[19] It should be noted, however, that the protasis in (73) is a verbless copular construction, so that the posteriority suffix –**tuuwë** cannot occur. It is, however, the only example of a present counterfactual conditional I found in the grammar. The term 'posteriority marker' may be confusing, since the marker

not occur in the present counterfactual construction. In counterfactual apodoses in Tiriyó, we thus find an element serving as a specifically counterfactual conjunction. Further, the present counterfactual conditional clearly is formally intermediate between hypothetical and past counterfactual conditionals.

Apart from Tiriyó, there are two other languages that also use different conjunctions in counterfactual conditionals. Georgian, for instance, distinguishes between real, unreal and mixed conditions. Real conditional protases are introduced by **tu** ('if') and have non-subjunctive protasis and apodosis verbs. Unreal conditions are marked by the conjunction **rom** ('if') and have a subjunctive form or a pluperfect marker in the protasis and a conditional form in the apodosis. Counterfactual protases are thus signalled by **rom**, but remotely hypothetical protases also use this conjunction, such as, for instance, the utterance *if it were to rain tomorrow, I would stay at home.* Finally, Hewitt (1995) uses the term 'mixed conditions' to refer to constructions that combine a real protasis with an unreal apodosis or vice versa, and may be introduced by both **tu** and **rom** (1995:583-588). The other language at issue is Supyire, which has many conditional conjunctions, some of which are restricted to counterfactual protases, viz. **ámpyi**, **kámpyi**, **ná m-pyi** and **ná á nì** (Carlson 1994:570-78).

4.2.1.5.Conclusion

In the discussion above, I distinguished three patterns in the formation of present counterfactual constructions, and also discussed the special cases of counterfactual conjunctions. I assigned twelve languages to the three types of constructions distinguished and ignored the Ma'di utterance because its structure was unclear in the grammar. Apart from Somali, which was shown to have direct counterfactual marking, all twelve languages and Tiriyó use at least a modal element, apart from the protasis (which in one theory could be regarded as a modal element modifying the apodosis (see section 4.1)). In four languages, i.e. one third, modal elements were shown to be the only type of marker present in the conditional construction. The second pattern discussed involved the combination of a modal marker with a present tense marker and

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indicates that the action in the subclause is anterior to the one in the main clause, which is thus posterior to that of the subclause (Meira 1999:339).

was found in only two languages. Finally, the third pattern uses a combination of a modal marker with a past element: four languages were shown to combine a future tense marker with a past tense marker, and in one language the modal element was purely modal, and not a future tense marker with a modal flavour. This type of construction was found in five languages, which means that it is roughly as frequent as the pattern of only modal marking. Apart from Dutch, the languages using this last pattern do not formally distinguish between present and past complex counterfactuals. Finally, I focused on the construction used in Tiriyó, which uses a hypothetical marker that only occurs in counterfactual apodoses, in addition to a modal marker. It was argued that this marker forms a pair of correlative conjunctions (*if-then*) with the conjunction in the protasis. In Georgian and Supyire, finally, specifically counterfactual conjunctions are found as well. Table 8 below summarises the findings for present counterfactual conditionals. Again, grey shading means that the element in question is used by a particular language.

Language		Direct ctf marking	Present tense marker	Modal marker	Past tense marker	Ctf conjunction
Angolar Creole Portuguese				▓		
Cantonese				▓		
Dutch				▓		
Georgian			▓	▓		▓
Hmong Njua				▓		
Lezgian				(& perfective element)		
Pipil				▓		
Somali		▓				
Supyire				▓	▓	▓
Tiriyó				▓		▓
Vai				▓	▓	
Wardaman			▓	▓		
West Greenlandic				▓		

Table 8: The markers of counterfactuality in present complex constructions

4.2.2. Where do the markers of counterfactuality occur?

In the previous section, three patterns were distinguished that are used to form counterfactual conditionals referring to a present situation. In what follows, I will discuss how the markers used in these constructions are distributed over the protasis and the apodosis. In 4.2.2.1 I will present the languages which have symmetrical marking in protasis and apodosis. In these languages, the two clauses of the complex construction contain exactly the same markers. In 4.2.2.2 I will treat the asymmetrical patterns of marking. Here, three subpatterns may be distinguished. The protasis and apodosis may contain the same number of markers, but of a different type. Further, the protasis may have more markers than the apodosis, or the apodosis may contain more markers than the protasis. In terms of frequency, the discussion will show that asymmetrical marking is far more frequent than symmetrical marking, which goes against the tendency posited by Haiman & Kuteva (2002). As to the types of markers, it will become clear that modal marking always occurs at least in the apodosis, if the construction uses modal

marking at all. Present tense and past tense marking may occur in both the protasis and apodosis or in one of them only.

4.2.2.1.Symmetrical marking in protasis and apodosis

In two of the thirteen languages, the marking used to form present counterfactual conditionals is symmetrical in the protasis and the apodosis. As can be seen in the examples (60) and (66) above, Pipil (Campbell 1985) and arguably Wardaman (Merlan 1994) as well have exactly the same markers in the protasis and apodosis. The Wardaman example is repeated below (75).

(75) <u>yi-meleman</u>   **bujun** yinyang   milygbilyg-ba   Wardaman
     YI-black-ABS **if**   2SG-ABS beat-PS
     yi-ni-jingi-**n**   gunga   mejern   yi-ngawuju-wu   wagayma
     IRR-2SG-AUX-**PRES** 3SG-DAT belly   YI-grandchild-DAT like
     ngayugu   nga-jingi-n   gunga
     1SG-ABS 1SG-COP-PRES 3SG-DAT
     "If you were black, your heart would beat for your grandchild as mine is doing for him." (Merlan 1994:294-719)

This is the only instance of a present counterfactual conditional I could find in the grammar, and in this particular instance only the apodosis verb is marked for both irrealis mood and present tense. The protasis, however, is a non-verbal predicate and can thus not be marked for these two TAM (i.e. tense, aspect, or mood) categories. The reason why I consider the construction to have symmetrical marking in protasis and apodosis is that in the past counterfactual conditionals, the two types of markers involved (i.e. irrealis mood marker and past tense marker) occur in both the protasis and apodosis (Merlan 1994:188). Taking into account that non-verbal predicates lack verbal morphology, and drawing on the analogy between past and present constructions, I conclude that in Wardaman present counterfactual conditionals probably have symmetrical marking of the protasis and apodosis, as is the case in Pipil. Unfortunately, there were no examples with verbal predicates in the protasis to be entirely sure.

4.2.2.2.Asymmetrical marking in protasis and apodosis

In the eleven remaining languages (I again ignore Ma'di because of the obscurity of the only instance found in the grammar) the protasis and apodosis show asymmetrical marking. Contrary to the tendency towards symmetrical marking in counterfactual conditionals posited by Haiman & Kuteva (2002), the majority of the languages in the sample thus do not have the same markers in protasis and apodosis. As to the types of markers, one generalisation is that modal marking always occurs at least in the apodosis if the construction has modal markers at all. Present tense marking only occurs in the protasis (Georgian), whereas past tense marking may occur in both protasis and apodosis, or in one of them only. In what follows I will discuss asymmetrical marking in terms of three basic subpatterns.

A first subpattern involves the same number of markers in protasis and apodosis, but of a different type. This is found in Lezgian (Haspelmath 1993) and Vai (Welmers 1976), which use modal marking combined with at least past tense marking to form both present and past counterfactual conditionals. In these languages, modal marking occurs only in the apodosis, as can be seen in the examples (68) and (70) in section 4.2.1.3 respectively. Apart from perfective aspect marking in the protasis, Lezgian further uses past tense marking in both the protasis and apodosis. In Vai, past tense marking only occurs in the protasis, as can be seen in (76) below.

(76) **hìí** à bè **wì** sò ké-nà wó'é, **mbè** kúndà à ké'é**'à**   VAI

[**if**]   [**ANT**]   [**CM:FUT**.1SG]   [**FUT**] (my glosses)

"If he were working today, I could call him." (Welmers 1976:107)

Clearly, the relative past element (**wì**) occurs in the protasis, whereas the complex future tense marker (the construction marker fused with the first person singular pronoun **mbè** in combination with the future suffix -**'à**)[20] occurs in the apodosis. It should be noted, however, that Vai is the only language using the 'modal with past' pattern in which the modal marker and past element are spread over the protasis and apodosis. In Lezgian,

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[20] The construction marker and the future tense suffix never occur on their own, and should thus be regarded as constituting only one marker.

Dutch, Angolar Creole Portuguese and Supyire the two types of markers always occur together in the apodosis. The latter three languages will be discussed below.

In a second subpattern, the protasis contains more markers than the apodosis. This is the case in Somali (Saeed 1999) and Georgian (Hewitt 1995). In Somali, the relevant construction only contains a conditional mood marker, which was shown to code counterfactuality directly. As can be seen in example (59) (see section 4.2.1.1.1), the conditional mood marker occurs in the protasis. In Georgian, the protasis contains both modal and present tense marking, whereas the apodosis has only modal marking, as can be seen in (77) below.

(77) <u>me</u>   **rom** sen   <u>v-i-q'-**o**</u>,   xma-s   GEORGIAN
      I(NOM) **if**   you(NOM) I-SV-be-**AOR.SUBJ**   sound-DAT
      a+gar   a-mo-v-(Ø-)i-g-eb-**d-i**
      no.longer PREV-PREV-I-(it)SV-raise-TS-**IMPF-INDIC (=COND)**
      "If I were you, I would not make another sound."(Hewitt 1995:586)

As I mentioned above (section 4.2.1.2), the Georgian protasis normally contains a present subjunctive form, but when a verb lacks this form, the aorist subjunctive is used instead. In (77), we thus have a present tense marker and a modal element ((aorist) subjunctive suffix) in the protasis, and only a modal marker in the apodosis (i.c. a conditional marker with modal meaning (see (65) for further discussion)). In Georgian and Somali, the present counterfactual protases thus contain more markers than the apodoses.

In the remaining seven languages, the opposite is the case, in that the present counterfactual apodoses contain more markers than the protases. All these languages contain only modal marking (see section 4.2.1.1.2), or combine modal marking with past tense marking (see section 4.2.1.3). Also Tiriyó (Meira 1999) shows this type of asymmetrical marking, as it has the irrealis marker in the apodosis (in addition to the hypothetical marker serving as a counterfactual conjunction) and no relevant marker in the protasis (see example (73) in section 4.2.1.4). Again, all the languages have modal marking at least in the apodosis. In Hmong Njua (Harriehausen 1988) and Cantonese (Matthews & Yip 1994), the modal element always occurs in the apodosis while the

protasis does not contain any relevant marker - apart from a possible conditional conjunction or a conditional marker functioning as a conjunction (see examples (61) and (62) in section 4.2.1.1.2 respectively). In West Greenlandic (Fortescue 1984), the protasis contains one pure modal element, whereas the apodosis combines a pure modal element with a future tense marker with a modal flavour (see example (64) in section 4.2.1.1.2).

Three out of the five languages using the 'modal with past' pattern also have more markers in the apodosis than in the protasis. In fact, they all combine modal marking with past tense marking in the apodosis. In Supyire (Carlson 1994), the protasis does not contain any relevant marker, as can be seen in example (69) in section 4.2.1.3 above. In Dutch and Angolar Creole Portuguese (Lorenzino 1998), the protasis contains past tense marking. Consider (78), which may be interpreted as a past or present counterfactual conditional.

(78) Ami **ta**   **ka** taba fazEnda   ANGOLAR CREOLE PORTUGUESE

      1SG **ANT IRR** work plantation

      <u>**Ola**</u>   ma pagamEntu E   ta   maSi bwara

      when   salary   DEM be-**PST** more good

      "I would work on a plantation if the salary was higher." (present)

      "I would have worked on a plantation if the salary were higher." (past) (Lorenzino 1998:170-86c)

Here, the protasis verb is marked for past tense, and the apodosis contains the modal element **ka** and the anteriority marker **ta**. In Dutch, Angolar Creole Portuguese and Supyire, the apodosis of present counterfactual conditionals thus contains both modal and past tense marking, whereas the protasis has either no relevant marking or only past tense marking.

4.2.2.3. Conclusion

In conclusion, the languages for which I found data on present counterfactual conditionals predominantly use asymmetrical marking in protasis and apodosis: only

two languages show complete symmetry between protasis and apodosis. This goes against the tendency noted by Haiman & Kuteva (2002) towards symmetry in counterfactual conditionals. Within the pattern of asymmetrical marking, we further distinguished three subpatterns. Two languages were shown to have the same number but different types of markers in the protasis and apodosis. Two other languages have more markers in the protasis than in the apodosis. In the remaining seven languages, the apodosis contains more markers than the protasis. In the case of asymmetrical marking, therefore, counterfactual apodoses typically contain more markers than their protases.

As to the types of markers, it has become clear that modal marking always occurs at least in the apodosis if the construction uses modal marking at all. Present tense marking is found in both the protasis and apodosis, and in the protasis only. Finally, past tense marking occurs in both the protasis and apodosis, or in one of them only. The following table shows which languages show symmetrical marking and which asymmetrical marking. I also indicated where the relevant markers occur.

4.3. Complex counterfactuals with past temporal reference

Table 6 above showed that past counterfactual conditionals were found in far more languages than present counterfactual conditionals. More specifically, I came across complex counterfactual constructions referring to a past situation in thirty-seven out of the forty-one grammars consulted. As in the discussion of the present counterfactual conditionals above, I will first present which types of markers are involved (section 4.3.1), and further discuss how the relevant markers are distributed over the protasis and the apodosis (section 4.3.2).

4.3.1. The markers of past counterfactual conditionals

Whereas in the present counterfactual conditionals only three patterns of marking could be distinguished, many more patterns can be found in their past counterparts. Roughly speaking, a distinction can be made between 'major' patterns used by eight languages on average, and 'minor' patterns of marking, found in only one or at most three languages. First these major patterns will be discussed, and afterwards the minor ones. Table 10 below presents the various patterns of marking and shows which languages use which pattern(s). In the following discussion I will again ignore conditional conjunctions or conditional mood markers with a conjunction function, bearing in mind, however, that the protasis as a whole might function as a modal element modifying the State of affairs referred to in the matrix clause. However, some languages use conjunctions that are specifically counterfactual: these will be treated after the minor patterns. Further, I will only take the different types of markers into account. The number of markers and the way they are distributed over the protasis and apodosis will be dealt with in 4.3.2.

4.3.1.1.One single marker

A first major pattern found in the data involves only one type of marker, and is used in five out of thirty-seven languages. As with present counterfactual conditionals, a distinction can be made between markers that are used exclusively in counterfactual contexts and those that can be used in other modal environments as well. In the first case, we have direct counterfactual marking; in the latter case we have modal marking.

4.3.1.1.1.Direct counterfactual marking

Two languages use one specific marker that occurs only in counterfactual utterances, and can therefore be said to encode counterfactuality directly. The languages in question are Chukchi (Dunn 1999) and Hua (Haiman 1980). No examples of the construction in Chukchi were available, but Dunn (1999:189) explicitly notes that the conditional mood prefix "can mark both the condition and the consequent of an action/event". The same conditional prefix was found in simple counterfactual constructions, which have direct counterfactual marking as well (see section 3.2.1). An example of Hua is given below.

(79) <u>korihu-</u>**hipana**   via   ta-**sine**   HUA
      run away-1SG.**CTF(PROT)**   tears shed-2SG.**CTF(APOD)**
      "If I had run away, you would have cried." (Haiman 1980:185)

The Hua[21] structure in (79) uses only counterfactual markers. The protasis suffix is -**hipana,** analysed by Haiman (1980:185-86) as bimorphemic, consisting of the relativised form of -**hine₃** (-**hipa'₃**) and **na,** ('thing') the unmarked noun which acts as a head NP. It thus has both a modal meaning (-**hine₃**) and a conjunction function (the relativised form **-hipa'₃** in combination with **na**). The suffix -**sine** in the apodosis is the

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[21] In an alternative past counterfactual conditional construction in Hua, the apodosis also has the counterfactual marker -**hine₃**, but the protasis is construed as a medial clause, with a medial auxiliary signalling that the subclause assumes the mood marking of the main clause. In this way, the protasis is - indirectly - also marked for counterfactual mood (Haiman 1980:406).

allomorph of the counterfactual marker -hine₃, used when the subject is first person plural or second person singular (1980:x1). Thus, in Chukchi and Hua, past counterfactual conditionals use direct counterfactual markers.

4.3.1.1.2. Only modal marking

Three languages also use only one type of marker, but unlike in the previous section this marker is used in non-counterfactual contexts as well. In this pattern found in Amele (Roberts 1987), Mekens (Galucio 2001) and Muna (Van den Berg 1989), the markers are always of a modal type. Consider the Muna structure below.

(80) **ane** pa   na-mai   kapala, pa   a-k[um]ala   MUNA
      if   FUT.not 3.SG.**IRR**-come ship   FUT.not 1SG.**IRR**-go
      "If the ship won't come, I won't go."
      "If the ship hadn't come, I wouldn't have gone." (Van den Berg 1989:259-215)

The utterance in (80) may be interpreted as either hypothetical or counterfactual, as can be inferred from the translations provided by the author. The modal element present in the construction is the irrealis mood, which is expressed by a paradigm of subject markers that are prefixed to the verb. It should be noted, however, that in Muna the irrealis mood is obligatory in negative clauses, and that in (80) the two clauses combined in a complex sentence both are negative. It is thus unclear whether the irrealis mood is used only because the clauses are negative, or also because they form a counterfactual construction. Arguably, this may explain why Van den Berg (1989) gives two translations of the same sentence. I then assume that in the second translation, the irrealis marker both is required by the negator and gives a modal meaning to the utterance.

Another language that uses only modal marking in past complex counterfactuals is Mekens (Galucio 2001). Here, however, different modal markers are involved, as can be seen in the following example.

(81) se-aso   **pegat   eteet** ikão   MEKENS

      3C-bathe   **IRR.FUT   could**   that.time

      se-aso-a   **kot-kaat   aabese**

      3C-bathe-THEM **FUT-DESID**.3   **if/when**

      "He could have bathed at that time, if he wanted to bathe." (Galucio 2001 :122-

      22a)

In (81), the modal elements are the irrealis future particle **pegat**, the modal particle **eteet**
translated by 'could' or 'would', and the future tense marker **kot** which combines with
the suffix **-kaat** to form a desiderative particle. All these elements are purely modal or
have at least a modal flavour. In this construction, therefore, Mekens uses only one type
of marker. In an alternative construction, it uses a combination of a modal marker with a
past tense element, which will be discussed below (see section 4.3.1.4).

        Finally, the counterfactual conditional construction in Amele (Roberts 1987) uses
modal marking as well. An example is given below.

(82) dalum aig   eu   cenal   batac na   AMELE

      gourd   seed that Tahitian chestnut branch on

      tao-**u**-b   **mi**   ija   no-i

      stand-**CTF**-3SG **CTF** 1SG come down-PRED

      mede-mi   geh   bahic ce-b   cal   mo-**u**-m

      nose-1SG.POS much very   DS-3SG dead become-**CTF**-1SG

      "If that gourd seed had been on the Tahitian chestnut branch it would have come

      down and really hit my nose and I would have died." (Roberts 1987:271-522)

In (82), the suffix -**u** is the "contrafactual mood marker" (Roberts 1987:271) and the
particle **mi** is a clause-final contrafactual mood particle functioning as subordinating
conjunction. As mentioned above (see example (41) in section 3.2.5), the contrafactual
mood marker also occurs in non-counterfactual deontic contexts, for example in
utterances such as *you should give him back his axe*. Therefore, it does not encode
counterfactuality directly, but has a (deontic) modal meaning (Roberts 1987:270).

In conclusion, in five languages past complex counterfactual constructions use only one type of marker, which can occur either only in counterfactual environments, or in other contexts as well. The first type of marker encodes counterfactuality directly and is used in two languages. In the latter case, we have only modal marking, a pattern that is found in three languages. In fact, there are two further languages that use only one type of marker, but in these languages the marker is perfect(ive) rather than counterfactual or modal. This pattern will be treated in section 4.3.1.6, which discusses minor patterns of marking.

4.3.1.2. Modal marker and perfect(ive) element

Another major pattern of marking found in past counterfactual conditionals is the combination of a modal element with a perfect(ive) element. As was the case in simple constructions (see section 3.2.3), this perfect(ive) element may be a perfective aspect marker, a perfect participle or an inherent feature of a pluperfect tense. Again, I will treat both types of aspect marking together, so as to keep the number of patterns of marking as small as possible. Moreover, actions marked for perfective aspect, which construes a situation as a single complete whole, are very often regarded as completed and having continuous relevance, and thus get a perfect interpretation. Although perfective actions are not necessarily interpreted that way, I decided to treat perfect and perfective aspect together.

In sixteen out of thirty-seven languages, past counterfactual conditionals contain a modal marker which is accompanied by at least a perfect(ive) element. In six out of sixteen languages, a modal and a perfect(ive) element are the only relevant markers, viz. in Kashmiri (Wali & Koul 1997), Nama Hottentot (Hagman 1973), Pipil (Campbell 1985), Tibetan (Denwood 1999), West Greenlandic (Fortescue 1984) and Slave (Rice 1989). In another construction of Slave and in ten further languages, the modal marker and the perfective element are accompanied by yet another type of marker, more precisely a past tense marker. This pattern will be discussed in the next section. In what follows I will restrict myself to the six languages mentioned above.

In three languages, the modal marker accompanied by a perfect(ive) element is a pure modal element. The languages in question are Kashmiri (Wali & Koul 1997), Pipil (Campbell 1985) and West Greenlandic (Fortescue 1984). Examples are given below.

(83) **agar** ni   tem'   madad a:sihe: kor-**mut**   KASHMIRI

      if   not   he.ERG   help   had[be].**COND**   did-**PFP**

      bi   a:siha: ni   ka:miya:b sapd-**mut**

      I   had[be].**COND** not success   be-**PFP**

      "If he had not helped, I would have not found success." (Wali & Koul 1997:74-26a)

(84) yaha ahsi-**tu**-**skiya**,   ni-k-taxta :wih-**tu-skiya**   PIPIL

      he   arrive-**PFP-COND** I-him-pay-**PFP-COND**

      "Had he come, I'd have paid him." (Campbell 1985:135-2)

(85) danskit uqaasi-I-nik   WEST GREENLANDIC

      Danes   language-their-INSTR

      ilikka-laa-**riirsima**-su-u-**gutta**

      have.learnt-a bit-**already**-INTR.PART-be-1PL.**COND['if']**

      ilikka-lirtur-niru-**qqajaqi**-agut

      have.learnt-fast-more-**would**-1PL.INDIC

      "If we had (only) learnt a bit of Danish already, we would have learnt faster." (Fortescue 1984:66)

In the Kashmiri utterance in (83), the modal element is the conditional mood marker which varies with person, number and gender, and occurs in simple utterances as well (see example (25) in section 3.2.3). The perfect(ive) element is the perfect participle marker -**mut** attached to the main verb (Wali & Koul 1997:230-38). The same goes for the Pipil example (84), where the conditional marker **-skiya** is a modal element as well (see example (18) in section 3.1 for a simple utterance), and the perfect(ive) element is also a perfect participle marker, i.c. the suffix **-tu**. In West Greenlandic, however, the conditional marker has a conjunction function since it occurs only in conditional

protases. The modal element in (85) is the suffix -**qqajaqi,** which is glossed as 'would', and the perfective element is the suffix -**riirsima**, which indicates an action completed prior to some reference point (Fortescue 1984:278).

In two languages, the modal marker is a future tense marker with a modal flavour. Both in Slave (Rice 1989) and in Tibetan (Denwood 1999), one of the relevant constructions involves a future tense marker in combination with a perfect aspect marker. As Denwood (1999:140-169) notes, in Tibetan the past tense marker alternates with the perfect aspect marker in the protasis, whereas in the apodosis, the perfect aspect marker alternates with the future tense marker. One of the four logical possibilities thus involves the combination of a perfect aspect marker with a future tense element, but I did not come across a specific example of this construction in Denwood (1999). For the Slave construction, however, I did find the following example.

(86) <u>ʔeyi chu ʔénehká   sekóé</u>   SLAVE

    it   and   1SG.chopp**ed** down   1SG.house

    <u>níanila   loo   **t'áh**</u>   nezu   **olí**

    1SG.**brought** back.PL O   EVID   **because['if']**   3.is good   **FUT**

    "It would have been good if I had chopped them down and brought them back to my house." (Rice 1989:410-53)

In (86), we find the future tense particle **olí**, which is the optative verb form of the verb theme **0-le** 'be'. However, when it occurs with a conditional subclause marked for perfective mode, it expresses an unrealised action in the past (Rice 1989:418). The perfective mode markers in the construction are glossed as the past tense forms of the verbs on which they occur.

Finally, in Nama Hottentot (Hagman 1973) it is not very clear what type of marker it is that is combined with a perfective aspect marker in past counterfactual conditionals. Hagman calls it an "indefinite tense" marker, since the verb phrase containing such a marker "describes an event whose time of occurrence is indefinite, and, hence, the occurrence of the event itself is indefinite" (1973:122). Consider the following example.

(87) <u>=xaríróse-ku</u>   **kà**   !ʼãu **hãá**   **ʻoo**-ku   NAMA HOTTENTOT

   a little bit-M.PL **INDEF**   wait **PERFV** **if**-M.PL

   kà   !xóó-hè   tama **hãá**

   INDEF catch-PASS NEG   **PERFV**

   "If they had waited a bit, they would not have been caught." (Hagman 1973:238)

Since the indefinite tense marker signals that the occurrence of the event referred to in the utterance is not definite, in other words, that it is not sure whether it will take place, the marker may have an epistemic modal meaning. It certainly is not a future tense marker, because futurity is expressed by the particle **nìí** (Hagman 1973:120). Apart from the indefinite tense particles, the sentence also contains the particle **hãá**, which encodes perfective aspect. It can thus be concluded that in Nama Hottentot, past complex counterfactuals contain a modal marker in combination with a perfective element.

In summary then, in six out of thirty-seven languages, the only or one of the possible constructions used to form past counterfactual conditionals contains a modal marker in combination with a perfect(ive) element. In three languages, the modal element was shown to be purely modal; in two languages the perfect(ive) element was found to combine with a future tense marker with a modal flavour. For Nama Hottentot, it was argued that the indefinite tense may have a modal flavour as well. In one of the constructions in Slave, and in ten other languages, the modal marker and the perfect(ive) element are combined with yet another type of marker, more precisely a past tense marker. This pattern will be discussed below.

4.3.1.3.Modal marker combined with perfect(ive) and past element

A third major pattern found in the data is used by eleven out of thirty-seven languages and involves the presence of a modal marker combined with both a perfect(ive) element and a past element. As in the chapter on simple counterfactual constructions (see section 3.2.4), the pluperfect tense is regarded as a combination of past tense and perfect aspect, as it is used to temporally locate an event anterior to a past reference point (Dahl 1985:144-46).

In seven out of eleven languages, the modal marker is purely modal in nature. The languages in question are Burushaski (Berger 1998), Georgian (Hewitt 1995), Korean (Sohn 1994), Ma'di (Blackings & Fabb 2003), Nootka (Davidson 2002), Supyire (Carlson 1994) and Slave (Rice 1989). Three languages have a pluperfect tense that comprises the past and perfect element, namely Burushaski, Georgian and Korean. Examples are given below.

(88) (**ágar**) un dukóowám **ke** un jáa oósin gumáimce (no glosses)   BURUSHASKI

  "If you had come, you would have been my guest." (Berger 1998:197-16.54)

(89) gusin   **rom** (?Ø-)e-c'vim-**a**[22],   GEORGIAN

  yesterday **if**   (it)IOV-rain-?it(**PLUP**)

  sin   da-v-rc-eb-**od-i**

  at.home PREV-I-remain-TS-**IMPF-INDIC (=COND)**

   "If it had rained yesterday, I would have stayed at home." (Hewitt 1995:586)

(90) Minca-ka   w-**ass-ess-umyen**   KOREAN

  Minca-NOM come-**PST-PST-if**

  kath-i   nol-**ass-ul**   **they-n-tey-yo**

  together play-**PST-PROS** **supposedly**-POL

  "If Minca had come, (I) would have played together with (her)." (Sohn 1994:75-148b)

In (88), only the conditional conjunction **ágar** and the conditional mood marker **ke** are boldfaced. Since Berger (1998) did not provide any glosses in his grammar of Burushaski, I can only rely on his account. He notes that in counterfactual utterances, the protasis contains a pluperfect tense, and the apodosis a conditional mood marker, which has a modal meaning since it occurs in simple sentences as well (1989:164). The Georgian sentence in (89) has exactly the same construction as Burushaski, with a

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[22] As mentioned above, in Hewitt (1995:586) the example is given like this, with a question mark in both the example and the gloss. I could not find what it stands for, but it does certainly not represent a glottal stop.

pluperfect tense encoded by the suffix –**a**, and a conditional mood marker formed by adding the imperfect (-**od**) indicative (-**i**) to the base of the future indicative (Hewitt 1995:237-38). Finally, one of the two constructions in Korean illustrated in (90) involves the pluperfect tense formed by the repetition of the past tense marker **-ess** or **-ass**, and a modal element, such as the adverbial meaning 'supposedly'[23] in combination with the prospective marker **-ul** (Sohn 1994:75). Apart from the pluperfect tense, yet another past element is present in the construction.

In the four other languages with a pure modal marker, the perfect(ive) element and past element are not combined in a pluperfect tense. Consider the following examples.

(91) ʔeyi ʔayeht'í **nidé** natsiowi gha íle **ilé sóni**   SLAVE
     there 1SG.**was if** 3.occur COMP NEG **PST UC**
     "If I had been there, it might not have happened." (Rice 1989:1053-30)

(92) Ku **ná m-pyi** màràfáyì yi mpyi bòmpilá à   SUPYIRE
     It **CTF.COND**-be guns they were baboons.DEF to
     wùù mú 'lémú **mpyi gú** m-pì nínjáà de!
     our also appearance **PST POT** FP-be.ugly today EXCLM
     "If the baboons had had guns, say, we would have been in sorry state today."
     (Carlson 1994:578-72)

(93) caq-sa'p=**a:'h=(m)it**=(m)a'=ah   NOOTKA
     on.end–CAUS.**PERFV=IRR=PST**=INDIC=1SG
     sut-(c)il[L] qʷa-mihsa**=(m)it**=**qu:**=s
     2SG–do.to do.thus–want.to=**PST=COND**=1SG
     "I would have set you on end if I had wanted to." (Davidson 2002:315-472a)

In the Slave example in (91), the perfective element is the perfective mode, which is glossed in this example as the simple past form of the verb on which it is marked (i.c.

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[23] In combination with the prospective marker **-ul**, the adverbial with the evidential meaning 'supposedly'

was). The modal element in the construction is **sóni**, the marker of uncertainty, and past meaning is expressed by the particle **ilé**. In the Supyire construction exemplified in (92), the perfective element is optional and in this case it is not present in the utterance (Carlson 1994:578). The past tense marker in (92) is the past tense copula **mpyi**, and the modal marker is **gú**, the epistemic modal auxiliary encoding potentiality (1994:357). In the Nootka structure in (93), there are even two modal elements in the utterance, but one, the irrealis clitic =**a:'h**, is optional. The other modal element is the conditional clitic =**qu:**, which has a modal meaning rather than a conjunction function since it occurs in simple constructions as well (see example (27) in section 3.2.3). The perfective element is a perfective aspect marker, which is expressed by suffix -**sil** or its allomorphs, or is inherent in the meaning of a lexical suffix added to the verb or of the verbal root itself. In this sentence, perfectivity is a matter of such a lexical suffix, as can be inferred from the gloss. Finally, the past element is the relative past tense clitic =**(m)it**. Slave, Supyire and Nootka still have other types of constructions used to form past counterfactual conditionals. The alternative construction in Slave has already been discussed in section 4.3.1.2 (see example (86)). The other alternative constructions will be dealt with below.

Finally, the construction used in Ma'di deserves a more elaborate treatment. As already explained above (see example (30) in section 3.2.4), the relevant elements in one of the simple counterfactual constructions sometimes encode more than one meaning. The same elements occur in the past complex counterfactual construction, as is exemplified below.

(94) **téè**   **dì**   m´-e-dzé   údí   rì   **rá**   MA'DI
    earlier today **this**   1SG-VE-buy new(S) DEF **AFF**

    kesú nì   fo   má   ní   rá   `   ʔi
    [**if**   2S.DIR say 1SG BEN AFF] SPEC FOC

    "By now I could certainly have bought a new one, had you told me." (Blackings & Fabb 2003:538-359)

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gets an epistemic meaning.

This utterance contains an uninflected verb form, which is a past form, and the marker of certainty **rá**, glossed as AFF (affirmative), which forces a perfective interpretation of the verb phrase when the verb is in the uninflected form (Blackings & Fabb 2003:451-459). As I mentioned above, the term 'uninflected' may be confusing, since the verb is glossed as being inflected for a first person subject (as in **m´-e-dzé**). Apart from the uninflected verb form and the particle **rá**, we also find the complex adverbial **téè dì**, which shifts the temporal reference of the clause to the past and adds a modal force. Past meaning is thus encoded by the uninflected verb form and the complex adverbial; modal meaning is encoded by the marker of certainty and by the adverbial as well. Finally, the adverbial **kesú** functions as a conditional conjunction and often, though not necessarily, shifts the point of temporal reference into the past (2003:495). In the Ma'di example, we thus find a modal, past and perfective element, though not as straightforwardly as in other languages.

Further, four languages do not have a pure modal marker, but a future tense marker which arguably has some modal flavour. In most of the constructions in Dutch, in one of the constructions in Supyire (Carlson 1994), in Lezgian (Haspelmath 1993) and in Malayalam (Asher & Kumari 1997), past complex counterfactuals contain a future tense marker, a past tense marker and a perfect(ive) element. In Dutch, pluperfect tense alternates with future perfect in the past in both protasis and apodosis. Since the future perfect in the past contains a future, past and perfect element, Dutch uses this pattern in three out of the four logically possible constructions. In the following examples, I include only one of the constructions used in Dutch.

(95) **Als** je   goed ge-luister-d **zou**   **hebb-en**,   DUTCH
     if   you well listen-**PFP** **FUT.AUX.PST**.2SG **have-INF**

     zou   je   het ge-wet-en **hebb-en**
     FUT.AUX.PST.2SG you   it   know-**PFP** **have-INF**

     "If you had listened well, you would have known (it)." (my example)

(96) **Ámpyi** u   **mpyi** **à**   pa,   SUPYIRE
     if.CTF he **PST** **PERF** come

     mìi **mpyi** **na**   **sí** ù   bwòn

I   **PST   PROG FUT** FP.him hit

"If he had come, I would have hit him." (Carlson 1994:571-54d)

(97) **Eger** am   naq'   ata-**na-j-t'a**,   LEZGIAN

      if   she:ABS yesterday come-**AOR-PST-COND['if']**

      za   am   vokzal.d-a   gürüsmis iji-**da-j**

      I:ERG she:ABS station-INESS meeting   do-**FUT-PST**

      "If she had arrived yesterday, I would have met her at the station." (Haspelmath 1993:396-1102)

(98) aval nallavannam pathicc-**irunn-enkil**   MALAYALAM

      she well   study-**PERF$_1$.PST-COND['if']**

      jayikk-**um**-aay-**irunnu**   (my glosses)

      pass-**FUT**-[linking -aay-][**PERF$_1$**.]**PST**

      "If she had studied well, she would have passed." (Asher & Kumari 1997:89-414)

In the Dutch example, we find the future perfect in the past, formed by a periphrastic construction consisting of the simple past form of the future tense auxiliary (**zou**), and the perfect infinitive of the main verb. The perfect infinitive of a verb consists of the perfect participle of that verb and the infinitive of the auxiliary that verb takes to form its perfect tenses. In (95), both verbs are conjugated in the perfect tenses with the auxiliary **hebben** ('have'). In this construction, we thus find the three elements constituting the pattern being discussed. In the Supyire structure in (96), the three types of markers are present as well. As mentioned above (see example (69) in section 4.2.1.3), Supyire encodes a future in the past meaning by means of the past tense marker **mpyi**, the progressive aspect marker **na** and the future tense marker **sí**. The utterance further also contains the perfect tense marker **à**. The past counterfactual utterance in Lezgian in (97) contains the same markers as its present counterpart, as already discussed above (see example (68) in section 4.2.1.3). Lezgian thus does not formally distinguish between present and past counterfactual conditionals, which both contain the future tense marker -**da**, the past tense marker **-j** and the aorist tense marker -**na**, which

is used to refer to perfective events in the past and is thus best regarded as a perfective element (Haspelmath 1993:142-43). The utterance also contains the conditional marker **-t'a**, but I assume it has a conjunction function rather than a modal meaning, since it only occurs in subordinate environments (Haspelmath 1993:345-47, 394-99, 425-427). In Malayalam, the 'conditional' marker also has a conjunction function, since it is used exclusively to signal conditional protases (Asher & Kumari 1997:87-90). Further, the sentence in (98) contains the future tense marker -**um** and the suffix -**irunn(u)**, which fuses the perfect aspect marker and the past tense marker (Asher & Kumari 1997:292). We thus find the three types of markers present in the pattern under discussion in Malayalam as well.

Finally, in Basque (Saltarelli 1988) and in an alternative construction in Nootka (Davidson 2002), we find both a pure modal and a future tense marker, accompanied by a past tense marker and a perfect(ive) element. Consider the following examples.

(99) atzo   etorr-**i**   (**iza-n**)   **ba**-l-**i**-tz   BASQUE
yesterday come-**PFP** (**be-PFP**) [**COND**]['**if**']-3ABS-**PST**-AUX1
aiton-amon-ak   ikusi-**ko**   z-it-u-**zke-en**
grandparent-PL.ABS see-[**FUT**] 3SG.ERG-(PST-3ABS)-A.P-AUX2-**POT-PST**
"If s/he had come yesterday, s/he would have seen the grandparents." (Saltarelli 1988:233-1018d)

(100) li-**cil='i:k=(m)it**=qa'   NOOTKA
shoot–**PERFV=FUT=PST**=SUBOR
ʔu-yi   pu'na'kʷ-(q)h=(**m)it=qu:**
so.and.so–at.X.time['if'] gun–have–while=**PST**=**COND**
"... that they would have shot if they had guns." (Davidson 2002:321-486)

The Basque structure in (99) contains a future tense marker (-**ko**) and a modal element, the potential marker -**zke**. The conditional prefix **ba**- occurs only in conditional protases and thus has a conjunction function rather than a modal meaning. Further, the two auxiliaries are marked for past tense by the suffix **-e/i(n)**, and the main verb in the protasis occurs in perfect participle form. The perfect participle of the auxiliary 'be',

however, is optional. The construction in Nootka in (100) contains a future tense marker and a modal marker as well, combined with a past tense marker and a perfect(ive) element. Future tense is coded by the clitic **='i:k**, past tense by the clitic **=(m)it**, and perfective aspect is expressed by the suffix **-cil**. The modal element is the conditional marker, which has a modal meaning unlike the conditional marker in Basque. As I mentioned above, the conditional clitic =**qu:** also occurs in simple counterfactual utterances, which suggests it has a modal meaning rather than a conjunction function (see example (27) in section 3.2.3).

In conclusion, in eleven languages, the only one, or sometimes two or three of the constructions used to form past counterfactual conditionals contain at least a modal element, a past tense marker and a perfect(ive) element. The pluperfect was assumed to combine past tense and perfect aspect. In seven languages, the modal element was shown to be purely modal. Four languages used a future tense marker with a modal flavour and in two languages the relevant construction was found to contain both a pure modal element and a future tense marker. Nootka and Supyire were shown to use two constructions which follow a different subpattern within this major pattern. With eleven out of thirty-seven languages using this pattern, it may be regarded as a rather important one. The cross-linguistically most frequent one, however, will be treated in the next section.

4.3.1.4. Modal marker and past element

From a cross-linguistic perspective, the pattern involving the combination of a modal marker and at least a past tense element appears to be the dominant one in the formation of past counterfactual conditionals. In twenty-five out of thirty-seven languages, the only - or one of the constructions - use a modal element in combination with a past tense marker. In some languages, past complex counterfactuals contain a modal marker and past element, combined with a perfect(ive) element. This pattern has already been discussed in 4.3.1.3 and will not be taken up again in this section. In fifteen out of thirty-seven languages, however, a modal marker is found together with a past tense element, and sometimes yet another type of marker, different from a perfect(ive) element. These languages will be dealt with in this section.

In eight out of fifteen languages, the modal element accompanied by a past tense marker is a pure modal marker. The languages in question are Angolar Creole Portuguese (Lorenzino 1998), Gooniyandi (McGregor 1990), Hdi (Frajzyngier 2002), Koasati (Kimball 1991), Korean (Sohn 1994), Tiriyó (Meira 1999)[24], Turkish (Kornfilt 1997) and Wardaman (Merlan 1994). A few examples are given below.

(101) barlanyi mila-**ya-ala**   GOONIYANDI
      snake   see-**SUBJ-IRR**+(1SG)N+A
      mangaddi mood-**gila-rni**
      not   step:on-**IRR**+(1SG)N+A-**POT**
      "Had I seen the snake, I wouldn't have stepped on it." (McGregor 1990:432-5.397)

(102) Ohayyì   mí:taka-p   iltóhno-li-**má:li**-t   KOASATI
      Year   last-NEW:TOP   work-1SS-**MODAL**-CONN
      ná:s-on   có:pa-li-**t**
      something-OBJ:FOC buy-1SS-**PST**
      "Were I to have worked last year, I would have bought something." (Kimball 1991:198-263)

(103) **bujun yayi**-0-jingi-**ndi**   gonjon   wu-boban   WARDAMAN
      if   **IRR**-3SG-be-**PST** ground-ABS WU-dry-ABS
      yingarr-yan**ggi**-wan   ngala wonggo yi-ngarr-ya
      IRR-1IN.PL-go-**PST**-DF but   NEG   IRR-1IN.PL-go-PRES
      "If the ground had been dry we would have gone, but we can't go." (Merlan 1994:188-429)

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[24] As discussed in the section on present counterfactual conditionals, the past counterfactual conditional in Tiriyó has a posteriority marker in the protasis, in addition to an irrealis particle and a hypothetical marker which was argued to serve as a counterfactual conjunction. The terminology is a bit confusing, as the posteriority marker actually indicates that the action in the protasis is anterior to the one in the apodosis (Meira 1999:339). Therefore, Tiriyó also uses the 'modal with past' pattern.

In the Gooniyandi[25] example in (101), we find the irrealis tense, glossed as IRR, which can be analysed as a past tense (see examples (44) and (45) in section 3.2.5, Verstraete 2004). The modal elements are the subjunctive mood marker -**ja** and the potential mode marker **–rni**. In Koasati in (102), the modal element is the suffix -**má:li**, which indicates either that the action is unrealised or that the action is the only one possible under the circumstances (Kimball 1991:198). The utterance further contains the past tense suffix -**t**. The Wardaman sentence in (103) also has past tense suffixes (-**ndi** or **–rri** or their allomorphs), and the modal element is the irrealis mood prefix which varies with the subject person prefix. In these three examples, we thus find a pure modal marker accompanied by a past tense marker, as is the case in Angolar Creole Portuguese and Turkish.

In Hdi (Frajzyngier 2002) and Korean (Sohn 1994), the relevant construction contains yet another type of marker, in addition to the pure modal marker and the past element. Consider the following utterances.

(104) **Má   tà**   hlgà-f-**tá**-tsí   kdá   HDI

   HYP IMPF plant-UP-**REF**-3SG   last year

   má   màmú skw-à   z-áy

   HYP exist   thing-GEN eat-PO

   "Had he planted last year, he would have had food." (Frajzyngier 2002:498-64)

(105) ney-ka   w-**ass**-**te**-**la**-**myen**   KOREAN

   you-NOM come-**PST**-**RET**-**DC**-**if**

   kath-i   nol-**ass**-**ul**   **ke**   **y-a**

   together play-**PST**-**PROS** **fact** be-**INT**

   "If you had come, (I) would have played together with you." (Sohn 1994:75-148c)

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[25] Another counterfactual conditional construction in Gooniyandi has a generic sense. "It may be used in referring to general truths, relating to the past, which no longer hold […] and for which the antecedent is represented as never having occurred" (McGregor 1990:432). In these constructions, the apodosis has definite present marking (1990:433). Since it is used in referring to general truths which usually do not have specific temporal reference, I ignored this generic construction in this study.

In the Hdi example in (104), we find the hypothetical marker **má**, and generally also the referential past tense marker **si**. The latter is optional, however, when other elements indicating past are present, such as **kdá** ('last year'). Further, the utterance contains yet another type of marker, the imperfective aspect marker **tà**. The referential marker **tá** signals the protasis of the complex sentence, and thus functions as a conjunction. In the Korean structure in (105), the third type of marker involved is the retrospective quotative marker **-te-la**, which has an evidential meaning. Past tense is coded by the suffix **-ass** and the modal meaning is expressed by the morphemes **-ul ke y-a**, meaning 'would probably do or be…' (Sohn 1994:74-75). In the past counterfactual conditionals in Hdi and Korean, we thus find an imperfective aspect marker and an evidential marker respectively, in addition to a pure modal marker and a past tense element.

Whereas in roughly half of the relevant languages the modal element is a pure modal marker, in six languages it is a future tense marker with a modal flavour and in one language, we find both a pure modal marker and a future tense element. The six languages which use a future tense marker in combination with a past element are Fongbe (Lefebvre & Brousseau 2002), Hmong Njua (Harriehausen 1988), Supyire (Carlson 1994), Tibetan (Denwood 1999), Vai (Welmers 1976) and Vietnamese (Dinh-Hoà 1997). The Vai construction has already been discussed above (see example (70) in section 4.2.1.3), since Vai does not formally distinguish between present and past counterfactual conditionals. The relevant constructions used by some of the other languages are illustrated below.

(106) **Yog** ntuj **tau** lug naaj peb **yuav** ntub   HMONG NJUA
     COMP sky **PST** come rain 1PL **FUT** wet
     "If it had rained, we would have got wet." (Harriehausen 1988:243-460c)

(107) U **ná á nì** pa, mìi **mpyi na sí** ù bwòn   SUPYIRE
     He **CTF** come I **PST** **PROG FUT** FP.him hit
     "If he had come, I would have hit him." (Carlson 1994:576-68)

(108) **Nêu** có tiên,   VIETNAMESE
     if have money

thì chúng tôi **dã** **se** mua cái nhà ây.

then we   EXCL **ANT FUT** buy CL house that

"If we had had money, we would have bought that house." [But we don't have money.] (Dinh-Hoà 1997:248-31)

In the Hmong Njua example in (106), we find the past tense particle **tau** and the future tense particle **yuav** in the past counterfactual conditional. In Supyire, as already discussed above (see example (96) in section 4.3.1.3), future in the past meaning is encoded by the combination of the past tense marker **mpyi**, the progressive marker **na** and the future tense marker **sí**. Present counterfactual conditionals also contain these markers. Finally, in the Vietnamese utterance in (108) we find the preverb **se** encoding future tense, and the preverb **dã** coding anteriority (Dinh-Hoà 1997:186). These preverbs are actually adverbs, but since they function as determiners that precede the verb, they are called 'preverb'. In Hmong Njua, Supyire and Vietnamese, the only or one of the possible constructions used to form past counterfactual conditionals thus contains a future tense marker and a past tense element, as do the relevant constructions in Fongbe, Tibetan and Vai.

Finally, in an alternative construction in Mekens (Galucio 2001) both a pure modal marker and a future tense marker are present, combined with a past tense element. An example is given below.

(109) kiri=eri=ep   ka-**t**   te   te   MEKENS

child=ABL=really go/come-**PST** truly FOC

se-poetop   eat   **pegat**   **eteet**

3C-knowledge acquire **IRR.FUT** **would**

"If it had been really since childhood, then I would have learned." (Galucio 2001:71-54e)

In this construction we find the irrealis future tense particle **pegat**, which has some modal flavour, and the modal particle **eteet**. The suffix -**t** is used to encode past tense. This type of construction thus contains a past element combined with both a pure modal marker and a future tense marker with a modal flavour.

In conclusion, about two thirds of the languages from which I have relevant data form past counterfactual conditionals by means of a modal marker combined with at least a past element. This means that it is the cross-linguistically most frequent pattern. In some languages, a third type of marker is also involved, such as a perfect(ive) element, an imperfective aspect marker or an evidential marker. Further, about half of the languages using this pattern were shown to have a pure modal element that is accompanied by a past element; the other half of the languages discussed use a future tense marker with a modal flavour in combination with a past tense marker. In one language, both a pure modal and a future tense marker were found to combine with past tense marking. From the discussion above, we may conclude that there is a cross-linguistic preference to use a modal marker combined with a past element in past counterfactual conditionals.

4.3.1.5. Past tense marker and perfect(ive) element

A fourth and final major pattern differs from the four major patterns discussed above in that it does not contain any modal element apart from the protasis, which may modalise the apodosis. More specifically, there are six languages that can form past complex counterfactuals by means of a past tense marker and a perfect(ive) element. These can combine in a pluperfect tense (see section 4.3.1.3), or they can occur independently from each other.

In three languages, viz. Burushaski (Berger 1998), Georgian (Hewitt 1995) and Dutch, one of the possible constructions involves at least a pluperfect tense. As I discussed above, I regard the pluperfect tense as a combination of past tense and perfect aspect (see section 4.3.1.3). In Burushaski, yet another type of marker is involved, viz. an imperfective tense marker which has a past continuous or past habitual meaning (1998:161). Further, Georgian (Hewitt 1995) and Dutch have similar constructions in that only the pluperfect tense is used, both in protasis and apodosis. Consider the following examples.

(110) akhóle apáyam **ke** ye ho guírcóm   BURUSHASKI

   "If I had not been here, you would have died." (Berger 1998:197-16.56)

(111) <u>sen</u>   **rom** ar   c'ar-g-e-kez-eb-**in-e**,   GEORGIAN

   you.DAT **if**   not PREV-you-IOV-encourage-TS-**PLUP**-IND.1SG

   i+kn+eb(+a) ar   ga-m-e-k'et-eb-**in-**a

   perhaps   not PREV-I-IOV-do-TS-**PLUP**-it

   "If you had not encouraged me, perhaps I would not have done it." (Hewitt 1995:268)

(112) **Had**   ik het ge-wet-en,   DUTCH

   have.PST.1SG I   it   know-**PFP**

   dan **was**   ik ge-kom-en

   then **be.PST**.1SG I   come-**PFP**

   "If I had known, I would have come." (my example)

In Burushaski, the protasis always contains a pluperfect tense, as was mentioned above (see example (88) in section 4.3.1.3). Instead of a conditional mood marker, the apodosis may also contain an imperfective tense marker, as is the case in (110). The particle **ke** signals the protasis and thus has a conjunction function. Again, no glosses are given, since Berger (1998) did not provide any in his grammar. In the Georgian utterance in (111), we find the pluperfect tense twice, expressed by a paradigm of subject markers that are suffixed to the verb (Hewitt 1995:266-67). The same goes for one of the four possible constructions in Dutch, which is illustrated in (112). The utterance contains a pluperfect tense, formed by a periphrastic construction consisting of the simple past form of the auxiliary which the main verb takes to form perfect tenses (**zijn** ('be') or **hebben** ('have')), and the perfect participle of that main verb, glossed as PFP. Burushaski, Georgian and Dutch thus use a construction involving - at least - a pluperfect tense to form a past counterfactual conditional.

In the three other languages, the past tense marker and the perfect(ive) element do not combine into a pluperfect tense. More precisely, this is the case in one of the constructions in Malayalam (Asher & Kumari 1997) and Tibetan (Denwood 1999), and in the past counterfactual conditional in Lango (Noonan 1981). Examples are given below.

(113) <u>sman.   'di. bzas.**pa.yin.na**</u>   TIBETAN

    medicine this [eat.**PST**]-**LINK**-**AUX**[**PST**]-**SUBOR**

    gzugs.po. bde.po   chags   bsdad.**yog.red**

    body   well-NOML   become   stay-**AUX**[**PERF**]

    "If I had taken this medicine, I would have got better" (Denwood 1999:160)

(114) **kónô òwòngò**   àtíé   I   cEm,   LANGO

    if   3SG-find-PERFV 1SG-be+present-**HAB**   with food

    kónô àmíyí

    then 1SG-give-**PERFV**-2SG

    "If I had food, I would have given it to you." (Noonan 1981:170-3)

(115) <u>avan poo-y-**irunn**-ill-**enkil**</u>   MALAYALAM

    he   go-[linking -y-]**PERF₁**[.**PST**]-NEG-**COND['if']**

    naan avaneyum   ksanicc-**eene** (my glosses)

    I   he-ACC-also invite-**PST**

    "I would have invited him too if he had not gone." (Asher & Kumari 1997:89-416)

In the Tibetan structure in (113), we find a past auxiliary marker and a perfect auxiliary marker suffixed to the main verbs. In Lango, tense is not marked on the verb, but may be expressed by means of auxiliaries. The verb form **òwòngò** in (114), for instance, is the third person singular perfective form of the verb **nwòngngò** ('find') serving as an auxiliary to form a past or pluperfect tense. In this case, i.e. combined with the habitual form of the main verb, it results in a simple past (Noonan 1981:32-38). The main verb in the apodosis is marked for perfective aspect, whose default interpretation is that of past tense. The alternative construction in Malayalam exemplified in (115) contains a perfect aspect marker and past tense marker fused in the suffix –**irunn(u)**, which also occurred in the construction in (98) above (see section 4.3.1.3), and the particle **eene**, which is glossed as past, but whose specific function is not that clear. Asher & Kumari (1997:89) only mention that the particle can occur in a counterfactual apodosis.

Assuming that it is glossed correctly, I conclude that Malayalam follows the pattern under discussion, as do Tibetan and Lango.

In conclusion, the final major pattern does not involve a modal marker in addition to the protasis as a whole, but only has a past tense marker and a perfect(ive) element. In three languages, these markers form a pluperfect tense, in the other three languages, the two types occur independently from each other. With six out of thirty-seven languages following the pattern, this type of construction may be considered as rather important, though obviously not as dominant as the one discussed in the previous section. In the light of the relevance of modality, however, the general lack of a modal element (except for the presence of a protasis) is theoretically significant, as I will discuss in the concluding section.

4.3.1.6.Minor patterns used to form past counterfactual conditionals

Apart from the five major patterns discussed above, which together account for thirty-two out of thirty-seven relevant languages, I further encountered three 'minor' patterns, used by only one or two languages. One of them contains a modal element; two, however, do not. In what follows I will briefly discuss these three minor patterns.

A first pattern involves the combination of a past tense marker and a habitual aspect marker, which is found in Lavukaleve (Terrill 2003). Consider the following example.

(116) <u>aka   kini   taaveua-re-a   la</u>   LAVUKALEVE

     then   ACT   be.missing-NFIN-SG.F   SG.F.ART

     <u>o-e-sia-**le**</u>,   o-vea   ma-**me**

     3SG.F.OBJ-SBD-do-**POT['if']**   3.SG.F.OBJ-know   3PL.S-**[PST-]HAB**

     "If [anything] was missing, they would have known it (but it never was)." (Terrill 2003:436-816)

The verbal suffix -**le** signals potential adverbial clauses and thus has a conjunction meaning. Whereas the habitual aspect marker is present in the utterance (viz. the habitual auxiliary –**me**), the past tense marker is not, although there are reasons to

assume that the temporal reference of (116) is past. First, in Lavukaleve past tense is not morphologically marked on the verb, but expressed by zero. Moreover, tense categories are not obligatory in contexts in which they are semantically appropriate and they cannot be combined with aspect or mood markers, such as habitual aspect (Terrill 2003:323-330). Finally, since Terrill makes a formal distinction between hypothetical and counterfactual conditionals, and since habitual marking can occur in both hypothetical and counterfactual conditionals and is thus not responsible for the distinction between these two types of conditionals, I assume past counterfactual conditionals contain a zero-realisation of the past tense morpheme in addition to habitual aspect marking.

In the linguistic literature, the habitual has often been described as a modal "swing category", which shows features of the modal and non-modal domains (Bybee et al. 1992, Givón 1994). As Givón points out, "from a communicative perspective, habitual-marked clauses tend to be strongly asserted, i.e. pragmatically like realis. Semantically, however, they resemble irrealis in some fundamental ways" (1994:270). A habitual-marked proposition, for instance, does not refer to any specific event that took place at a specific time. Further, "the reference properties of NPs under the scope of habitual resemble those of NPs under the scope of irrealis", i.e. they may be interpreted as non-referring, whereas under the scope of realis, they must be interpreted as referring (1994:270). This "hybrid" nature of the (past) habitual may explain why it is reminiscent of counterfactual utterances and why some languages group it with realis (i.e. by its pragmatic features) and others with irrealis (i.e. by its semantic features) (Givón 1994:270-71, 322). Further, Haiman & Kuteva (2002:119) also note that there is a morphological parallel between habitual aspect marking and counterfactuality marking in many languages, and they hypothesise that "counterfactual mood" is polysemous in that it also denotes habitual aspect. Finally, Ziegeler (1995:320) argues that an utterance marked for past habitual implicates that the SoA referred to in the utterance does not take place anymore: "the meaning of discontinuity of a past habitual situation carries […] an implicature of present irrealis", i.e. a counterfactuality implicature. This implicature may be cancelled and is thus not part of the basic meaning of the utterance marked for past habitual. From the discussion above, we can conclude

that the exceptional use of habitual marking in counterfactual conditionals in Lavukaleve might be motivated in semantic-pragmatic terms.

A second minor pattern involves only a perfect(ive) element. As was mentioned above, in Tibetan (Denwood 1999) past tense alternates with perfect aspect in the protasis and the latter alternates with future tense in the apodosis (1999:156-60) (see section 4.3.1.2). One of the four logical possibilities thus involves a perfect aspect marker in both protasis and apodosis, so that the construction contains only one type of marker. The relevant construction in Cantonese (Matthews & Yip 1994) is similar to Tibetan, but differs in that the only marker that may be considered to be relevant in past counterfactual conditionals is optional rather than obligatory. In fact, Cantonese does not formally distinguish between hypothetical and counterfactual conditionals. Usually it is the context that makes clear which type of conditional is involved, although some of the conjunctions are explicitly hypothetical (Matthews & Yip 1994:302). In some past complex counterfactual constructions, however, I did find a perfective aspect marker. Compare (117) with (118).

(117) **yùhgwó** ngóh mh   jidou **ge wá**,   CANTONESE

       if   I   not-yet know **LP say**

       jauh mh gám daaih-seng gong la

       then not dare big-voice   say   PRT

        "If I hadn't known, I wouldn't have said it so loud." (Matthews & Yip 1994:302)

(118) **yùhgwó** móuh   ngóh,   CANTONESE

       if   not-have me

       léih yíhging séi-**jó**   hóu loih la!

       you already die-**PERFV** very long PRT

       "If it was't for me, you would have been dead long ago!" (Matthews & Yip 1994:304)

Both utterances are past counterfactual conditionals, but (117) does not contain any relevant marker (what is boldfaced is the complex conditional conjunction), whereas (118) has the perfective aspect marker -**jó**. In Cantonese, the perfective aspect marker is

thus optional, whereas in one of the four past complex counterfactual constructions in Tibetan, the perfect aspect marker is obligatory.

Finally, a third minor pattern was found in three languages, where the relevant constructions use an evidential element combined with at least a modal marker. In Kolyma Yukaghir (Maslova 2003), Korean (Sohn 1994) and Slave (Rice 1989), past counterfactual conditionals have an evidential marker in the protasis, while the apodosis contains at least a modal element. As was mentioned above (example (105) in section 4.3.1.4), Korean uses a construction with a past retrospective quotative in the protasis and a modal element accompanied by a past tense marker in the apodosis. (105) is repeated as (119) below.

(119) ney-ka   w-**ass**-**te**-**la**-**myen**   KOREAN
        you-NOM come-**PST-RET-DC-if**
        kath-i   nol-**ass-ul**   **ke**   **y-a**
        together play-**PST-PROS fact   be-INT**
        "If you had come, (I) would have played together with you." (Sohn 1994:75-148c)

The past retrospective quotative marking **-ass-te-la** is derived from **-ass-te-la-ko ha** (PST-RET-DC-QT say) and means 'if it is said that (he) had done or been…' (Sohn 1994:74). According to Sohn, "the retrospective mood denotes a situation where one recalls a fact that one has witnessed, thus associated with such meanings as 'I saw (observed, experienced) that…' in declaratives and 'did you see (observe, experience) that…?' in interrogatives" (1994:342). The retrospective quotative can thus be regarded as evidential in meaning. In Slave, one complex counterfactual construction also contains an evidential marker, as was already mentioned in the chapter on methodology (see example (10) in section 2.2). The utterances containing a future tense marker and an optional perfective mode marker all have the evidential/dubitative particle **ló (loo, lóó, lo, no, nó)** as well. Consider the following two examples.

(120) megháehnda íle   **lo**   **nidé** dahetla   **olí**   SLAVE
        1SG.see.3   NEG [**EVID/DUB**] if   3.is loose **FUT**
        "If I hadn't seen him, he would have gotten loose." (Rice 1989:1053-33)

(121) Ɂeyi chu Ɂénehká   sekóé   SLAVE

    it   and 1SG.chopp**ed** down 1SG.house

    níanila   **loo   t'áh**   nezu   **olí**

    1SG.brought back.PL.O **EVID because['if']** 3.is good **FUT**

    "It would have been good if I had chopped them down and brought them back to

    my house." (Rice 1989:410-53)

These utterances contain the evidential/dubitative particle **lo/loo** and the future tense marker **olí,** while the protasis verbs are optionally marked for perfective mode, which is glossed as the simple past form of the verb on which it is marked. This construction was already dealt with in section 4.3.1.4, but no attention was paid to the presence of the evidential/dubitative particle. It could, however, be argued that the evidential marker is also a relevant marker in the past complex counterfactual construction.

    Whereas Korean and Slave use a major pattern along with the evidential marker, the past counterfactual construction in Kolyma Yukaghir only contains a modal marker in combination with an evidential marker. An example is given below.

(122) tat   uj-t   zad'i-t   KOLYMA YUKAGHIR

    CA work-SS:IMPF be.greedy-SS:IMPF

    m-**et**+el'ed'o-jek   el+kes'i-**l'el'nide**

    AFF-**IRR**+disappear-INTR:2SG   NEG+bring-**INFR-SS:COND['if']**

    "Working in such a way, you would have ruined yourself by greedyness, if you

    had not brought it back." (Maslova 2003:397-710c)

In Kolyma Yukaghir, the protasis verbs of conditional constructions are converbs, which end in **-nide** if the protasis has the same subject as the apodosis, and in **-ge-ne** if the protasis subject differs from the apodosis subject. In (122), the protasis further contains the inferential suffix -**l'el**, whose meaning may be that of a hearsay evidential. The inferential form may also be used "to render information inferred on the basis of some other facts" (Maslova 2003:173). Finally, the utterance also contains the irrealis prefix **-et**, which also occurs in simple counterfactuals and has a modal meaning (see

example (22) in section 3.2.1). Past counterfactual conditionals in Kolyma Yukaghir thus only contain a modal marker accompanied by an evidential element; the relevant constructions in Korean and Slave also use other types of markers, and further belong to the patterns discussed above.

In summary, apart from the five major patterns discussed in the previous sections, we also distinguished three minor patterns of marking. Past counterfactual conditionals may contain a past tense element combined with a habitual marker, as is the case in Lavukaleve. A second minor pattern involved only a perfect(ive) element, and was found in Cantonese and Tibetan. Finally, in three languages the past counterfactual conditional contains an evidential marker. In Kolyma Yukaghir, we only found an evidential marker in combination with a modal element. Slave and Korean, however, already use a major pattern of marking, the 'modal with perfect(ive)' and 'modal with past' pattern respectively.

4.3.1.7.Counterfactual conjunctions

In the discussion above, I distinguished five major and three minor patterns of marking found in past counterfactual conditionals. However, there is one language that uses a construction that has not been accounted for so far. More precisely, Mangap-Mbula (Bugenhagen 1995) forms past counterfactual conditionals by means of specifically counterfactual correlative conjunctions. As in the discussion of present counterfactual conditionals, we left the conjunctions (and the conditional mood markers functioning as conjunctions) out of consideration, but Mangap-Mbula is special in that it uses conjunctions to distinguish between hypothetical and counterfactual conditionals.

In Mangap-Mbula (Bugenhagen 1995), hypothetical conditionals have the conjunction **so (=(m)be)** in the protasis, while the apodosis is introduced by either **(i)nako** (**(i-na** (given information marker) + **ko** (uncertainty marker)) or **(to)na** ((**to** ('then') + **na** (given information marker)) (1995 :276-77). Counterfactual conditionals equally have **so (=(m)be)** in the protasis, but they have **so** in the apodosis. The two types of conditionals are illustrated below.

(123) **So-mbe** posop uraata, **ina-ko** an-giim=u. MANGAP-MBULA
      Say-NF 2SG-finish work **GIV-UC** 1SG-buy=ACC.2SG
      "If you finish the work, then I will pay you." (Bugenhagen 1995:277-55)

(124) **Be/So (=(m)be)** ti-posop uraata, **so** an-giimi zin. MANGAP-MBULA
      NF/say=NF 3PL-finish work **say** 1SG-buy ACC-3PL
      "If they had finished the work, I would have paid them." (Bugenhagen 1995:277-56)

As is made clear by the translations, (123) is hypothetical and (124) is counterfactual. In both protases we find **so (=(m)be)**[26]. **-So** is a verb meaning 'to say, think, suppose, want' and it may be inflected to agree with the subject of the protasis. When it occurs without subject agreement morphology, it is no longer verbal, but a modal adverb ('if') (Bugenhagen 1995:276). Since it does not occur in simple sentences and is translated with 'if', I assume that **so** has a conjunction function rather than a modal one. The apodoses, however, are introduced by different conjunctions. In the hypothetical construction, it is the conjunction **inako** that introduces the apodosis, whereas in the counterfactual conditional we find the conjunction **so**. In Mangap-Mbula, the correlative conjunctions thus distinguish between hypothetical and counterfactual conditionals.

Apart from Mangap-Mbula, there are five other languages that have a different conjunction for hypothetical and counterfactual conditionals, but all of these have already been dealt with under the major patterns discussed above. The languages in question are Amele (Roberts 1987), Georgian (Hewitt 1995), Lango (Noonan 1981), Supyire (Carlson 1994) and Tiriyó (Meira 1999). In Amele, conditional protases are marked by clause-final particles. Hypothetical protases are signalled by the particle **fi**, whereas counterfactual ones contain the particle **mi** (Roberts 1987: 263-72). As already mentioned above (see section 4.2.1.4), Georgian distinguishes between real, unreal and mixed conditions. Real conditional protases are introduced by **tu** ('if') and have non-subjunctive protasis and apodosis verbs. Unreal protases are marked by the conjunction

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[26] The presence of the non-factual complementiser **=(m)be** freely fluctuates with its absence (Bugenhagen 1995:276).

rom ('if') and contain a subjunctive form or a pluperfect marker. The apodosis has a conditional form. Finally, mixed conditionals are combinations of real protases with unreal apodoses or vice versa, and may be introduced by both **tu** and **rom** (Hewitt 1995:583-588).

Further, in Lango the distinction between hypothetical and counterfactual conditionals is also marked by the conjunction used, in addition to the clause-internal markers already discussed. Hypothetical protases are introduced by the conjunction **ká** ('if'), whereas both counterfactual protases and apodoses are introduced by the conjunction **kónô** (Noonan 1981:169-70). As was mentioned above (see section 4.2.1.4), Supyire has many conditional conjunctions, some of which are restricted to counterfactual protases: **ámpyi**, **kámpyi**, **ná m-pyi** and **ná á nì** (Carlson 1994:570-78). Finally, for Tiriyó (Meira 1999) it has already been shown that the hypothetical marker in counterfactual apodoses arguably has a counterfactual conjunction function (see examples (73) and (74) in section 4.2.1.4 for further discussion). The relevant constructions in Amele (see example (82) in section 4.3.1.2), Georgian (see examples (89) and (111) in section 4.3.1.3 and 4.3.1.5 respectively), Lango (see example (114) in section 4.3.1.5), Supyire (see examples (92) and (96) in section 4.3.1.3 and (107) in section 4.3.1.4) and Tiriyó (examples (73) and (74) in section 4.2.1.4) have already been treated above in the discussions of the major patterns. In addition, they also distinguish between hypothetical conditional conjunctions and counterfactual ones, as is the case in Mangab-Mbula.

4.3.1.8.Conclusion

In the discussion above, I distinguished five major patterns as well as three minor ones found in past counterfactual conditionals. As to the major patterns, a distinction was made between languages using only one single marker and those using a combination of markers. When a particular language uses one single marker, I investigated whether that marker can also occur in non-counterfactual contexts with a non-counterfactual meaning. In case the marker can only occur in counterfactual environments, I concluded that it marks counterfactuality directly. In the other case, it is a modal marker that can be used in other modal contexts as well. In two languages, I found direct counterfactual

marking; three languages use only modal marking. The four other major patterns all use a combination of markers. In six languages, past counterfactual conditionals combine a modal marker with a perfect(ive) element only. In eleven languages, the only - or one possible - construction contains a modal marker, a perfect(ive) element and a past tense marker. The most frequent pattern combines a modal marker with a past element only, and is used in fifteen languages. Finally, the pattern using a past tense marker in combination with a perfect(ive) element is found in six languages. Apart from these five major patterns, I also distinguished three minor patterns. One language combines a past tense marker with a habitual element, two languages use only perfect(ive) aspect marking, and three languages use a combination of evidential marking with at least modal marking. Finally, I discussed six languages that make a distinction between hypothetical and counterfactual conjunctions. The findings on the formal marking of past counterfactual conditionals are summarised in the following table, with grey shading meaning that the marker in question is used in a particular language. If a certain language uses more than one pattern, each pattern gets another line.

Language		Direct ctf marking	Imperf element	Modal marker	Past tense element	Perfect(ive) element	Evid marker	Ctf conj
Amele				■				■
Angolar				■	■			
Basque				■	■	■		
Burushaski				■	■	■		
			(imperf tense)		■	■		
Cantonese						(optional)		
Chukchi		■						
Dutch				■	■			
					■	■		
Fongbe				■	■			
Georgian				■	■	■		■
					■	■		■
Gooniyandi				■	■			
Hdi			■	■	■			
Hmong Njua				■	■			
Hua		■						

Language		1	2	3	4	5	6	7
Kashmiri				▓		▓		
Koasati				▓	▓			
Kolyma Yukaghir				▓			▓	
Korean				▓	▓			
				▓	▓		▓	
Lango					▓			▓
Lavukaleve					(& hab el)			
Lezgian				▓	▓			
Ma'di				▓	▓			
Malayalam				▓	▓			
				▓	(& particle)			
Mangab-Mbula								▓
Mekens				▓				
				▓	▓			
Muna				▓				
Nama Hottentot				▓		▓		
Nootka				▓	▓			
				▓	▓			
Pipil				▓		▓		
Slave				▓		▓	▓	
				▓	▓			
Supyire				▓	▓			▓
				▓	▓			▓
Tibetan				▓	▓			
				▓		▓		
					▓	▓		
						▓		
Tiriyó				▓	▓			▓
Turkish				▓	▓			
Vai				▓	▓			
Vietnamese				▓	▓			
Wardaman				▓	▓			
West Greenlandic				▓		▓		

Table 11: The markers of counterfactuality in past complex constructions

4.3.2. Where do the markers of counterfactuality occur?

In the discussion above, I distinguished five major patterns of marking found in past counterfactual conditionals, as well as three minor patterns, and I devoted a section to specifically counterfactual conjunctions. I sometimes mentioned which markers occur in the protasis and which in the apodosis, though not systematically. In this section I will discuss how the relevant markers are distributed over the protasis and apodosis in the different patterns. Some languages have more than one construction, which means that they use different patterns, possibly also in a different distribution. In what follows, I will first deal with the languages that have symmetrical marking in protasis and apodosis in 4.3.2.1. Contrary to the cross-linguistic tendency towards symmetrical marking suggested by Haiman & Kuteva (2002), however, there are in fact many more languages that have asymmetrical marking in protasis and apodosis. These will be discussed in 4.3.2.2. As to the distribution of types of markers, it will become clear that modal marking almost always occurs at least in the apodosis, if the construction in question contains modal elements at all. Past tense marking occurs most often in both protasis and apodosis. Perfect(ive) apsect marking occurs as often in both protasis and apodosis as only in the protasis. Past tense marking and perfect(ive) aspect marking can also occur in the apodosis only.

4.3.2.1.Symmetrical marking in protasis and apodosis

As already mentioned above, past counterfactual conditionals were found in thirty-seven grammars. Since some of the languages use more than one construction, I came to a total sum of fifty-three constructions, but because some of the different constructions used in one language nevertheless show the same distribution of markers over protasis and apodosis, I found forty-five different constructions. In fifteen languages, at least one past complex counterfactual construction has symmetrical marking in protasis and apodosis. In what follows, I briefly discuss some examples of this pattern.

The languages showing symmetrical marking in protasis and apodosis use four of the five major patterns distinguished in the previous section, as well as the minor pattern

involving a perfect(ive) element only (viz. Tibetan (Denwood 1999)). Mangap-Mbula (Bugenhagen 1995) also uses symmetrical marking in that the counterfactual conjunction is correlative (i.e. occurring in both the protasis and the apodosis). The major pattern that is not used by any of them is the one that combines a modal marker with a perfect(ive) and past element.

A language that uses direct counterfactual marking with the counterfactual element occurring in both the protasis and the apodosis is Hua (Haiman 1980). Example (125) repeats example (79).

(125) <u>korihu-**hipana**</u>   via   ta-**sine**   HUA

run away-1SG.**CTF(PROT)**   tears   shed-2SG.**CTF(APOD)**

"If I had run away, you would have cried." (Haiman 1980:185)

In this utterance, we find the counterfactual marker -**hine** in both the protasis and apodosis. As was already discussed above, the suffix -**hipana** is analysed as bimorphemic, consisting of the relativized form of -**hine₃** (-**hipa'₃**) - the counterfactual marker - and **na,** ('thing') the unmarked noun which acts as a head NP (Haiman 1980:185-86). The combination of **na** with the relativised form has a conjunction function ('thing that'), which can be compared to the *time-when* pattern in English, as, for instance, in *by the time when he got up, all the work had already been done*. In the apodosis, the suffix -**sine** is used, which is an allomorph for second person singular. We thus find a counterfactual marker in both clauses of the complex sentence. The other language using the 'direct counterfactual marking' pattern, Chukchi (Dunn 1999), has symmetrical marking in protasis and apodosis as well. The three languages that use only modal marking, Amele (Roberts 1987), Mekens (Galucio 2001) and Muna (Van den Berg 1989), also have symmetrical marking. The construction in Mekens does not have exactly the same markers in protasis and apodosis, but they all are of a modal type. The languages using direct counterfactual or only modal marking thus all use symmetrical marking.

Languages using more than one type of marker to form past counterfactual conditionals sometimes use symmetrical marking as well. In these cases, all the markers involved occur in both the protasis and the apodosis. In three of the languages using the

'modal with perfect(ive)' pattern, for instance, both the protasis and apodosis contain a modal marker combined with a perfect(ive) element. We found this pattern in Kashmiri (Wali & Koul 1997), Nama Hottentot (Hagman 1973) and Pipil (Campbell 1985). The Pipil example given in (84) is repeated below.

(126) yaha ahsi-**tu-skiya**,   ni-k-taxta :wih-**tu-skiya**   PIPIL

      he   arrive-**PFP-COND**   I-him-pay-**PFP-COND**

      "Had he come, I'd have paid him." (Campbell 1985:135-2)

Clearly, the perfect participle marker -**tu** and the conditional mood marker -**skiya**, which has a modal meaning rather than a conjunction function, occur in both clauses of the complex construction. As can be seen in examples (83) and (87) in section 4.3.1.2 respectively, the relevant constructions in Kashmiri and Nama Hottentot also have a modal marker accompanied by a perfect(ive) element in both protasis and apodosis. Further, three out of fourteen languages that use the 'modal with past' pattern equally have the same markers in the two clauses of the past complex counterfactual construction. The languages in question are Gooniyandi[27] (McGregor 1990), Turkish (Kornfilt 1997) and Wardaman (Merlan 1994), which all have a modal marker combined with a past element in both the protasis and the apodosis. Finally, two languages that use the 'past with perfect(ive)' pattern have symmetrical marking in protasis and apodosis as well. Both Georgian (Hewitt 1995) and Dutch allow for a construction with a pluperfect tense in both protasis and apodosis. Past tense and perfect(ive) aspect marking thus always occurs in the two clauses of the complex construction.

In conclusion, fifteen languages use at least one construction to form past counterfactual conditionals that has the same number and types of marker(s) in the protasis and the apodosis. These languages were shown to use four out of the five major

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[27] As is the case in Mekens (Galucio 2001), the modal elements used in the past counterfactual conditional in Gooniyandi (McGregor 1990) are different markers as well (viz. a subjunctive mood marker in the protasis and a potential mode marker in the apodosis). In the discussion of the distribution of markers, however, I only take the type of markers into account, and not whether they are actually the same elements.

patterns distinguished. No languages using the 'modal combined with past and perfect(ive)' pattern were found to have symmetrical marking. Finally, one of the relevant Tibetan constructions has a perfect element in both clauses of the complex sentence, and in Mangap-Mbula both protasis and apodosis are introduced by a counterfactual conjunction. These, however, are only minor patterns of marking.

4.3.2.2.Asymmetrical marking in protasis and apodosis

Whereas one third of the constructions found use symmetrical marking in protasis and apodosis, two thirds - or thirty constructions - show asymmetrical marking. Contrary to the argument in Haiman & Kuteva (2002) that languages tend to use symmetrical marking in counterfactual conditionals, therefore, the majority of languages in the sample do not use the same number and types of markers in protasis and apodosis. As in the discussion of present counterfactual conditionals above (see section 4.2.2.2), I will again make a distinction between three different types of asymmetrical marking. A first type involves an equal number of markers in both the protasis and apodosis, but the relevant markers are of a different type. A second type has more markers in the protasis than in the apodosis, and in a third type, it is the apodosis that contains more markers than the protasis.

The first type of asymmetry is found in at least one construction type in eleven languages. In these constructions, the protasis and apodosis contain the same number of markers, but they differ in type. In all but one language, modal marking invariably occurs in the apodosis. The exception is Koasati (Kimball 1991), which has a modal suffix on the protasis verb and a past tense suffix on the apodosis verb, as can be seen in example (102) above (see section 4.3.1.4). As for past tense and perfect(ive) aspect marking, these can occur in the protasis, in the apodosis or in both. In Hmong Njua, for instance, the past complex counterfactual construction contains the past tense marker **tau** in the protasis and a future tense marker with a modal flavour (**yuav**) in the apodosis, as can be seen in (127). Vai (Welmers 1976), Tiriyó (Meira 1999) and one of the constructions in Tibetan (Denwood 1999) also have past tense marking in the protasis and modal marking in the apodosis.

(127) **Yog**　　ntuj　**tau**　　lug　　naaj peb　**yuav** ntub　　　　　　　　Hmong Njua

　　　COMP sky　**PST**　come rain 1PL　**FUT**　wet

　　　"If it had rained, we would have got wet."　(Harriehausen 1988:243-460c)

As to the patterns of marking, the languages that show this first type of asymmetrical marking may use all the major patterns except the pattern of one single marker. Of the minor patterns, only Kolyma Yukaghir (Maslova 2003) shows this type of asymmetrical marking, having an evidential marker in the protasis and a modal element in the apodosis. The relevant languages that use the 'modal with past' pattern are Vai (Welmers 1976), Tiriyó (Meira 1999), Tibetan (Denwood 1999), Koasati (Kimball 1991) and Hmong Njua (Harriehausen 1988), which were already mentioned above. Further, two languages following the 'modal with perfect(ive)' pattern have the aspect marking in the protasis and the modal marking in the apodosis. This is the case in West Greenlandic (Fortescue 1984) (see example (85) in section 4.2.1.2) and one of the constructions in Tibetan (Denwood 1999). Two languages following the 'modal combined with past and perfect(ive)' pattern have both perfect(ive) aspect and past tense marking in the protasis, and both modal marking and past tense marking in the apodosis. The languages in question are Korean (Sohn 1994) and Lezgian (Haspelmath 1993) (see examples (90) and (97) in section 4.3.1.3 respectively). Finally, three languages with counterfactual conditionals using the 'past with perfect(ive)' pattern also have the same number in the protasis and the apodosis, but of different types. In Lango (Noonan 1981) and one of the constructions in Tibetan (Denwood 1999), the protasis contains past tense marking and the apodosis perfect(ive) aspect marking (see examples (114) and (113) in section 4.3.1.5 respectively). In the relevant construction in Malayalam (Asher & Kumari 1997), however, it is the protasis which contains perfect(ive) aspect marking, combined with past tense marking, whereas the apodosis is marked for past tense and contains the particle **-eene(e)** (see example (115) in section 4.3.1.5 for further discussion). Thus, the past counterfactual conditional constructions that have the same number of markers in the protasis and in the apodosis use four out of the five major patterns distinguished, and if they contain a modal marker, it almost always occurs in the apodosis.

The second type of asymmetry involves more relevant markers in the protasis than in the apodosis, and is found in at least one construction in six different languages. As with the previous category, in all but one language, modal marking occurs in the apodosis if the construction uses modal markers at all. Past tense and perfect(ive) aspect marking is found most often in the protasis. Again, the relevant languages may use all the major patterns except the pattern of one single marker. The only language using the 'modal with perfect(ive)' pattern, for instance, is Slave (Rice 1989), which has one construction that uses both an optional perfective marker and an evidential marker in the protasis, and only a modal element in the apodosis (see example (86) in section 4.3.1.2). Further, three languages using the 'modal combined with past and perfect(ive)' pattern have more relevant markers in the protasis than in the apodosis. In Burushaski (Berger 1998) and Georgian (Hewitt 1995), the protasis always has perfect aspect marking and past tense marking, whereas the apodosis only contains modal marking (see examples (88) and (89) in section 4.3.1.3 respectively). In the relevant Dutch construction, on the other hand, it is the apodosis that is marked for both perfect aspect and past tense, but the protasis has even more markers, as it contains a future perfect in the past. An example is given below.

(128) **Als** ik het **zou** ge-wet-en **hebb-en**,   DUTCH
    If I it **FUT.AUX.PST**.1SG know-PFP **have-INF**

    was ik ge-kom-en
    be.PST.1SG I come-**PFP**

    "If I had known it, I would have come." (my example)

In this example, the protasis is marked for the future perfect in the past since it contains the past tense form of the future auxiliary (**zou**) and the perfect infinitive of the main verb **weten**, formed by the perfect participle of the main verb and the infinitive of the auxiliary it takes to form its perfect tenses, i.c. **hebben**. The apodosis, however, has one marker less, as it is in the pluperfect, which is formed by the perfect participle of the main verb and the simple past form of the auxiliary it takes to form its perfect tenses, i.c. **zijn**. Note that in this utterance, the modal element occurs in the protasis. Clearly the Dutch example and the Burushaski and Georgian construction using the 'modal

combined with past and perfect(ive)' pattern have more types of markers in the protasis than in the apodosis.

As to the other major patterns, I briefly mention that in two languages using the 'modal with past' pattern the protasis contains more markers than the apodosis. This is the case in Hdi (Frajzyngier 2002) and Korean (Sohn 1994). Finally, the construction in Burushaski (Berger 1998) that uses the 'past with perferct(ive)' pattern also has more markers in the protasis than in the apodosis (see example (110) in section 4.3.1.5). The type of asymmetrical marking involving more markers in the protasis than in the apodosis is thus found in languages using any of the major patterns distinguished, except for the 'one single marker' pattern.

Finally, the third type of asymmetrical marking with more markers in the apodosis than in the protasis is the dominant type of asymmetrical marking, as it occurs in at least one construction in thirteen languages. As to the types of markers, modal marking always occurs in the apodosis if the construction contains modal elements at all. Past tense marking is very often found in both the protasis and apodosis, or in the apodosis only. Perfect(ive) aspect marking occurs most often either in the protasis or in the apodosis, but rarely in both. As to the patterns of marking, the languages with more markers in the apodosis than in the protasis use either the 'modal with past' pattern or the 'modal combined with past and perfect(ive)' pattern. As to the minor patterns, this type of asymmetrical marking is found in Lavukaleve (Terrill 2003), which arguably has both past tense marking and habitual marking in the apodosis, whereas the protasis does not contain any relevant marker (see example (116) section 4.3.1.6). In Cantonese (Matthews & Yip 1994) the apodosis may contain an optional perfective aspect marker, whereas the protasis does not contain any relevant marker either (see example (118) section 4.3.1.6).

Focusing on the major patterns, only two of them are used by languages that have more markers in the apodosis than protasis. Five languages using the 'modal with past' pattern have at least modal marking in the apodosis. In four languages, the apodosis contains past tense marking as well. The protasis either has past tense marking, or does not contain any relevant marker at all. These four languages are Angolar Creole Portuguese (Lorenzino 1998), Fongbe (Lefebvre & Brousseau 2002), Supyire (Carlson 1994) and Vietnamese (Dinh-Hoà 1997). Finally, one of the constructions in Mekens

(Galucio 2001) has past tense marking in the protasis and two modal markers in the apodosis (see example (109) in section 4.3.1.4). Further, seven languages using the 'modal combined with past and perfect(ive)' pattern have at least modal marking combined with past tense marking in the apodosis. Most often, the protasis contains past tense marking, sometimes combined with perfect(ive) aspect marking or modal marking. In the Malayalam utterance in (129), for instance, both the protasis and the apodosis have perfect aspect marking and past tense marking (-**irunn**), but the apodosis contains one extra marker, more precisely the future tense marker -**k**. As was explained above, the conditional mood marker **-enkil** has a conjunction function (see example (98) in section 4.3.1.3).

(129) <u>maza peyt-**irunn**-**enkil**</u>   MALAYALAM

      rain   fall-**PERF$_1$.PST-COND['if']**

      naan puratte   poo-**k**-illa-ay-**irunnu** (my glosses)

      I   outside go-**FUT**-NEG-[linking -ay-][**PERF$_1$**.]**PST**

      "If it had rained, I should not have gone out." (Asher & Kumari 1997:89-413)

The other six languages that use the 'modal combined with past and perfect(ive)' pattern and have more markers in the apodosis than in the protasis are Basque (Saltarelli 1988), Dutch, Nootka (Davidson 2002), Ma'di (Blackings & Fabb 2003), Slave (Rice 1989) and Supyire (Carlson 1994). This type of asymmetrical marking is thus found in languages that use the 'modal with past' or 'modal combined with past and perfect(ive)' pattern. The apodosis almost always contains both modal and past tense marking.

In conclusion, three types of asymmetrical marking were presented, which together account for thirty constructions. Within asymmetrical marking, the pattern involving more markers in the apodosis than in the protasis was shown to be the most frequent type, as it is used by thirteen out of the thirty relevant languages. In eleven of the relevant languages, the past counterfactual conditionals were shown to have as many markers in the protasis as in the apodosis, but of a different type. Finally, in six languages, more markers were found in the protasis than in the apodosis. The languages showing asymmetrical marking never mark counterfactuality with one single marker, as this pattern is restricted to the symmetrical construction type.

4.3.2.3.Conclusion

Focusing on where the relevant markers present in past counterfactual conditionals occur, I distinguished between symmetrical and asymmetrical marking in protasis and apodosis. Fifteen - or one third - of the constructions found showed symmetrical marking with the same number and types of markers in protasis and apodosis. It is remarkable that all languages which encode counterfactuality with one single marker use symmetrical marking. Two thirds of the constructions found, on the other hand, use asymmetrical marking. This clearly contradicts Haiman & Kuteva's (2002) claim that there is a tendency to use the pattern of symmetrical marking in counterfactual conditionals. I further distinguished three types of asymmetrical marking. The dominant subpattern was shown to use more markers in the apodosis than in the protasis. Further, the subpattern using the same number of markers in the protasis as in the apodosis, but of different types, accounted for about one third of the asymmetrical constructions. Finally, the subpattern using more markers in the protasis than in the apodosis was found to be the least frequent.

As to the types of markers, it is important to note that modal marking almost always occurs in the apodosis, if the construction contains modal elements at all. The only exceptions are Koasati and one of the constructions in Dutch, which use a modal marker in the protasis only. All the other languages invariably had modal marking in the apodosis, often accompanied by past tense marking. On the whole, past tense marking most frequently occurs in both protasis and apodosis, less often in the protasis only, and rarely in the apodosis only. Perfect(ive) aspect marking is found as often in both the protasis and apodosis as in the protasis only. As with past tense marking, it occurs rarely in the apodosis only. Finally, evidential marking occurs systematically only in the protasis, and direct counterfactual marking always occurs in both the protasis and apodosis. Table 12 below shows which languages show symmetrical marking and which asymmetrical marking. I always indicated how the markers are distributed over the protasis and apodosis.

4.4. The semantic-pragmatic status of counterfactuality

In this chapter, I investigated which patterns of marking are used to form complex counterfactual constructions, in an attempt to answer the question what these can tell us about the status of counterfactuality in semantic-pragmatic terms. As in the chapter on simple counterfactual constructions, I systematically distinguished between present and past counterfactual conditionals. In the discussion of the present counterfactual conditionals, I distinguished three patterns of marking. Five out of thirteen languages use one single marker to form present counterfactual conditionals, one using direct counterfactual marking, and four other using modal marking. Further, two languages were found to combine modal marking with present tense marking in the relevant construction, and five languages combine modal marking with past tense marking. In the last category, there is often no formal distinction between present and past counterfactual conditionals. Finally, I devoted special attention to counterfactual conjunctions, although on the whole, conditional conjunctions and conditional mood markers functioning as such were left out of consideration. As to the distribution of markers, only two languages use symmetrical marking, whereas in eleven languages asymmetrical marking was found. The hypothesis about a cross-linguistic tendency towards symmetrical marking in counterfactual conditionals, as suggested by Haiman & Kuteva (2002), was thus not confirmed by the data. However, as in the linguistic literature little is written on present counterfactual conditionals and since I did not find that many instances of the construction in the grammars consulted, I will ignore these constructions in the following discussion.

When investigating the types of marking used in past counterfactual conditionals, I distinguished five major patterns as well as three minor ones, and I also devoted a section to counterfactual conjunctions. The most frequent pattern combines modal with past tense marking and is used in fifteen out of thirty-seven languages. Eleven languages use the 'modal combined with past and perfect(ive)' pattern, and six languages use the 'modal with perfect(ive)' pattern. Further, six languages use the 'past with perfect(ive)' pattern, and in five languages there is only one type of marker in past counterfactual conditionals, which may occur either in counterfactual utterances only or

in other environments as well. Apart from these five major patterns, I also found three minor patterns. One language uses past tense marking with habitual aspect marking, two languages use only perfect(ive) aspect marking, and three languages use evidential marking combined with at least modal marking. Finally, I focused on counterfactual conjunctions, which were found in six languages. In the majority of languages, therefore, past tense marking and/or perfect(ive) aspect marking is combined with modal marking in past counterfactual conditionals. Moreover, no single language in the sample uses only past tense marking to form past counterfactual conditionals. These findings clearly refute the view held by James (1982) and Fleischman (1989), who argue that past tense markers encode hypotheticality. This means that the temporal metaphor is untenable not only with regard to simple counterfactual constructions (as shown in section 3.4), but also with regard to complex ones.

As to the distribution of markers over protasis and apodosis, in fifteen languages at least one of the past counterfactual constructions shows symmetrical marking. In thirty out of the forty-five constructions distinguished, however, asymmetrical marking is found. In thirteen cases, the apodosis contains more markers than the protasis. In eleven constructions, the protasis and apodosis contain the same number of markers, but of a different type. In six languages, the protasis contains more markers than the apodosis. Again, contrary to Haiman & Kuteva's (2002) hypothesis about symmetrical marking, the majority of counterfactual conditionals use asymmetrical marking. As to the types of markers, modal marking almost always occurs at least in the apodosis if the construction contains modal elements at all. Past tense marking and perfect(ive) aspect marking occur most often in both the protasis and apodosis, but may occur in only one of these as well. Finally, evidential marking always occurs in the protasis, and direct counterfactual marking is systematically used in both the protasis and apodosis.

On the basis of the data collected in the previous sections, we can now investigate what these findings can tell us about the semantic-pragmatic status of counterfactuality. It should first be noted, however, that the linguistic literature on complex counterfactual constructions hardly takes aspects of formal marking into account, and mainly focuses on the role of the context and the factual content of the protasis vis-à-vis the apodosis. Some linguists regard counterfactuality as a presupposition (Lakoff 1970, Lewis 1973, Bugenhagen 1993), defined as special kind of pragmatic inference that is clearly distinct

from logical implicature or entailment, thus not being built into the linguistic structure of the sentences that give rise to them (Levinson 1983:167). As such they are preconditions for successful use or functioning of utterances in discourse. Lakoff (1970), for instance, states that counterfactual conditionals presuppose the falsity of their protasis, a view shared with Lewis[28] (1973:3). A speaker uttering *if I were rich, I would travel around the world*, for example, presupposes that the protasis is not true, and therefore, the utterance is understood as counterfactual. Karttunen & Peters (1977), however, argue that the protasis of counterfactual conditionals need not be false, and that counterfactual meaning arises as a conversational implicature, based on the Gricean principle of Quality, according to which the hearer assumes that the speaker speaks the truth (Grice 1975). Such a particularised implicature is highly context-dependent, and can be cancelled by adding further contextual information. For instance, the speaker elaborating on the example given above by saying *if I were rich, I would travel around the world. But I'm going to contract debts and travel anyway*, does not implicate that he is rich, but simply cancels the implicature that he might not make a voyage around the world. In brief, the discussion on presupposition versus quality-implicature emphasises the importance of context and factual content, but does not treat aspects of formal marking.

According to Ziegeler (1995, 2000a, 2000b, 2001), counterfactual implicatures are not based on Gricean maxim of Quality, but rather on that of Quantity. She proposes a cluster of features[29] which all contribute to the evaluation of a conditional construction as more highly hypothetical. The more of the features are present in a particular construction, the higher the level of hypotheticality implied, with counterfactuality as an implicature deriving from the highest possible level of hypotheticality, as suggested by Comrie (1986). Some of these features are formal (see footnote 29), but Ziegeler

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[28] Lewis (1973:3) accepts the likelihood that the proposition in the conditional protasis is presupposed to be false, but further suggest that this may be merely a conversational implicature and therefore unrelated to any truth conditions at all.

[29] The features Ziegeler (2000b:36-43) mentions are: past tense or perfect morphology combined with an irrealis or future marker, a causal link between the protasis and the apodosis, the uniqueness of the condition in the protasis, negation, influence of the subject person (favourably first person) and extra-linguistic world knowledge (see Ziegeler 2000b:36-43 for a more detailed description).

(2000b) does not explain the relation between these formal features and the semantic-pragmatic status of counterfactual meaning in a systematic way. Further, the non-formal features mentioned relate either to the context, or to the factual content of the protasis and apodosis. In her treatment of counterfactual conditionals, Ziegeler thus proposes a quantity-implicature analysis, but again her discussion mainly focuses on context and factual content, and does not relate the aspects of formal marking to the analysis proposed in a systematic way.

Our typological findings about marking cannot tell us much about the debates discussed above. What they can tell us, however, is how complex counterfactual constructions behave with respect to the past versus past-and-modal hypothesis put forward in the chapter on simple counterfactual constructions. At the outset of this chapter, the relation between simple and complex counterfactual constructions was defined in terms of two possible hypotheses. More specifically, it was argued that simple counterfactual constructions could perhaps be regarded as elliptical complex constructions, and that counterfactual apodoses are thus formally identical to simple constructions. As an alternative hypothesis, the protasis as a whole could also be regarded as an element that modalises the apodosis, which means that counterfactual apodoses cannot be identified with simple counterfactual constructions. In order to see which hypothesis holds or which arguably does not hold, I arranged the findings on the marking of counterfactual constructions presented in this chapter and the previous one in table 13 (see on the following page), comparing simple to complex constructions. As I mentioned above, present counterfactual constructions will be ignored.

As can be seen in the table, the comparison between simple and past counterfactual constructions can only be made in twenty-one languages, which are boldfaced. In some languages, the types of markers occurring in the simple construction occur in the apodosis (A) as well, but the markers themselves are not the same. This is often the case with modal markers, which are indicated with an asterisk. As can be derived from the table, twelve languages use the same pattern of marking in the simple counterfactual construction and the counterfactual apodosis of at least one complex construction. The languages in question are Chukchi, Fongbe, Gooniyandi, Hua, Kashmiri, Kolyma Yukaghir, Ma'di, Malayalam, Nootka, Pipil, Turkish and Wardaman.

However, in nine languages, the counterfactual apodoses contain fewer markers than the simple construction, or the two clauses have the same types of markers, but the markers themselves are different. In Georgian, for instance, simple counterfactual constructions have a modal auxiliary as modal marker, whereas counterfactual apodoses contain a conditional mood marker which has a modal meaning (compare example (48) in section 3.3.1 with example (89) in section 4.3.1.3). As already mentioned, these cases are indicated with a star in the table. The languages in which the apodosis differs from the simple construction are Amele, Basque, Cantonese, Dutch, Georgian, Hdi, Korean, Slave and Supyire. Since in almost half of the languages the counterfactual apodosis formally differs from the simple construction, it may be concluded that in general, simple constructions should not be considered as elliptical complex constructions.

A further argument for regarding simple counterfactual utterances and counterfactual apodoses as different constructions involves the different types of modality that may occur in simple constructions. As was discussed in section 3.3.1, the modal element in simple counterfactual utterances may be epistemic, deontic or desiderative-intentional. In counterfactual apodoses, however, the modal element is almost invariably epistemic, since imposing a condition on the realisation of a certain SoA changes the plausibility of the actualisation of that SoA. More precisely, by making the realisation of a particular SoA dependent on a condition, the speaker reduces the degree of likelihood of that SoA. Whereas in simple counterfactual utterances the modal element may be related to epistemic, deontic or desiderative-intentional types of modality, the modal element in counterfactual apodoses is almost always epistemic, which points to the conclusion that simple counterfactual utterances and counterfactual apodoses are different constructions, and that the simple construction is not an elliptical version of the complex one.

As simple counterfactual constructions may be argued to differ from counterfactual apodoses, it might be interesting to investigate the role of the protasis vis-à-vis the apodosis. Our hypothesis put forward in 4.1 was that the protasis as a whole functions as a modal element that modifies the apodosis. Could this mean that the protasis functions as a modal element vis-à-vis the apodosis in the way the modal element in simple constructions modifies the utterance as a whole? If we look at the table, we can see that in sixteen out of twenty-one cases we have the combination of a

modal element (i.e. the protasis) and past tense or perfect(ive) aspect marking. Only in the two cases of direct counterfactual marking and in Amele, Hdi and Kolyma Yukaghir, does the apodosis not contain past tense or perfect(ive) aspect marking. If we consider the protasis as a modal element modifying the apodosis, we thus find patterns of marking that are very similar to the ones found in simple counterfactual constructions. However, in most of the languages, the apodosis already contains both modal and past tense and/or perfect(ive) aspect marking, to which the protasis may be argued to be added as another type of modal element. Moreover, the modal nature of the protasis is almost always epistemic, as was explained above, in contrast to the modal element in simple constructions, which can be epistemic, deontic or desiderative-intentional. We may therefore tentatively conclude that the protasis modalises the apodosis, but not in the same way as the modal element in simple constructions modalises the utterance as a whole.

In conclusion, we find similar patterns of marking in simple and complex counterfactual utterances, but nevertheless these two types should be regarded as two distinct constructions. Almost half of the languages formally distinguish between simple counterfactual constructions and counterfactual apodoses, and the type of modality in complex constructions is almost invariably epistemic, whereas in simple constructions it may be epistemic, deontic or desiderative-intentional. All this shows that simple counterfactual constructions cannot be equated with elliptical complex constructions, i.e. without protases. Further, the protasis was argued to modalise the apodosis utterance, but not in exactly the same way as the modal element in simple utterances modalises the construction as a whole. As to the encoding of counterfactuality, we may conclude that the combination of modal marking with past tense and/or perfect(ive) aspect marking, found in the majority of simple constructions, occurs in the majority of complex constructions as well. Since in the linguistic literature, accounts of the status of counterfactuality in complex constructions emphasise the role of the context and hardly refer to formal marking, we went back to the hypothesis put forward in the chapter on simple counterfactual constructions, which does take aspects of grammatical encoding into account. However, as we found that simple and complex counterfactual constructions are best regarded as distinct types of constructions, we cannot investigate the hypothesis in exactly the same way (for one thing; complex constructions involve

two events, rather than one). An important question for further research will be how the implicature analysis can be modified to fit complex counterfactual constructions, and how the patterns of marking outlined in this chapter can be interpreted in a theoretical sense.

Chapter 5: Conclusion

In this study, I presented a typological investigation of counterfactual constructions in a sample of forty-one languages. The basic research questions were formulated at the beginning of this thesis: how is counterfactuality encoded in these languages, and what can the patterns of marking tell us about the semantic-pragmatic status of counterfactuality? In my investigation, I systematically distinguished between simple counterfactual constructions, such as *I should have planted the seed*, and complex ones, such as *if she had seen this, she would have killed him*.

In chapter 1, I presented two hypotheses related to the basic research questions. As to the coding of counterfactual constructions, I discussed the rather influential view which regards past tense as a marker of hypotheticality, associated with James (1982) and Fleischman (1989). This idea, however, is rejected by Dahl (1997), who finds that counterfactuality is rarely coded by past tense alone. Rather, in counterfactual constructions past tense markers are combined with other types of markers, which typically have some modal flavour. This leads us to the second hypothesis presented, which pertains to the semantic-pragmatic status of counterfactuality. Given that counterfactuality is usually coded by a combination of markers that have other meanings in other contexts, Verstraete (2004) argues that counterfactual meaning is not basic, but typically arises as a conversational implicature, based on the Gricean maxim of Quanity. This implicature is triggered by the pragmatically marked combination of a modal element with a past element, with the modal element creating a scalar relation with its non-modal counterpart, and the past tense element forming an "epistemic maximum that can trigger a counterfactuality implicature" (2004:11).

On the basis of data from forty-one languages, which I selected using the sampling method designed by Rijkhoff et al. (1993) (as is discussed in chapter 2 on methodology), I came to the following conclusions. In chapter 3 on simple counterfactual constructions, only two constructions with present temporal reference were presented, both using modal marking. The remainder of the chapter focused on past constructions, which were found in twenty-five languages. As to the patterns of marking, five constructions types were distinguished. One pattern uses only one type of marker which codes counterfactual meaning directly, and is found in four languages.

The four other patterns all combine modal marking with other types of marking. The pattern combining a modal marker with an imperfective aspect marker was found to be of only minor cross-linguistic importance, as it is used in only two languages in the sample. Further, the pattern that combines a modal marker with only a perfect(ive) element is found in four languages, and the construction type containing a modal marker combined with both a past tense marker and a perfect(ive) element is used in seven languages. The most frequent pattern combines a modal marker with only a past element, and is found in ten languages. The data thus clearly refute the view of James (1982) and Fleischman (1989), since no single language encodes counterfactuality by past tense alone, as Dahl (1997) already suggested.

As to the semantic-pragmatic status of counterfactual meaning, the majority of the languages support the quantity-implicature analysis, as proposed by Verstraete (2004). In nineteen out of the twenty-five relevant languages, past counterfactual constructions combine modal marking with past tense and/or perfect(ive) aspect marking. The combination of a modal and past and/or perfect(ive) element is pragmatically marked, in that the modal element signals that the utterance is epistemically weaker than its non-modalised counterpart and thus less plausible, whereas the past tense and/or perfective aspect marker signals that the speaker knows whether the SoA referred to actually took place or not, as the past is inherently knowable. The clash of these two features may result in a counterfactuality implicature. However, there are also two patterns of marking that cannot be accounted for by the implicature analysis. The pattern combining modal marking with imperfective aspect marking still remains to be investigated, as the non-completion hypothesis proposed by James (1982) and the backgrounding view suggested by Fleischman (1995) only explain the presence of imperfective aspect marking in hypothetical environments, but not in specifically counterfactual contexts. Finally, the pattern of direct counterfactual marking also requires further research, as it seems to suggest that in some languages counterfactual meaning is basic.

In chapter 4 on complex counterfactual constructions, finally, I also distinguished various patterns of marking. Present counterfactual conditionals were found to use direct counterfactual marking, modal marking, modality combined with present tense marking, and modality combined with past tense marking. As to the distribution of

markers, the dominant pattern is asymmetrical marking, contrary to the tendency towards symmetrical marking in counterfactual conditionals, as posited in Haiman & Kuteva (2002). The same pattern is found in past counterfactual conditionals, where asymmetrical marking is most frequent as well. As to the patterns of marking used in past counterfactual conditionals, I distinguished five major patterns and three minor ones. The major patterns involve one single marker (direct counterfactual or modal marking), modality combined with perfect(ive) aspect marking, modality combined with both past tense and perfect(ive) aspect marking, modality combined with past tense marking only, and past tense combined with perfect(ive) aspect marking. The three minor patterns are past tense with habitual aspect marking, perfect(ive) aspect marking only, and evidential marking combined with at least modal marking. Finally, I also devoted a section to counterfactual conjunctions, as I did in the discussion of present counterfactual conditionals as well: in these constructions, the conjunction is specific to counterfactual constructions. We concluded that the majority of languages use a combination of modal marking with past tense and/or perfect(ive) aspect marking. As no single language in the sample uses only past tense marking to form past counterfactual conditionals, our findings on formal marking again refute the view of James (1982) and Fleischman (1989).

Since the linguistic literature on the semantic-pragmatic status of counterfactuality in complex constructions mainly deals with the role of the context and the factual content of the protasis and apodosis, with hardly any reference to the formal aspects of the constructions, I focused the discussion of complex counterfactual constructions on their relation with simple counterfactual constructions, the formal patterns of which were accounted for by the quantity implicature analysis. One hypothesis on the relation between simple constructions and complex ones was that simple constructions might be regarded as complex ones without a protasis. However, the data showed that simple counterfactual constructions should not be seen as elliptical versions of complex ones, since in almost half of the languages investigated the simple construction is formally different from the apodosis. Moreover, the modal element in simple constructions can be epistemic, deontic or desiderative-intentional, whereas the modal element in counterfactual apodoses is almost always epistemic. Another hypothesis was that counterfactual apodoses should not be regarded as simple constructions in that the

protasis modalises the construction as a whole. Indeed, the protasis was found to modalise the apodosis, but not in exactly the as the modal element in simple utterances modalises the counterfactual construction as a whole. The conclusion is that complex counterfactual constructions cannot simply be reduced to simple counterfactual constructions, and that the analysis proposed for simple constructions as such cannot be extrapolated to complex constructions. The fact, however, that the patterns of marking used in complex counterfactual constructions as a whole (i.e. protasis and apodosis taken together) are similar to the patterns found in simple constructions does suggest that an implicature analysis long the same lines may be possible. One thing such an analysis should definitely take into account is the fact that in complex constructions we are dealing with two events rather than one, and with a conditional relation between these two as an extra modaliser.

This brings us to a number of questions for further research. Both in chapter 3 and 4, utterances with present temporal reference were ignored in the discussion of the semantic-pragmatic status of counterfactuality. How counterfactual meaning arises in these constructions, and how this can be related to their grammatical marking is something that requires further research. One question to investigate, for instance, is how present counterfactual conditionals are systematically related to hypothetical conditionals on the one hand, and past counterfactual conditionals on the other. Further, the implicature analysis proposed here does not seem to apply to a small number of patterns we found, such as the pattern of modal marking combined with imperfective aspect marking and direct counterfactual marking, as mentioned above. Specifically, the existence of direct counterfactual marking in some languages seems to suggest that counterfactuality may be basic after all, provided that the marker in question is also diachronically monomorphemic. Finally, the semantic-pragmatic status of counterfactuality in complex counterfactual constructions demands further research as well. As the implicature analysis applied to simple counterfactual constructions is not applicable to complex ones, we need to find ways to deal with the specificity of complex counterfactual constructions and formulate hypotheses about the semantic-pragmatic status of counterfactuality in these constructions. The fact that the overall patterns of marking in complex constructions are similar to the ones found in simple constructions may point to an analysis roughly along the same lines.

APPENDIX: LANGUAGE REPORTS

Amele (Roberts 1987)

Simple:

-**u:** contrafactual mood marker on the verb
-**past tense** marked either on the verb of an object complement, or occurring in an adversative clause

ija   sab   mano-**u**-m   qa   qee   mane-**l**-om
1SG   food   roast-**CTF**-1SG   but   not   roast-**NEGP**-1SG
"I should have cooked the food, but I did not." (p270-520) CTF (S)

ija   nue-**em**   to-**u**-b
1SG   go-1SG.**RM.PST**   1SG-**CTF**-3SG
"I would like to have gone." (p264-792) CTF (S) (optative-ctf)

Complex:

-**mi:** *clause-final contrafactual mood particle in the protasis functioning as subordinating particle ('if')*
-**u:** contrafactual mood marker on the final verb of the protasis and apodosis

dalum aig   eu   cenal   batac   na tao-**u**-b   **mi**   ija   no-i
gourd seed that Tahitian chestnut branch on stand-**CTF**-3SG **CTF** 1SG come down-PRED
mede-mi   geh   bahic ce-b   cal   mo-**u**-m
nose-1SG.POS much very   DS-3SG dead become-**CTF**-1SG
"If that gourd seed had been on the Tahitian chestnut branch it would have come down and really hit my nose and I would have died." (p271-522) CTF (C)

hina qasil   b-i   mec-i-to-**u**-m   **mi**   ija   ene   nij-ig-a
2SG morning come up-PRED look-PRED-1SG-**CTF**-2SG **CTF** 1SG here be-1SG-TODP
"If you had come up this morning to look for me I was here." (p271-523) CTF (C) (speech act ctf)

1) Notes on counterfactuality marking

-u: contrafactual mood suffix following the verb stem and preceding the subject person/number agreement marker. This mood marker is also used in the prescriptive mood (e.g. *you should give him back his axe*) and the optative-contrafactual mood. Besides this marker, the conditional mood also has a particular set of subject person/number markers, which also occur in the prescriptive mood and the optative-contrafactual mood (p270).
-**remote past tense** is coded by portmanteau morphs expressing tense and subject person/number agreement (p224)
-**negative past tense** is coded by the medial affix **-l** , followed by subject person/number agreement markers. It is only used when the clause is negated by the negative particle **qee** (p225).
-mi: clause-final contrafactual mood particle ('if') functioning as subordinating particle

the contrafactual verb cannot be marked for tense and can only combine with the iterative aspect (p261,275)
contrafactual clauses may be finite or non-finite and even verbless equative clauses (p63)

2) Extra info on tense and aspect marking

-Tense and aspect are marked on the verb. Amele distinguishes between nine tenses: present, today's present, yesterday's past tense, remote past tense, habitual past tense, negative past tense, future tense, relative future tense and negative future tense.
-Amele also marks some aspects formally on the verb: perfective, imperfective, habitual and iterative aspect. (p223-260).

3) Extra info on conditional marking

-Conditional clauses are signalled by the conditional mood particle **fi** ('if') occurring clause-finally and functioning as a subordinating particle. "Where the conditional mood occurs on a non-final clause, it is required that the clause-final verb be marked for perfective aspect (sequential action). […] Where the sequential action is different subject following, **fi** occurs externally postposed to the clause. Where the sequential action is same subject followng, conditional mood particle is incorporated in the verb and replaces the [same subject] marker **-me.** In the unmarked order the conditional clause precedes, and is subordinate to, the superordinate clause, but the order can be reversed for pragmatic or stylistic effect"(p263).

hina	sab	qee	o-co-m	**fi**	ija	man-ec	nu	ihoc	qee
2SG	food	not	get-DS-2SG	**COND**	1SG	roast-INF	for	able	not

"If you don't get the food, I won't be able to cook it." (p263-486) HYP

ege	camac	cagin	jo-qo-na	**fi**	ege	ahul	wa	geh
1PL	sago	sticky	eat-1PL-PRES	**COND**	1PL	coconut	water	much

qee qelo-qo-na
not throw-1PL-PRES
"If we are eating sticky sago we don't throw in lots of coconut juice." (p263-485) HYP

Angolar Creole Portuguese (Lorenzino 1998)

Complex:

*Conjunction si or **Ola** ('if')*
-**past tense** marker in the protasis
-**ka:** irrealis marker in the apodosis
-**ta:** anteriority marker in the apodosis

Ami **ta** **ka** taba fazEnda **Ola** ma pagamEntu E ta maSi bwara
1SG **ANT IRR** work plantation **when** salary DEM be-**PST** more good
"I would work on a plantation if the salary was higher." (p170-86c) CTF present
"I would have worked on a plantation if the salary were higher." CTF past

1) Notes on counterfactuality marking

-ta: preverbal anterior tense marker, only attested in co-occurrence with the progressive and habitual marker **ka;** it is the past tense form of the copula (p159).
-**ka:** preverbal marker for habitual aspect and irrealis mode (p161)

Ta is the present form of the copula (**ta** is the past tense form) and as such it may be combined with **ka** to express the progressive aspect and immediate future (p161), "though the future tense is more commonly signalled by **ka**" (p163).
Angolar does not formally distinguish between present and past counterfactual conditionals.

2) Extra info on tense and aspect marking

-In Angolar Creole Portuguese tense and aspect distinctions are mostly derived from the context, but they can be expressed by preverbal markers. Angolar has an anterior tense marker (**ta**) and an immediate future marker (**ka**). It also distinguishes between progressive (**Ta ka**), habitual (**ka**), completive (**kaba/IOkE**) and iterative aspect (**to**) (p155-173)

3) Extra info on conditional marking

-"The typical conditional clause has the structure [**si** ['if']+ (**ta**) + (**ka**) +verb]. The insertion of the anterior marker **ta** and irrealis **ka** depends on the certainty the speaker has regarding the realization of the consequences" (p170). Conditional clauses may also be introduced by **Ola** ('when', 'if').

Si bo zi E aSi E, Ta bo Te ka diziga Ta tia E ta
if 2SG do 3SG DEM then 2SG FUT disgrace country DEM INT
"If you do this to her, then you are going to disgrace the whole country." (p170-86a) HYP

Si n **ka** vuna kikie ngai n na ta ma n **ka** paTa wa
if 1SG **IRR** catch fish big 1SG not know REL 1SG **IRR** happen not
"If I caught a big fish, I don't know what would happen to me." (p170-86b) HYP

Basque (Saltarelli 1988)

Simple:

-**perfect participle** of the main verb
-**(-te-)ke:** potential marker on the auxiliary (modal meaning)
-**en:** past tense marker on the auxiliary

liburu-ak   erama-**n**   n-i-eza-zk-io-**ke-en**,   baina ez
book-Pl.ABS carry-**PFP** 1SG.ERG-PST-AUX2(SUB)-3AP-3SG.DAT-**POT-PST** but   not
n-u-en   etxe-tik   atera-tze-ko   gogo-rik
1SG.ERG-(PST-A)-AUX2-PST house-SG.ABL leave-NOM-DST urge-PTV
"I could have taken the books to her/him, but I did not feel like leaving the house." (p235-1025a) CTF
(S)

Complex:

*-**ba-**: conditional marker in the protasis (conjunction function)*
-**perfect participle** of the main verb in the protasis
-optional **perfect participle** of the auxiliary in the protasis
-optional **past tense** marker in the protasis
-**en:** past tense marker on the auxiliary in the apodosis
-**ko:** future tense marker on the main verb of the apodosis
-**(-te-)ke:** modal meaning**:** potential marker on the auxiliary in the apodosis

atzo   etorr-**i**   **(iza-n)**   **ba**-l-**i**-tz
yesterday come-**PFP** (**be-PFP**) [**COND**]['if']-3ABS-**PST**-AUX1
aiton-amon-ak   ikusi-**ko**   z-it-u-**zke-en**
grandparent-PL.ABS see-[**FUT**] 3SG.ERG-(PST-3ABS)-AP-AUX2-**POT-PST**
"If s/he had come yesterday, s/he would have seen the grandparents." (p233-1018d) CTF

atzo   esa-**n**   **(iza-n)**   **ba**-l-u
yeseterday say-[**PRF**] (**be-PFP**) [**COND**]['if']-3SG.ERG-(**PST**-3ABS)-AUX2
gaur-ko   den-a   prest eduki-**ko** n-u-**ke-en**
today-DST all-SG.ABS ready have-**FUT** 1SG.ERG-(PAST-3ABS)-AUX2-**POT-PST**
"If s/he (had) said (something) yesterday, I would have had everything ready for today." (p233-1018c) CTF

1) Notes on counterfactuality marking

-ba-: conditional prefix attached to the auxiliary of the protasis. It only occurs in conditional protases and thus has a conjunction function, rather than a modal meaning (p47-48, 232).
-**perfect participle:** see 'tense and aspect marking' for the various perfect suffixes (p226-228)
-**iza-n** ('be'-PRF) or **uka-n** ('have'-PRF): optional auxiliaries in the perfect aspect (p48,233)
-**(-te-)ke:** potential infix "inserted at the end of the auxiliary. It can appear in either the present or the past tenses and can occur with any of the three participles" (p235). It designates ability and permission (p235).
-en: past tense suffix attached to the auxiliary (p224)
-ko: future suffix attached to the perfect participle form of the verb (p224-25)

-**ba** is homophonous with **-ba**, emphatic marker attached to the verb (p144)

2) Extra info on tense and aspect marking

-In Basque tense is marked on the verb by affixes or by means of periphrastic constructions:
-present: infix **-a-**
-past: infix **-en-** in synthetic verbs, suffix **-e/i(n)** in auxiliaries
-future: suffix **-ko** to perfect participle form of the verb + auxiliary form in the present
-Aspect is marked on the verb by suffixes attached to the root of the main verb in periphrastic constructions:
-perfect: suffixes **-i, -n, -tu (-o, -a, -e, -ki)**
-habitual: suffix **-ten** attached to the verbal root + auxiliary in the past or present
-progressive: verbs **ari(tu), ihardun** ('to be engaged in, continue')
→ verbs indicate time by means of aspectual markers on the main verb combined with auxiliaries in the present or past (p222-231).

3) Extra info on conditional marking

-Conditional clauses are not introduced by a conjunction, but the auxiliary of the protasis is marked for the conditional mood by the prefix **ba-,** which has a conjunction function. There are three non-counterfactual types of conditionals:
1) **ba-** + present indicative + habitual participle: possibility of the condition
-**ba-**+ present indicative + future participle: condition that must be fulfilled for what is expressed in the apodosis to happen (special type of 1)
2) **ba-** + past indicative + future participle: impossibility of the condition
[conditions in the past: auxiliary form appears without past marker -**en**]
3) **ba-** + present indicative + perfect participle: fulfilment of the condition
(p47-48)

-It is also possible to express conditions by means of non-finite clauses through nominalization or perfect participial constructions (p58).

Bihar   euri-a   egin-go **ba**-l-u
tomorrow rain-SG.ABS make-fut [**COND**]['if']-3SG.ERG-(PST-ABS)-AUX2
etxe-an   gelditu-ko   n-in-tza-teke
house-SG.LOC   remain-FUT   1SG.ABS-PST-AUX1-POT
"If it rained tomorrow, I would stay at home." (p233-1018b) HYP

Burushaski (Berger 1998)

Complex:

Constr 1	*-ke: particle in the protasis of conditional clauses occurring immediately after the verb ('if')*
	-optional ágar: conjunction meaning 'if'
	-**pluperfect** tense on the protasis verb
	-**conditional mood** marker on verb in the apodosis (**-ce**) (modal meaning)
Constr 2	*-ke: particle in the protasis of conditional clauses occurring immediately after the verb ('if')*
	-optional ágar: conjunction meaning 'if'
	-**pluperfect** tense on the protasis verb
	-**imperfective tense** on the apodosis verb (past continuous or past habitual meaning)

(**ágar**) un dukóowám **ke** un jáa oósin gumáimce
"If you had come, you would have been my guest." (p197-16.54) CTF (plup + cond)

akhóle apáyam **ke** ye ho guírcóm
"If I had not been here, you would have died." (p197-16.56) CTF (plup + imperf)

um… ité qhiáale káa hurútu bam **ke** úme khoté dísulo qhátum dilúm
"If you had stuck to this plan, you would have died in this place." (197-16.56) CTF ('be' in the preterite + imperf)

1) Notes on counterfactuality marking

-**pluperfect** tense is coded by suffixes which vary with person and number (p162)
-**conditional mood** suffix **-ce** is attached to the verb. The conditional also occurs in simple clauses, such as "It should have been around 10pm.", "I could use some money" (p164). I thus assume it has a modal meaning, rather than a conjunction function.
-**imperfective tense** is coded by suffixes which vary with person and number and has a past continuous or past habitual meaning (p161)

if the protasis verb is **bá/b-** ('be'), it does not occur in the pluperfect, but in the preterite (p197).

2) Extra info on tense, aspect and mood marking

-Burushaski distinguishes six tenses: present, future, conative, perfect, imperfect and pluperfect tense (p103).
-it also has four mood categories: indicative, imperative, optative (three kinds) and conditional (p103).

3) Extra info on conditional marking

-Conditional clauses have the particle **ke** immediately following the protasis verb and are optionally introduced by the conjunction **agar** ('if'). In the apodosis, **to, ho** or **dáa** ('then') can occur. **Ke** may be replaced by **kúli**, which gives the protasis a more generalised meaning. When the condition is not temporally bound, the conative occurs in the protasis. When it has a temporal reference point, the appropriate tense is used (present, perfect, …). Apart from **ke**-clauses, finite forms in -**ate** also have conditional meaning.

ágar ité méniksísik óoltiuman **ke** dáa ité gáipmaí bilá
"If one shows it to whosoever, it disappears." (p195-16.48) HYP

ágar … úne gúimo jií rachéi étase rái écóo **ke**, isé giríe yátis… tésate phat éti
"If you want to save your life, leave the head of the capricorn on the roof." (p196-16.50) HYP

Cantonese (Matthews & Yip 1994)

Simple:

Constr 1	-**búnlòih**: adverb meaning 'originally' (indicates past tense)
	-**modal** auxiliary expressing either possibility (**hóyíh** ('can')) or obligation (**yinggoi** ('should'))
Constr 2	-**yat-jóu**: adverb meaning 'much earlier, at the outset'
	-**yinggoi**: modal auxiliary expressing obligation ('should')

léih **búnlòih   hóyíh** sanchíng ni   fahn gung ge
you **originally can**   apply   this CL job PRT
"You could have applied for this job." (p231) CTF (S)

ngóh **búnlòih   yinggoi** gamyaht faan-hohk
I   **originally should** today   return-school
"I should have gone to school today." (I was supposed to go) (p235) CTF (S)

ngóh **yinggoi yat-jóu**   gong béi léih teng
I   **should one-early** say to you hear
"I should have told you much earlier." (p235) CTF (S)

Complex:

Constr 1 (past)	*conditional clauses may be introduced by a conjunction, but the protasis and apodosis may be juxtaposed as well (so without a linking element)*
	-**jó**: optional perfective aspect marker on the apodosis verb (past)
Constr 2 (past)	-idiom **jóu ji** ('if I had known', literally 'early know') as protasis
Constr 3 (present)	-idiom **yùhgwó béi ngóh** ('if I were you/him etc') as protasis
	-modal auxiliary **wúih** in the apodosis

yùhgwó ngóh mh   jidou **ge wá**, **jauh** mh gám daaih-seng gong la
if   I   not-yet know **LP say then** not dare big-voice   say   PRT
 "If I hadn't known, I wouldn't have said it so loud." (p302) CTF (C) past

yùhgwó móuh   ngóh, léih yíhging séi-**jó**   hóu loih la!
if   not-have me   you already die-**PERFV** very long PRT
"If it was't for me, you would have been dead long ago!" (p304) CTF (C) past

Jóu ji   daai máaih léih heui la
early know take along you go   PRT
"If I'd known I would have taken you along." (p305) CTF (C) past

yùhgwó béi ngóh jouh lóuhbáan, saht mh **wúih** chéng kéuih
if   **give me** do boss   sure not **will** invite him
"If I were the boss, I certainly wouldn't give him a job." (p304) CTF (C) present

1) Notes on counterfactuality marking

-búnlòih: adverb meaning 'originally'.
-**yat-jóu**: adverb meaning 'much earlier, at the outset'.
Since Cantonese lacks tense distinctions marked on the verb and temporal adverbs are often used to express temporal relations. These adverbs refer to the past (p189-192).
-hóyíh: modal auxiliary expressing possibility ('can') (p230-32)
-**wúih:** modal auxiliary expressing possibility or probability (p230)
-yinggoi: modal auxiliary expressing obligation ('should') (p235)
-jó: perfective aspect suffix, which "is basically used to report an event, seen as a whole or as completed. Typically such an event is situated in the past; however, **jó** should not be thought of as a past tense marker" (p204).
-idiom **jóu ji**: 'if I had known', literally 'early know' (p305)
-idiom **yùhgwó béi ngóh**: 'if I were you/him etc' (p304)

There is no systematic distinction between hypothetical and counterfactual conditionals. Usually only the context makes this clear, although some of the conjunctions are explicitly hypothetical (p302).
in the simple ctf with **hóyíh**, the particle **ge** always occurs in sentence-final position. It marks the sentence as an assertion (p348).

2) Extra info on tense and aspect marking

-Cantonese lacks tense distinctions marked on the verb. Aspect markers and temporal adverbs are often used to express temporal relations. Cantonese has six different aspect suffixes coding perfective (-**jó**), experiential (-**gwo**), progressive (-**gán**), continuous (-**jyuh**), delimitative (-**háh**) and habitual aspect (**-hoi**) (p197-210). These markers are all grammatically optional.

3) Extra info on conditional marking

-"Conditionals may be expressed either explicitly (using a conjunction such as **yùhgwó…jauh** (if…then)) or implicitly, by juxtaposition of clauses" (p301). At the end of the if-clause introduced by **yùhgwó, ge wá** may be added in formal speech. An explicitly hypothetical conjunction is **gáyùh** ('suppose'), used in formal speech. Another hypothetical conjunction is **peiyùh** ('imagine'). Finally, the conjunction pair is **jauhsyun…dou** ('even if…still) has a concessive sense (p301-306).

yùhgwó yáuh sìhgaan **jauh** hóyíh heui tái-háh
if   have time   **then** can   go   look-DEL
"If there's time we can go and take a look." (p301) HYP

Heunggóng yáuh chin   matyéh dou máaih dóu
Honkong   have money what   all buy   V-PRT
"In Hongkong you can buy anything if you you have money." (p301) HYP

Chukchi (Dunn 1999)

Simple:

> -**conditional mood** marker on the verb (counterfactual meaning)

qemel enqo n-arojw-ʔaw   **nʔ-**e-grʔo-rke-nat
so   then ADV-healthy-ADV   **COND**-E-be.born-PROG-3PL
enkʔam n-e-mk-e-qin   qejuu-t
and   ADJ-E-many-E-3SG   calf-3PL.ABS
nʔ-e-jagtal-e-nno-nat   enqore awrena-tko-gte
COND-E-be.saved-E-INCH-3PL   then   next.year-COLL-ALL
ecwera-gerg-e-n   wa-k=ʔm
success-NML-E-ABS   be-SEQ=EMPH
"Then they would calve healthily, and many calves would be preserved for the next year successfully." (p190-017) CTF (S)

qemel met-tele-mek-e [#] **nʔ-**e-nʔel-e-net
so   APPR-go-big-E   **COND**-E-become-E-3PL
nelwelʔ-e-t=ʔm
herd-E-3PL.ABS=EMPH
"Then the herd would gradually become bigger." (p190-018) CTF (S)

Complex:

> *-no conjunction meaning 'if'*
>
> -**conditional mood** marker on both the protasis and apodosis verb (counterfactual meaning)

1) Notes on counterfactuality marking

-conditional mood is expessed by prefixes fused with person and number markers. They signal that the state or event referred to by the verb is not true and isn't expected to be (p189-90).

The translation Dunn gives does not satisfactorily point to a counterfactual meaning, but the semantic description of the construction, however, does.

2) Extra info on tense and aspect marking

-Chukchi distinguishes between future and non-future tense for active verbs. Those verbs can also occur in the intentional or conditional mood and in the neutral or progressive aspect. Stative verbs, however, can only be marked for perfect or habitual aspect (p176).

3) Extra info on conditional marking

-Hypothetical conditions are not introduced by any conjunction, but both the protasis and apodosis verb are marked for intentional mood (p188-89).

Dutch

Simple:

Constr 1	-**pluperfect tense** of a modal auxiliary
	-**modal auxiliary** designating ability (**kunnen**) or obligation (**moeten**)
Constr 2	-**future perfect in the past tense** of a modal auxiliary
	-**modal auxiliary** designating ability (**kunnen**) or obligation (**moeten**)

Ik **had**   het **kunn-en** wet-en
I **have.PST**.1SG it **can**-INF   know-INF
"I could have known." CTF (S) (my example)

Ik **had**   het je **moet-en**   vertell-en
I **have.PST**.1SG it   you **must-**INF tell-INF
"I should have told it to you." CTF (S) (my example)

Jij   **zou**   **hebb-en**   **moet-en** komen
You **FUT.AUX.PST**.2SG **have-**INF   **must-**INF come-INF
"You should have come." CTF (S) (my example)

Complex:

Constr 1	*Conjunction **als** ('if') in the protasis and optional **dan** ('then') in the apodosis. The protasis (with inverted word order) and the apodosis may be juxtaposed as well.*
	-**pluperfect tense** marking in the protasis
	-**pluperfect tense** marking in the apodosis
Constr 2	*Conjunction **als** ('if') in the protasis and optional **dan** ('then') in the apodosis. The protasis (with inverted word order) and the apodosis may be juxtaposed as well.*
	-**pluperfect tense** marking in the protasis
	-**future perfect in the past tense** marking in the apodosis
Constr 3	*Conjunction **als** ('if') in the protasis and optional **dan** ('then') in the apodosis. The protasis (with inverted word order) and the apodosis may be juxtaposed as well.*
	-**future perfect in the past tense** marking in the protasis
	-**pluperfect tense** marking in the apodosis
Constr 4	*Conjunction **als** ('if') in the protasis and optional **dan** ('then') in the apodosis. The protasis (with inverted word order) and the apodosis may be juxtaposed as well.*
	-**future perfect in the past tense** marking in the protasis
	-**future perfect in the past tense** marking in the apodosis
Constr 5 (present	*Conjunction **als** ('if') in the protasis and optional **dan** ('then') in the apodosis. The protasis (with inverted word order) and the apodosis may be juxtaposed as well.*
	-**past tense** marking in the protasis
	-**future in the past** marking in the apodosis

Had ik het ge-wet-en, dan **was** ik ge-kom-en
Have.PST.1SG I it know-**PRP** then **be.PST**.1SG I come-**PFP**
"If I had known, I would have come." CTF (C) (my example)

Als je goed ge-luister-d **zou** **hebb-en**,
If you well listen-**PFP** **FUT.AUX.PST**.2SG **have-**INF
zou je het ge-wet-en **hebb-en**
FUT.AUX.PST.2SG you it know-**PFP** **have**-INF
"If you had listened well, you would have known (it)." CTF (C) (my example)

Als ik het **zou** ge-wet-en **hebb-en**,
If I it **FUT.AUX.PST**.1SG know-**PFP** **have**-INF
was ik ge-kom-en
be.PST.1SG I come-**PFP**
"If I had known it, I would have come." CTF (C) (my example)

Als ik jou was,
if I you be.**PST**.1SG
zou ik naar de dokter gaa-n
FUT.AUX.PST.1SG I to the doctor go-INF
"If I were you, I would go to the doctor." (my example)

1) Notes on counterfactuality marking

-pluperfect tense is formed by a periphrastic construction consisting of the **simple past** form of the auxiliary the main verb takes to form perfect tenses (**zijn** ('be') or **hebben** ('have')), and the **perfect participle** of that main verb.
-**modal auxiliary** designating ability (**kunnen**) or obligation (**moeten**)
-**future perfect in the past tense** is formed by a periphrastic construction consisting of the **simple past** form of the **future tense** auxiliary (**zullen** ('will'), and the **perfect infinitive** of the main verb. The perfect infinitive of a verb consists of the perfect participle of that verb and the infinitive of the auxiliary that verb takes to form its perfect tenses.

in perfect tenses, modal auxiliaries do not occur in the perfect participle, but in the infinitive immediately preceding the infinitive of the main verb.

2) Extra info on tense and aspect marking

-Dutch distinguishes between four tenses, namely past, present, future and future in the past.
-It further distinguishes two aspects: simple (zero) and perfect aspect. All tenses combine with these aspects.

3) Extra info on conditional marking

-There are three ways of forming a conditional construction. Conditional clauses may be introduced by the subordinating conjunction **als** ('if'), with optional **dan** ('then') introducing the apodosis. Another type of conditional has no conjunction introducing the protasis, but has obligatory **dan** introducing the apodosis, while the protasis has inverted word order (VSO). Finally, the protasis may be introduced by the modal verbs **mocht** ("would (that)" (standard)) or **moest** ("should (it be that)" (substandard)). In this case the apodosis has obligatory **dan**.

Als het regen-t, (**dan**) zwell-en de rivier-en
If it rain-PRES.3SG **then** swell-PRES.3PL DEF.ART river-PL
"If it rains, (then) the rivers swell." HYP (my example)

Regen-t het, **dan** zwell-en de rivier-en
rain-PRES.3SG it **then** swell-PRES.3PL DEF.ART river-PL
"If it rains, the rivers swell." HYP (my example)

Mocht het regen-en, dan zwell-en de rivier-en
Would-that it rain-INF then swell-PRES.3PL DEF.ART river-PL
"If it rains, the rivers swell." HYP (my example)

Als je dat doe-t, zal je winnen
If you that do-PRES.2SG FUT.AUX.PRES.2SG you win-INF
"If you do that, you'll win." HYP (my example)

Fongbe (Lefebvre & Brousseau 2002)

Simple:

-**kò:** anteriority marker
-**ná:** definite future marker (modal meaning: irrealis mood)

Bàyí **kò** **ná** dà wò
Bayi **ANT DEF.FUT** prepare dough
"Bayi would prepare dough." (p104-50) HYP
"Bayi would have prepared dough." CTF

Complex:

Conjunction equalling 'if' (see extra info on conditional marking)
-**kò:** anteriority marker in both the protasis and apodosis
-**ná:** definite future marker in the apodosis (modal meaning: irrealis mood)

nú jì **kò** jà ò
COMP(if) rain **ANT** fall DEF
"If it had rained" (p177-138a) CTF protasis

1) Notes on counterfactuality marking

-**kò:** anteriority preverbal marker (particle) (p89-91)
-**ná:** definite future preverbal marker (particle): "used to convey the speaker's attitude that the event referred to by the clause will definitely take place in the near future" (irrealis mood) (p91).

the combination of the marker of anteriority with the definite future marker yields a definite conditional interpretation (p89-107)
no example of a complete complex counterfactual construction is given in the grammar
the definite future marker **ná** is embedded in the prospective aspect marker (**dò...ná...wè**) (p98)

2) Extra info on tense and aspect marking

-The only tense marker in Fongbe is **kò**, which is best analysed as a marker of anteriority rather than as a past tense or pluperfect marker (p89-91).
-The definite future marker **ná**, indefinite future marker **ná-wá** and the subjunctive marker **ní** are all irrealis mood markers (p91-94).
-Fongbe istinguishes three aspects: habitual (**nò**), imperfective (**dò ...wè**) and prospective (**dò...ná...wè**) (p94-108)

3) Extra info on conditional marking

-Conditionals are optionally introduced by the complementisers **nú, ní** or **é nyí**. When the conditional clause follows the main clause, the complementisers are obligatory. The clause-final definite determiner **ó** is only optional when the protasis is negated. Hypothetical conditional protases may contain any TAM marker, except the habitual marker and the anteriority marker **kò**, the latter being reserved for counterfactual protases (p175-178).

<u>à   yí   gbè   ò</u>,   é   ná   víví   nú mì
2SG accept offer DEF 3SG DEF.FUT please for me
"If you accept my offer, it will please me." (p175-132) HYP

nú   mòlìkún **ò**   jóló mí hùn   mí dù
COMP(if) rice   DEF like 2PL hence 2PL eat
"If the rice pleases you, eat it." (p177-140) HYP

Georgian (Hewitt 1995)

Simple:

-**pluperfect** indicative marker on the verb
-**modal** auxiliary, expressing a wish or obligation such as **net'a(v(i))** ('would that') and **u+nd+a** ('should')

netavi   tkven-tan   u+pr+o   adre   i+s   mo-m-e-q'van-**a**
would.that   you(PL)-to   more   early   X(NOM)   PREV-I-IOV-bring-X(**PLUP**)
 "Would that I had brought X to you earlier." (p267) CTF (S)

dro-ze   **u+nd+a**   ga-g-e-k'et-eb-**in**-a
time-on   **should**   PREV-you-IOV-do-TS-**PLUP**-it
"You should have done it on time." (p267-68) CTF (S)

Complex:

Constr 1 (past)	*Conjunction **rom** ('if')*
	-**pluperfect** indicative marker on the protasis verb
	-**conditional** marker on the apodosis verb (modal meaning)
Constr 2 (past)	*Conjunction **rom** ('if')*
	-**pluperfect** indicative marker on both the protasis and apodosis verb
Constr 3 (present)	*Conjunction **rom** ('if')*
	-**present subjunctive** marker on the protasis verb
	-**conditional** marker on the apodosis verb (modal meaning)

gusin   **rom**   (?Ø-)e-c'vim-**a**,   sin   da-v-rc-eb-**od-i**
yesterday   **if**   (it)IOV-rain-?it(**PLUP**)   at.home   PREV-I-remain-TS-**IMPF-INDIC (=COND)**
 "If it had rained yesterday, I would have stayed at home." (p586) CTF (C) past

sen   **rom** ar   c'ar-g-e-kez-eb-**in-e**,
you(DAT) **if**   not   PREV-you-IOV-encourage-TS-**PLUP**-IND(1SG)
i+kn+eb(+a)   ar   ga-m-e-k'et-eb-**in**-a
perhaps   not   PREV-I-IOV-do-TS-**PLUP**-it
"If you had not encouraged me, perhaps I would not have done it." (p268) CTF (C) past

me   **rom** sen   v-i-q'-**o**,   xma-s   a+gar
I(NOM) **if**   you(NOM)   I-SV-be-**AOR.SUBJ**   sound-DAT   no.longer
a-mo-v-(Ø-)i-g-eb-**d-i**
PREV-PREV-I-(it)SV-raise-TS-**IMPF-INDIC (=COND)**
"If I were you, I would not make another sound."(p586) CTF (C) present

1) Notes on counterfactuality marking

-the **pluperfect** indicative is expressed by a paradigm of subject markers that are suffixed to the verb (p266-67).
-the **conditional** is expressed by a paradigm of subject markers that are suffixed to the verb. Its forms are based on the future indicative forms and have the same endings as the imperfect indicative (p237-38). Since its origin goes back to the future indicative and it occurs in the counterfactual apodosis and simple utterances, I assume that the conditional mood marker has a modal meaning rather than a conjunction function.

the conjunction **rom** ('if') marks counterfactual protases, but it also occurs in other 'unreal' conditionals (e.g. *If it were to rain tomorrow, I would stay at home*)
past wishes may be introduced by the particle **net'a(v(i))** ('would that')
simple deontic counterfactual may contain modal particles relating to the past
the copula has no present subjunctive, and so the aorist subjunctive takes its place (p586)

2) Extra info on tense and aspect marking

-Tense and aspect are marked on the verb. Georgian has a very complex verbal morphology, involving "screeves"(tense-aspect-mood forms) devided into three series (p117-506):
1) a)present subseries:
present indicative, present subjunctive, imperfect indicative
b) future subseries:
future indicative, future subjunctive, conditional
2) aorist indicative, aorist subjunctive
3) perfect indicative, pluperfect indicative, IIIrd subjunctive

3) Extra info on conditional marking

-Georgian distinguishes between real, unreal and mixed conditions (p583-588):
-real conditions are introduced by **tu** ('if') and have non-subjunctive protasis and apodosis verbs. If the conditional is used in both protasis and apodosis, the equivalent of an unreal condition is produced. When combined with a subjunctive form, the condition conveys the force of 'if it transpires that…' (p585).
-unreal conditions are marked by the conjunction **rom** ('if'). "The apodosis contains a verb in the conditional, whilst the protasis will show the present subjunctive for reference to the present and the future subjunctive for reference to the future" (p585). The pluperfect indicative is reserved to counterfactual apodoses. (The copula has no present subjunctive, so the aorist subjunctive takes its place (cfr. example)).
-mixed conditionals are combinations of real protases with unreal apodoses or vice versa. They also subsume conditionals introduced by both **tu** and **rom** (if the protasis contains a pluperfect form, the clause is counterfactual).

tu kux-s,   a+g+re+t+ve al(+)av-s
if thunder(PRES)-it also   lighten(PRES)-it
"If it is thundering, it is also lightening." (p583) HYP

xval   **rom** (?Ø-)i-c'vim-eb-**d-e-s**   sin
tomorrow **if**   (?it)SV-rain-TS-IMPF-FUT-FUT.SUBJ-it at.home
da-v-rc-eb-**od-i**
PREV-I-remain-TS-IMPF-INDIC (=COND)
"If it were to rain tomorrow, I would stay at home." (p586) HYP

Gooniyandi (McGregor 1990)

Simple:

Constr 1	-**yi/-wi:** irrealis tense marker
	-**ja:** subjunctive mood marker
Constr 2	-**yi/-wi:** irrealis tense marker
	-**rni:** potential mode marker

ward-**wi**+jadd+i-**rni**
go-**IRR**+(1U)NOM+I-**POT**
"We could have gone" (p221) CTF (S) irr pot

jamoondoo wa**gila**di**rni**   maa
other:day   I:might:have:thrown:it   meat
"I should have thrown the meat out the other day." (p534-6.256) CTF (S) irr pot

ward-**ja-ala**-nganggi   nyinlimi
bring-**SUBJ-IRR**+(1SG)NOM+ACC-on:you   I:forgot
"I could (and should) have brought you food, but I forgot to."(p549-6.302) CTF (S) irr subj

yoowooloo-ngga marni-wa gard-**ja**-yooni
man-ERG   sister-his   hit-**SUBJ-IRR**+[CL]
"The man might have hit his sister (though I know he didn't)" (p548-6.300) CTF (S) irr subj

Complex:

Constr 1	*Optional particle **booij** ('if')(very rarely used)*
	-**yi/-wi:** irrealis tense marker on both the protasis and apodosis verb
	-**ja:** subjunctive mood marker on the protasis verb
	-**rni:** potential mode marker on the apodosis verb
Constr 2 (generic)	*Optional particle **booij** ('if')(very rarely used)*
	-**yi/-wi:** irrealis tense marker on the protasis verb
	-**ja:** subjunctive mood marker on the protasis verb
	-**woo:** definite mode marker on the apodosis verb
	-**present tense** marker on the apodosis verb

barlanyi mila-**ya-ala**   mangaddi mood-**gila-rni**
snake   see-**SUBJ-IRR**+(1SG)N+A   not   step:on-**IRR**+(1SG)N+A-**POT**
 "Had I seen the snake, I wouldn't have stepped on it." (p432-5.397) CTF (C)

booij doow-**ya-ya**   yangbala-ngga yangbala
if   get-**SUBJ-IRR**+(3SG)NOM+ACC young-ERG   young
goornboo niyaji mamoo gardgaddoo**woo** yilba   mangaddi wangga-yoo
woman   this   devil   they:hit:him   for:good   not   live-DAT
 "Had a young man taken a young woman (for his wife) they would have killed him dead." (p432-3-5.399) CTF (C) generic

1) Notes on counterfactuality marking

-**yi/-wi:** irrealis tense prefix attached to the verb ([+anterior, +unrealised]), which cannot occur without either the potential mode marker or the subjunctive mood marker. "In both cases it specifies the unreal status of the situation at a past time" (p524).
-**rni:** potential mode suffix attached to the verb which occurs only with the 'unreal' tenses (future and irrealis). "[It] evaluates a situation as an as yet unrealised possibility, given the surrounding circumstances: it indicates that the situation could or might occur, or might have occurred in the circumstances, but didn't in fact occur, or hasn't as yet occurred" (p532-33). Combined with the irrealis tense, it indicates that "in the speaker's estimation the situation could have happened - there were signs that it might come into being - but it didn't "(p533).
-**ja:** subjunctive mood suffix attached to the verb which "indicates the status of a proposition as a non-fact" (p222). Combined with the irrealis tense, "it merely hypothesises […] the proposition that the situation might have occurred when it didn't" (p548). In contrast to the irrealis potential, "there need be no evidence backing up this hypothesis" (p548).
-**woo:** definite mode suffix attached to the verb, which "indicates that that the speaker evaluates and asserts the occurrence of the situation – at a past, present, future or unspecified time – as definite or certain" (p539)
-**wi:** present tense prefix attached to the verb (p218-219)

2) Extra info on tense, aspect and mood marking

-Gooniyandi distinguishes four tenses: present (prefix **–wi** in combination with marked allomorphs of certain classifiers), past (zero prefix), future (prefix **–bi**) and irrealis (prefixes **–yi/-wi**) (p215-221).
- Gooniyandi distinguishes only one aspect: progressive aspect (**goowa/wa/a**).
-It further distinguishes two mood types (subjunctive and factive) and three mode types (desiderative, potential and definite)

3) Extra info on conditional marking

-Conditional clauses are not obligatorily introduced by any conjunction, but have their protasis verb in the subjunctive mood. In future conditionals both the protasis and the apodosis verb are in the future tense. In present conditional clauses the protasis verb is in the present tense. Past conditional protases do not have any tense marker (past tense is realised by a zero-prefix) and are best translated as causal subclauses. Conditional clauses may be introduced by the particle **booij** ('if'), but it is rarely used (p432-34).

thiddoo   galyjini gidda-**ya**-woomi   mandaddi
kangaroo fast   run-**SUBJ**-**FUT**+(3SG)NOM+[CL] not
nyag-goowa-woolooni
spear-PROG-**FUT**+(1SG)NOM+[CL]
"If the kangaroo runs fast, I won't be able to spear it." (p433-5.400) HYP future

marndi   waj-**ja**-wooddaddi   yilba
fighting/boomerang throw-**SUBJ**-**PRES**+(3PL)NOM+[CL]   forever
wardgiri mangaddi   barngiri
it:goes   not   it:returns
"Should anyone throw a fighting boomerang, it will go right on, and not return." (p433-5.401) HYP present

gamba-ya   gard-**ja**-wani   nyiminbani
water-LOC fall-**SUBJ**-(3SG)NOM+[CL]   he:drowned
"Because he fell in the water, he drowned." (p434-5.402) HYP past

Hdi (Frajzyngier 2002)

Simple:

-má: hypothetical marker (modal meaning)
-**tà:** imperfective aspect marker

Má tà   kúm-ày-ká   tá nzà-kú   mà   túrú
HYP IMPF want-PO-2SG OBJ stay-ABS   PREP Tourou
"You wanted to live in Tourou…" (but it did not happen) (p498-62) CTF (S)

Complex:

-**sí:** referential past tense marker in the protasis, which is optional if other elements indicating past are present, such as **kdá** ('last year')
-tà: imperfective aspect marker in the protasis
-**ta:** referential marker in the protasis (conjunction meaning)
-má: hypothetical marker in both protasis and apodosis (modal meaning)

<u>**má**</u> <u>**tà**</u>   kúm-**tá**-ká   tá   nzà-kú   mà   túrú…
HYP IMPF want-**REF**-2SG OBJ stay-ABS PREP Tourou
"If you wanted to live in Tourou…" (p498-61) CTF (protasis)

<u>**Má**</u> <u>**tà**</u>   hlgà-f-**tá**-tsí   kdá   **má**   màmú skw-à   z-áy
HYP IMPF plant-UP-**REF**-3SG last year **HYP** exist   thing-GEN eat-PO
 "Had he planted last year, he would have had food." (p498-64) CTF

1) Notes on counterfactuality marking

-**má:** particle coding hypothetical modality; it precedes the referential past tense marker, imperfective aspect marker and the verb. It also occurs in non-counterfactual sentences, such as *I might go* (p272).
-**sí**: clause-initial particle coding referential past tense (p335)
-**tà:** preposition coding the imperfective aspect (p296)
-**ta:** referential marker, when suffixed to the verb it codes conditional modality (p498). It thus has a conjunction function.

the imperfective marker may also occur in hypothetical protases (p498).
tà is a locative stative preposition (still used as such) that has grammaticalised into a marker of imperfective aspect (p305).
mà is a locative preposition (still used as such) meaning "in, within" (p230). It also marks hypothetical modality (p272).

2) Extra info on tense and aspect marking

-Hdi has three tense categories: the referential past and two future tenses. If a clause does not have any marking of these tenses, then its tense is unmarked and can be inferred from the discourse configuration of events (p335). The referential past marker particle **sí** refers to a specific time in the past.
-Hdi distinguishes between perfective, imperfective, progressive (**tà** + reduplicated verbal root) and stative aspect (**nda** + verbal stem ending in –a) aspect. Only perfective and imperfective aspect code the pragmatic status of the clause, signalling whether it is pragmatically dependent or independent (p295-325):
perf: indep: reduplication
　　　dep: verb **–a**
imperf: indep: **tà** nominal verb
　　　　dep: **tà** verbal root

3) Extra info on conditional marking

-(Realis) conditionals are marked by the sequential marker **kà** in clause-initial position (p495). "Most often, the conditional protasis is coded as a background clause by the demonstrative **ná**. There are no restrictions on aspect or tense in the conditional protasis", which "differs from the temporal protasis in that perfective aspect in the conditional protasis is coded by reduplication of the verb." […] "The conditional protasis may also be unmarked if the apodosis clause is marked" (p496).
"The third person singular subject in protasis clauses is marked by the pronoun **tsì"** (p497). Consecutive clauses share that characteristic, but their verb then cannot be reduplicated (p497).

<u>**Kà** ndá xèrfá ká ná</u> lá-m-lá nghtá-tá mà
SEQ ASSOC tiredness 2SG DEM go-IN-go see-REF PREP
Tùghwázàk xàdí yá yá
Hibiscus here DEM DEM
"If you are tired, enter to see what is in the hibiscus here." (p496-55) HYP

<u>lívín á ká tá kàpá pálà wù</u> má ndá dzá ká
be able NEG 2SG OBJ raise stone NEG then STAT hit 2SG
"If you cannot raise the stone you are whipped." (p497-58) HYP

Hmong Njua (Harriehausen 1988)

Complex:

Constr 1 (past)	*Conjunction **yog** ('if')*
	-**tau**: paste tense marker in the protasis
	-**yuav**: future tense marker in the apodosis
Constr 2 (present)	*Conjunction **yog** ('if')*
	-**yuav**: future tense marker in the apodosis

Yog ntuj **tau**   lug   naaj peb **yuav** ntub
COMP sky **PAST** come rain 1PL **FUT** wet
"If it had rained, we would have got wet." (p243-460c) CTF (C) past

Yog   koj yog Hmoob koj lub npe   **yuav** yog Liaq
COMP 2SG be   Hmoob 2SG CL name **FUT** be   Lia
"If you were a Hmoob, your name would be 'Lia'." (p244-462) CTF (C) present

1) Notes on counterfactuality marking

-**tau**: particle that indicates past tense if it occurs preverbally. When it is used postverbally it has a modal meaning and is translated by 'can' or 'may'. The form is also homophonous with the lexical verb **tau** meaning 'do' (p53-54, 190-95).
-**yuav**: particle marking future tense and occurring preverbally. It is homophonous with the lexical verb **yuav** meaning 'get, buy' (p56).

The present counterfactual has the same marking as some hypothetical conditionals; only the specific meaning of the sentence makes it counterfactual.

2) Extra info on tense and aspect marking

-Hmong Njua is an isolating language and marks tense and aspect by particles. Past tense is indicated by adverbials referring to past time (such as 'yesterday') or by the past time marker **tau**. Future tense may also be indicated by adverbials and particles, more precisely **maam** (adding a nuance of necessity) and **yuav** (intentional and 'pure' future) (p53-56).
-Hmong further distinguishes between perfective (**lawm**) and continuous aspect. (**taab tom**) (p56-58).

3) Extra info on conditional marking

-Conditional clauses are introduced by the conjunction **yog**, which is homophonous with the copular verb 'be'. Tense marking is possible in the protasis as well as in the apodosis. In hypothetical conditionals, the apodosis is often marked for future tense.

Yog   Peter tuaj   kuv yuav tsiv
COMP Peter come 1SG FUT leave
"If Peter comes, I will leave." (p243-459a) HYP

Yog   ntuj yuav lug   naaj peb yuav ntub
COMP sky FUT come rain 1PL FUT wet
"If it will rain, we will get wet." (p243-460b) HYP

Hua (Haiman 1980)

Simple:

> **-hine:** irrealis mood marker on the verb

dmi-ro-ka va-**sine**
            [**CTF**] (my gloss)
"You would have given it to me and gone" (p406) CTF (S)

Complex:

Constr 1	-**hipana:** counterfactual desinence on the protasis verb
	-**hine:** counterfactual desinence on the apodosis verb (irrealis mood marker)
Constr 2	-same-subject medial with –**to** auxiliary as protasis
	-**hine:** counterfactual desinence on the apodosis verb (irrealis mood marker)

korihu-**hipana**   via   ta-**sine**
run away-1SG.**CTF (PROT)** tears shed-2SG.**CTF (APOD)**
"If I had run away, you would have cried." (p185) CTF (C)

dmi-**to**-ka va-**sine**
"If you had given it to me, you would have gone." (p406) CTF (C)

1) Notes on counterfactuality marking

-hine: counterfactual mood suffix which may combine with other desinences , namely the interrogative ve$_3$ (hipe$_3$), the relative ma'$_3$ (hipa'$_3$) and the concessive-expectant va$_3$ or mamava$_3$ (hipa$_3$ and hipamava$_3$) (p160-61) [**hine** :unmarked subject (1sg, 2/3pl, 3sg), **'hine** : dual subjects (1dl, 2/3dl), **sine** : 1pl, 2sg] (px1)
-**hipana:** Haiman analyses this counterfactual desinence as bimorphemic: the relativized form of **hine** $_3$ (**-hipa'** $_3$) + **na,** ('thing') the unmarked noun which acts as a head NP. The relative desinence -hipa'$_3$ marks the previous clause as an adjectival complement on this head noun (185-86).
-**to:** auxiliary only occurring in same-subject medials signalling that the medial clause is subordinated to the final clause (p406).

2) Extra info on tense and aspect marking

-In Hua tense and aspect are marked by auxiliaries. The only formally marked distinction of tense is that between non-future (unmarked, aorist) and future, the latter being expressed by a variety of auxiliaries. Hua has many aspectual auxiliaries, expressing progressive (**bai**), perfective (**ro**), habitual and conative aspect (**ko**) (p135-148)

3) Extra info on conditional marking

-Conditional clauses (hypothetical or given) are not introduced by any conjunction. Verbs of hypothetical conditionals have the conditional desinence **–mamo** $_3$. That desinence may follow any aspectual auxiliary, but only one future auxiliary, namely the subjunctive **su-**. Haiman analyses this desinence as bimorphemic, consisting of –**ma** $_3$ + **mo**, where –**mo** (identical with potential topic marker) functions as a nominalizer. " –**ma** $_3$ is identical with the relative desinence –**ma'** $_3$, but for the final glottal stop, which is a fleeting sound in a number of other constructions" (p186).
Non-hypothetical future clauses are rendered by the **to-** same-subject medial (p180-186).
Finally, any change-of-subject medial clause, which occurs with the future auxiliary **su** immediately before the personal desinence **ga** $_3$ or with the portmanteau suffix **na**, is ambiguous between a coordinate clause in the same mood as the following clause and a hypothetical conditional protasis (p403).

hi-si-**mamo**
do-FUT.SUBJ-HYP.COND (my glosses)
"If he does it, …" (p181) HYP

"vede bau-e"   hu-**to**-ka   kai-di   bro-o
human be 1-FIN.A   say-**if**-2SG.ANT skirt-1SG.POSS put-IMP
"If you claim to be human, put on my skirt." (p152) HYP

Ika (Frank 1990)

Simple:

-**iza**: modal marker (result, deontic)
-**un**: imperfective marker on the verb
-(ne)ki: contrary to expectation marker

Asigeʔ   Husiri   tsu-**un**   zor-**iza**   **neki**   tsoutso kunas   -eʔ   pari   -ri
Next^day   shotgun   see-**IMPF**   go-**RES**   **CNTR**   fear   become   then   from   TOP
 "The next day he would have gone to see the shotgun (booby-trap) but he got scared." (p63-222) CTF

   1)   Notes on counterfactuality marking

-iza: suffix, usually following a verb marked by –**un** (imperfective aspect, p46). It indicates "what would happen under certain conditions" (p62). Combined with the negative, it implies 'does not want to'(p62).
-**un**: imperfective suffix indicating that an event is going on at the time of the temporal reference point, which may be prior to the time of speaking (p56-57).
-(ne)ki: particle indicating that the event or state referred to is contrary to expectation (also occurring in interrogative clauses (p80-288), indirect questions (p79-282), and negative clauses(p89-330))

negation is marked in the verb phrase by the suffix –**uʔ**, which has the form **-ʔ** following a vowel-final morpheme (p89)

   2)   Extra info on tense and aspect marking

-In Ika tense is marked on the verb by deictic suffixes*:* **-w** (proximate first person), **-ku** (medial nonthird person), -**z/0** (medial nonfirtst person) and -**na** (distal/past). Future tense is expressed by the modal suffix –**ngua** (p61-65).
-Aspect is marked on the verb (lexical verb or auxiliary, since the four groups of affixes (negative/aspect/modal/deictic) are mutually exclusive, (p47)) by temporal aspect markers*:* **-aki** (perfect), **-un** (imperfective) and **-0** (perfective aspect, which sees an event as an undifferentiated whole) (p56-57).

   3)   Extra info on conditional marking

-Conditional subclauses are marked by the conjunction –**ndi** attached to the lexical verb or auxiliary and may precede or follow the clause it refers to. Another way to construe conditionals is by adding the result suffix –**iza** to both the verbs of the protasis and the apodosis; the form –**ninza** is a special form for the first person (p62-63).

Bogotá zoza aw-**iza**   na-**ndi**,   Monserate   tsua   aw-**iza**
Bogotá go   AUX-**RES** AUX-**COND['if']** Monserate   see   AUX-**RES**
"If one were to go to Bogotá, one would see Monserate." (p62-249) HYP

wits-uʔ   **ki**   nán-ak-o   undin   zue-**ndi**
die-NEG   **CNTR**   AUX-OBL-Q   under   go-**COND['if']**
"Would you die if you went underneath?" (p95-346) HYP

Imbabura Quechua (Cole 1982)

Simple:

-conditional mood marker (-**man**) (modal meaning)
-past tense of **ka** ('be') (third person)

shamu-ngui-**man**   **ka-rka(-ngui)**
come-2.SG-**COND**   be-**PAST**.3
"You would have come." (p155-625b) CTF (S)

shamu-n-**man**   **ka-rka**
come-3-**COND**   be-**PAST**.3
"They would have come." (p156-625f) CTF (S)

1) Notes on counterfactuality marking

-present conditional mood is formed by adding the suffix **-man** to the present tense of the verb (present tense suffix varies with person and number of the subject) (p154). As the conditional mood occurs in simple sentences and not in conditional constructions, I assume it has a modal meaning rather than a conjunction function.
-"In the past tense, with the exception of the first person singular, the conditional is formed from the present conditional followed by the third person past tense of **ka** ('be')" (p155). In the second person, the second person past tense of **ka** may be used. In the first person singular, the first person past tense of **ka** is obligatory (p154-55).

mild suggestions in the second person are frequently made by suffixing topic marker **–ka** to the conditional (e.g. *you ought to go*) (p157).
the verb **ka** ('to be') is homophonous with the topic marker **-ka** (enclitic).

2) Extra info on tense, aspect and mood marking

-Tense is marked on the verb (main and relative clauses have absolute time reference; indicative complement clauses only have relative time reference). Imbabura Quechua distinguishes three tenses: present (paradigm of person-number suffixes), past (past suffix **–rka** followed by person-number suffixes) and future (paradigm of person-number suffixes) (p142-47).
-Aspect is marked on the verb as well. Imbabura Quechua distinguishes between perfect (**-shka** between verb stem and tense suffix), habitual (**-j**), continuous (**-ju**), ingressive (**-gri**), durative aspect (**-riya**) and obligation (**na**)
-It further distinguishes five moods: indicative, conditional, imperative, subjunctive and obligation (p154-58).

3) Extra info on conditional marking

-"In condition clauses, as in time and manner clauses, the switch reference suffixes **–shpa** 'identical matrix and subordinate subject' and **–jpi** 'non- identical matrix and subordinate subject' are employed. […] Conditional clauses are distinguished from time (and manner) clauses by context and by the use of the independent suffixes **–ka** 'topic' and **–mi** 'focus'" (p64-65). -**Ka** is typically used in conditionals, indicating that the clause is old or background information, but it also occurs in other types of sentences. –**Mi** marks the focus of the sentence and is also used in other than conditional clauses. The tense of the conditional construction as a whole is dependent on the tense marked on the apodosis verb (p64-65).

Utavalu-man ri-**shpa-ka**   ruwana-ta   randi-sha
Otavalo-to   go-**ADV[.SS]-TOP** poncho-ACC   buy-FUT.1SG
"If I go to Otavola, I will buy a poncho." (p64-221) HYP

ñuka ashtaka kulki-ta   japi-**jpi-ka**   ñuka tayta
I   much   money-ACC take-**ADV[.DS]-TOP**   my   father
ishkay llama-ta   ara-wa-gna
two   sheep-ACC   give-1SG-FUT.3SG
"If I make a lot of money, my father will give me two sheep." (p64-222) HYP

Utavalu-man ri-**shpa-ka**   ruwana-ta   randi-y-man
Otavalo-to   go-**ADV[.SS]-TOP** poncho-ACC   buy-1SG-[COND]
"If I went to Otavalo, I would buy a poncho." (p65-223) HYP

Kashmiri (Wali & Koul 1997)

Simple:

-**conditional mood** marker on the auxiliary **a:sun** ('to be') (modal meaning)
-**perfect participle** of the main verb

bi   a :sihe :   go:-**mut**
I.MSG.NOM   be-**COND**-1SG   go-**PFP**.MSG
"I would have gone." (p238-4a)   CTF (S)

tse   a:si-he:th   por-**mut**   akhba:r
you.ERG   be-**COND**.3MSG.2SG   read-**PFP**.3MSG   newspaper.3MSG
"You would have read the newspaper."   (p238-5b)   CTF (S)

Complex:

*Conjunction **agar (teli)** ('if..., then')*
-**conditional mood** marker on the auxiliary **a:sun** ('to be') in both protasis and apodosis (modal meaning)
-**perfect participle** of the main verb in both protasis and apodosis

agar   ni   tem'   madad a:sihe: kor-**mut** bi
if   not   he.ERG   help   had[be].**COND**   did-**PFP**   I
a:siha: ni   ka:miya:b sapd-**mut**
had[be].**COND**   not   success   be-**PFP**
"If he had not helped, I would have not found success." (p74-26a) CTF (C)

1) Notes on counterfactuality marking

-conditional mood is "directly marked on the verb or on the auxiliary **a:sun** ('to be') if the verb is in its participial form" (p237). The conditional mood markers differ according to person, gender and number. Conditional forms express "either a likelihood of an event or dependency" (p237) (p137-38). As it occurs in simple sentences and expresses degrees of likelihood, I assume the conditional mood has a modal meaning rather than a conjunction function.
-**perfect participle** is formed by adding the suffix -**mut** to the main verb's past tense stem. "The suffix varies with the gender number of he nominative/absolutive argument" (p230-31).

2) Extra info on tense and aspect marking

-Kashmiri distinguishes three tenses: present, past and future. "In the present tense, the main verb occurs in its participial form and the tense is marked on the present form **chu** of the auxiliary **asun** ('to be'). The past and future tense are marked on the verb itself. The past tense subdivides into proximate, indefinite, and remote past, all of which are again formally distinguished" (p219). All markers vary with person, gender and number (p219-230).
-Kashmiri marks some aspects formally on the verb, such as the perfect and imperfective aspect. Other aspects are marked by explicators (perfective, durative, terminative) or yet other formal means (ingressive, iterative) (p230-236)

3) Extra info on conditional marking

-Conditional clauses are signalled by the connective pair **agar, teli** ('if, then'). They are also expressed with the conjunction **nati** ('otherwise'). The protasis may precede or follow the apodosis. In the hypothetical conditionals given, the conditional mood does not occur (p75).

agar so ba:zar gatshi,   **teli** gatshi   ni   bi
if   she market go.FUT.FSG then   go.FUT.1SG NEG   I
"If she goes to the market, then I won't go." (p75-25a) HYP

teli bani ja:n phasal **agar** ru:d peyi
then make good crop   if   rain fall
"The crop will be good if the rain falls." (p75-25b) HYP

Koasati (Kimball 1991)

Complex:

No conjunction equalling 'if'
-**má:li**: modal suffix on the protasis verb (modal meaning)
-**past tense** marker on the apodosis verb

Ohayyì   mí:taka-p   iltóhno-li-**má:li**-t
Year   last-NEW:TOP   work-1SS-**MODAL**-CONN
ná:s-on   có:pa-li-**t**
something-OBJ:FOC   buy-1SS-**PAST**
"Were I to have worked last year, I would have bought something." (p198-263) CTF

1) Notes on counterfactuality marking

-**má:li** ("must, would"): modal suffix in position 8 after the verb root (p196-198). A verb stem is preceded by nine fixed slots that can be filled by verbal prefixes, and followed by 14 slots that can be filled by verbal suffixes. This modal suffix "indicates either that the action is unrealised or that the action is the only one possible under the circumstances" (p198). It also occurs in non-conditional sentences (p198). Although it occurs in the protasis in the example, which suggests a conjunction function, I assume it has a modal meaning, since it also occurs in other modal environments in simple constructions.
-**past tense** marker. In the example, it occurs word-finally and has the form –**t**. The IIpast (-**ti**) and IIIpast (-**to**) suffix have an identical word-final form (-**t**). As Kimball says that the IIpast suffix is falling rapidly out of use, we can assume that the apodosis gets the IIIpast suffix (p207-10).

2) Extra info on tense and aspect marking

-In Koasati tense is marked on the verb by four past tense suffixes, the temporal suffix –**fó:ka-** and the negative imperative suffix –**Vnna**.
-**:sa**- Ipast: present & recent past
-**ti**- IIpast: very recent past
-**to**- IIIpast: past (hours or years)
-**ki**- IVpast: past (many years)
(p207-12)
-Aspect is marked on the verb by suffixes (habituals & intensives) (p156-7). I could not find any perfective aspect marker, but I did find an imperfective one: internal modification of the verb root, only in the present tense (p296).

3) Extra info on conditional marking

-Hypothetical conditions can be signalled by the temporal suffix **fó:ka-** ('when, if') attached to the verb. Another way to contrue conditionals is by means of subjunctive suffixes (slot 13). Suffix **-:p** ('if, when') "indicates that the action of the verb is unreal or potential" (p213). Suffix **-:k** ('if, when') "indicates that the action is a generalized possibility. It is frequently used for actions that might be done to achieve a certain goal" (p214). These subjunctive suffixes not only mark conditional clauses, but also temporal ones and complement clauses, for example after the verb 'to hope' (p210-16). Conditional constructions with the modal **má:li**, however, do not contain a linking element.

Lafi   winíhka-**:k**   kasát-híkko-laha-V
Winter thunder-**SUBJ**   be cold-3NEG(2A)IRR-PHR:TERM
"If it thunders in winter, the weather will not be cold." (p192-239) HYP

paká:li-k   hacim-ná:ho-**p**   ohayyí óhya-n
flower-SUBJ 2PL.DAT-exist-**SUBJ**   summer all-ADV
hacim-biní:l-o-V
2PL.DAT-visit-be-PHR:TERM
"If you all have flowers, they can visit you all summer." (p213-308) HYP

iposkanahlí:ci-**:fó :k**-on   iposkanáhka-laho-to=máhco-k
spoil:children-**WHEN**-SW   be: spoiled-IRR-IIIPAST=ENCL-SS
"When we spoiled them, they would be somewhat spoiled." (p192-237) HYP

Kolyma Yukaghir (Maslova 2003)

Simple:

-**et:** irrealis marker on the verb

tudel pud-o-l   lebie-ge   modo-t   m-**et**+l'e-j
he   upper-VR-ANR earth-LOC sit-SS:IMPF AFF-**IRR**+be-INTR:3SG
"He should have lived on the upper earth." (p172-329b) CTF (S)

Complex:

-protasis verb is a **conditional converb** (switch-reference form) ending in **-ge-ne** (DS) or **-nide** (SS)
-**l'el:** inferential marker on the protasis verb
-**et:** irrealis marker on the apodosis verb

met-kele m-**et**+albozi-m   tet el+l'e-**l'el-ge-ne**
I-ACC   AFF- **IRR** +overcome-TR:3SG you NEG+be-**INFR-DS-COND['if']**
"He would have overcome me, if it was not for you." (p171-328c) CTF (C)

juø-**l'el-nide**   m-**et**+aji-nu-l'el-na
see-**INFR-SS:COND['if']** AFF- **IRR** +shoot-IMPF-INFR-3PL:TR
"If they had seen (this), they would have been shooting." (p171-328b) CTF (C)

tat   uj-t   zad'i-t
CA work-SS:IMPF be.greedy-SS:IMPF
m-**et**+el'ed'o-jek
AFF- **IRR** +disappear-INTR:2SG
el+kes'i-**l'el'nide**
NEG+bring-**INFR-SS:COND['if']**
"Working in such a way, you would have ruined yourself by greedyness, if you had not brought it back." (p397-710c) CTF (C)

1) Notes on counterfactuality marking

-et: irrealis prefix attached to finite verbs, usually preceded by **m-**, affirmative prefix, the output being **m-et-**. Otherwise it is often pronounced as **ot-**. It is used to express counterfactual situations. Less frequently, it is also used to express potentiality or desirability (p167-172).

-l'el: inferential suffix attached to finite verbs or to conditional converbs. "The most frequent meaning of the inferential is the hearsay evidential; in this meaning, it is used for narration, if the speaker describes events which he has not witnessed himself" (p172). The form is also used "render information inferred on the basis of some other facts" (p173). It may also express mirative exprerience (p173).

-gene (DS) or **-nide** (SS): conditional suffixes attached to converbs (switch-reference forms), only used in conditional constructions (p158-59, 165).

In simple counterfactual constructions, the irrealis marker is the only ctf marker, but it also occurs in other constructions expressing potentiality or desirability (e.g. *would you enter this box?, you had better sleep, like I do.*).

The conditional DS converbs are formed by means of the obsolete generic locative marker **-ge-ne** (p158-59).

2) Extra info on tense and aspect marking

-Tense is expressed by suffixes attached to finite verbs. Yukaghir distinguishes between non-future (zero marking) and future tense (**-t(e)**) (future suffix may be attached to attributive forms too). It also has a periphrastic past (p166-181).

-Aspect is marked on converbs and finite verbs. Yukaghir distinguishes between imperfective (**-nu**) (progressive, durative, generic, habitual and iterative senses), perfective (**-j/s'**) (punctual, completive, semelfactive senses), iterative (many suffixes), habitual (**-nun(nu)**), ingressive (**-E**), inchoative (many suffixes) and resultative/stative aspect (**-o**) (p182-210).

3) Extra info on conditional marking

- There are three constructions used in Yukaghir to express hypothetical conditional clauses:
1) predictive conditional construction (p392-399):
P: conditional converb; A: finite verb in the future, prospective or imperative form (ambiguous between hypotheses (if-clauses) and presumptions (when-clauses))
2) generic conditional construction:
P: conditional converb; A: finite verb in the imperfective or habitual form
3) inferential conditional construction:
P: conditional converb; A: finite verb in the non-future form if the implied time reference is non-past and the inferential form otherwise

met+moj-l-u-**ge-ne**   met   tet-ul
REFL-hold-1/2-0-**DS-COND['if']** I   you-ACC
and'e-s-u-**t**
eye-CAUS-0-FUT(TR:1SG)
"If you hold yourself still, I will make you an eye." (p393-705b) HYP

pugeme   n'e+nun-**nide**   aj   joda-**nun-**d'il'i
summer-TMP RECP+find-**SS:COND['if']** CP play-**HAB**-INTR:1PL
"Whenever we met in summer, we also used to play." (p396-709b) HYP

el+kel-l-u-**ke-ne**   m+made-**je**
NEG+come-1/2-0-**DS-COND['if']**   AFF+die-INFR:1SG
"If I do not come, that will mean that I will have died." (p398-711a) HYP (inferential)

Korean (Sohn 1994)

Simple:

-**debitive mood** marking (modal meaning)
-**past tense** marker on main verb
-**past tense** marker on auxiliary

ne-nun ecey   ttena-**ss-eya**   **hay-ss**-ta
you-TC yesterday leave-**PST-if only**   **do-PST**-DC
"You should have left yesterday." (p347-217b) CTF (S)

Constr 1	-**conditional mood** in the protasis, expressed by the *conjunctive suffix –(u)myen.* (conjunction function)
	-**pluperfect tense** marking on the protasis verb (**-ess-ess**)
	-**modal element** (supposition-bearing) in the apodosis, such as –**(u)l they-n-tey (-yo)** ('would supposedly do or be…') or **(u)l ke(s) i-ta** ('would probably do or be…')
	-**past tense** marking on the apodosis verb
Constr 2	-**conditional mood** in the protasis, expressed by the *conjunctive suffix –(u)myen.* (conjunction function)
	-**past retrospective quotative** in the protasis (**-ess-te-la**)
	-**modal element** (supposition-bearing) in the apodosis, such as –**(u)l they-n-tey (-yo)** ('would supposedly do or be…') or **(u)l ke(s) i-ta** ('would probably do or be…')
	-**past tense** marking on the apodosis verb

Complex:

Minca-ka   w-**ass-ess-umyen** kath-i   nol-**ass-ul**   **they-n-tey**-yo
Minca-NOM come-**PST-PST-if** together play-**PST-PROS supposedly**-POL
"If Minca had come, (I) would have played together with (her)." (p75-148b) CTF (C)

ney-ka   w-**ass-te-la-myen**   kath-i   nol-**ass-ul**   **ke   y-a**
you-NOM come-**PST-RET-DC-if** together play-**PST-PROS fact be-INT**
 "If you had come, (I) would have played together with you." (p75-148c) CTF (C)

1) Notes on counterfactuality marking

-debitive mood marking can occur by means of the fossilized construction of a conditional clause ending in the suffix –**eya** ('if only') and the verb **hata** ('do'). Another fossilized construction to express obligation is a conditional clause ending in the suffix –**(u)myen** ('if') + negative adverb **an** + the inchoative verb **toyta** ('become, do'). These forms express obligation (p347).

-**conditional mood** is formed by adding the conjunctive suffix –**(u)myen** ('if') to the verb. Other conditional constructions are formed by means of conjunctive suffixes such as –**eya** (infinitive –**e** + particle **ya** 'if only') and –**taka-nun** (transferentive –**aka** 'while doing' + topic-contrast particle **nun** 'as for' ('if (one) keeps doing')) (p342).

-**pluperfect tense** is expressed by the same two suffixes **ess-ess,** with –**ess** being a past tense suffix (p321-22).

-**(u)l they-n-tey (-yo)** ('would supposedly do or be…') is derived from –**(u)l the i-n tey(-yo)** (PROS expectation/intention be-MD circumstance-POL) (p74)

-**(u)l ke(s) i-ta** ('would probably do or be…') is glossed as PROS fact be-DC (p74).

-**past retrospective quotative** in the protasis (-**ess-te-la**) is derived from –**ess-te-la-ko ha** (PST-RET-DC-QT say) and means 'if it is said that (he) had done or been…' (p74). "The retrospective mood denotes a situation where one recalls a fact that one has witnessed, thus associated with such meanings as 'I saw/observed/experienced that…'" (evidential meaning) (p342).

in the ctf sentences given by Sohn, both apodosis verbs are marked for past tense and prospective mood (**-(u)l(i)**). The prospective suffix denotes intention (or volition) as well as prospect, but its use is becoming old-fashioned, being replaced by either an adjectival construction or the intentional modal suffix **-keyss** (p48, 346-7)

2) Extra info on tense, aspect and mood marking

-In Korean, universal, present and future tenses are marked by zero, past tense by –**ess**, and pluperfect by –**ess-ess**. It thus has only past and non-past distinction in formal terms, with the former subdivided into simple past and pluperfect (p321-22).

-Korean further distinguishes between perfect (**-ess**) and imperfective (zero) aspect and uses periphrastic constructions to express habitual, continuous, progressive, ingressive, terminative, iterative, durative, simultaneous, preparative, attemptive and intentive aspect (p327-37).

-Finally, three suffixal slots in the predicate are filled by different types of mood: modal, mood (in a narrow sense: indicative, retrospective, optative, …) and sentence type (declarative, interrogative, imperative, propositive) (p337-58).

3) Extra info on conditional marking

-Conditional clauses are formed "either from an adjectival clause and its condition-indicating head noun followed by the case-particle **(u)lo** or from a non-finite clause followed by conditional suffixes such as –**eya** (if only'), **-kentay** ('when', 'if'), –**ketun** ('provided that'), –**taka-nun** ('if keep doing or being'), and –**(u)myen** ('if', 'when')" (p74).

ney-ka   ka-l   **coken-ulo**   swul-ul   sa-keyss-ta
you-NOM go-PROS **condition-with** liquor-AC buy-will-DC
"I will buy you wine on the condition that you go." (p74-147a) HYP

Minca-ka   o-**ketun** hamkkey nol-ala
Minca-NOM come-**if** together   play-IMP
"If Minca comes, play with her." (p74-147b) HYP

Nami-ka   w-ass-**umyen** kath-i   no-l   they-n-tey
Nami-NOM come-PST-**if**   together play-PROS supposedly
"If Nami came, (I) would play with (her)." (p75-148a) HYP

Lango (Noonan 1981)

Complex:

*-conjunction **kónô** introducing both protasis and apodosis*
-past tense marker **ònwòngò** in the protasis (p170)
-perfective aspect marker in the apodosis (p170)

kónô òwòngò   àtíé   I   cEm, **kónô** àmíyí
if   3SG-find-PERFV 1SG-be+present-**HAB**   with food **then** 1SG-give-**PERFV**-2SG
"If I had food, I would have given it to you." (p170-3) CTF

   1) Notes on counterfactuality marking

-ònwòngò: third person singular perfective of the verb **nwòngngò** ('find') serving as an auxiliary to form a past or pluperfect tense. "[It] can be placed either before or after the subject, and it is always conjugated in the [third person singular] perfective regardless of the person or aspect of the main verb" (p35). With the main verb in the progressive or habitual, **ònwòngò** results in a simple past. With the perfective it results in a pluperfect (p32-38).

in ctf conditionals the verbs are in the indicative and the protasis always precedes the apodosis

   2) Extra info on tense and aspect marking

-The Lango verb is not inflected for tense, but it is inflected for three aspects, viz. perfective, progressive and habitual. "Out of context, however, the aspects will be given a pragmatic tense assignment" (p32). Perfective verbs will be assigned a past interpretation, the habitual a present, and the progressive either a present or a future. Further, tense distinctions can be made by use of various auxiliaries, such as **ònwòngò**.

   3) Extra info on conditional marking

-Hypothetical conditionals are introduced by the conjuction **ká** ('if'). The apodosis gets **tE** if it follows the protasis sequentially in time and has its verb in the ordinary indicative if it precedes the protasis in linear time sequence (p169-70). **tE** ('and', 'and then') is a verb which is always conjugated in the habitual aspect and takes the semantic main predicate as its infinitive complement (Noonan 1992:231). **Ká** clauses usually precede the apodosis, but they may also follow it, then usually representing an afterthought (p170).

ká ìcó   òbínó   **'tE**   cEm
if   man 3SG-come-PERFV **3SG-and+then-HAB**   eat-INFIN
"If the man came, then he'll eat/ he ate (after he came)." (p159-1) HYP

ká ìcó   òbínó,   òcEmò
if   man 3SG-come-PERFV 3SG-eat-PERFV
"If the an came, then he had eaten (before he came)." (p170-2) HYP

òbínó   tèdò   **ká** rwòt òbínó
1PL-come-HAB cook-INFIN **if** king 3Sg-come-PERFV
"We'll cook if the king comes." (p170-4) HYP

Lavukaleve (Terrill 2003)

Complex:

-conjunction –le (marking potential adverbial clauses)
-**me:** habitual auxiliary in the apodosis (not marked for future tense)
-**past tense** marker in the apodosis realised by zero

aka　kini　taaveua-re-a　　　　　la　　　　　o-e-sia-**le**,
then　ACT　be.missing-NF-SG.F　SG.F.ART　3SG.F.O-SBD-do-**POT**
o-vea　　　　　ma-**me**
3.SG.F.O-know　3PL.S-[**PAST-**]**HAB**
"If [anything] was missing, they would have known it (but it never was)." (p436-816) CTF

1)   Notes on counterfactuality marking

-me: habitual auxiliary forms a complex predicate and "is used to express events which are habitual, characteristic or typical. It is also used for events which take some time to carry out" (p384). The auxiliary is formally identical to the lexical verb **me** ('continue'). It takes arguments according to the main verb's valency. It also takes verbal morphology, "including the subordinate adverbial suffixes anterior **–ge**, potential **–le**, the admonitive **–n**, the future **–re** […] and the agreement suffix. The auxiliary can only cross-reference the subject, never the object argument" (p385) (p384-395).
-past tense marker: Terrill does not gloss a past tense marker in the counterfactual sentence given, but there are a few reasons why I should argue for the presence of a past tense marker in the counterfactual apodosis: (1) in Lavukaleve past tense is always expressed by zero, (2) habitual marking does not combine with past tense marking, (3) Terrill makes a formal distinction between hypothetical and counterfactual conditionals, (4) habitual marking can occur in both hypothetical and counterfactual conditionals, so it is not responsible for the distinction between these two types of conditionals.

2)   Extra info on tense, aspect and mood marking

-There are two morphologically marked tense categories in Lavukaleve: the present (sg **–nu**, dual –nul, pl **–nuv**) and future tense (suffix **–re**). Past tense is always realised by zero. They are "not obligatory in contexts in which they are semantically appropriate" (p323) and cannot be combined with aspect or mood markers (p323-330).
-Lavukaleve distinguishes between imperfective (suffix **–ne**) and durative aspect (suffix **–nun** or **–na**). Aspect marking is not obligatory and cannot co-occur with tense or mood marking (p330-335).
-Lavukaleve has five morphologically marked categories of mood: admonitive (**-n**), punctual imperative (**-va, -ila, -iva**), durative imperative (**-ma, -mela, -ba**) hortative (**-me**) and abilitative (**-ne,, -nan**) (p335-345).

3)   Extra info on conditional marking

-Conditional clauses are signalled by the potential verbal suffix **–le**, which covers a number of related functions. It also marks hypothetical, counterfactual, predictive, concessive conditional ('even if'), temporal and hortative clauses. Potential clauses precede their main clause. Hypothetical, predictive and concessive conditionals have a future tense marker in the apodosis (p435-437)

SBD: subordinate:
in adverbial clauses with intransitive verbs, the logical intransitive subject is cross-referenced using an object prefix, and an invariant prefix **e-** holds the second prefix position, normally reserved for cross-referencing to the subject of a transitive verb.

me-ma   e-feu-**le**   e-le-ila
2.PL-take 1.PL.EXCL-go.inland-**POT**   3.SG.N.O-see-PCT.IMP-DU
"If we take you two inland, you must see it." (p431-803) HYP

aka   raine   kini a-e-feu-**le**,   foiga   a-ne-lai-**re**
then tomorrow ACT 3.SG.M.O-SBO-go.inland-**POT** PN.NTRL.SG.N 3.SG.M.O-2SG.S-tell-**FUT**
'The tomorrow if he comes inland, okay, you should tell him." (p436-815) HYP

uia   tamu o-e-me-**le,**   nei   ga
knife(f) no   3.SG.F.O-SBD-continue-**POT** coconut(n) SG.N.ART
e-koroi-la   me-**re**-m   finu
3SG.N.O-chop-NEG   HAB-**FUT**-SG.M   2SG.FOC
"If you don't have a knife, you (m) can't cut a coconut." (p393-730) HYP

Lezgian (Haspelmath 1993)

Complex:

Constr 1 (past/ present)	*Optional conjunction **eger** or **nagah** ('if') (p394)*
	-**t'a:** conditional mood marker on the protasis verb (conjunction function)
	-**na:** aorist tense marker on the protasis verb
	-**j:** past tense marker on both the protasis and the apodosis verb
	-**da:** future tense marker on the apodosis verb

<u>**Eger**</u> am   naq'   ata-**na-j-t'a**,   za
if   she:ABS yesterday come-**AOR-PST-COND['if']**   I:ERG
am   vokzal.d-a   gürüsmis iji-**da-j**
she:ABS station-INESS meeting   do-**FUT-PST**
"If she had arrived yesterday, I would have met her at the station." (p396-1102) CTF past

<u>lisanlu</u>   **tir**-**t'a**   am   za-qh   galaz ik'
engaged COP.**PST-COND['if']** she:ABS I-POESS with thus
raxa-**da**-c-**ir**
talk-**FUT**-NEG-**PST**
"If she were engaged, she would not talk to me like this." (p396-1103c) CTF present

1) Notes on counterfactuality marking

-**t'a:** conditional mood suffix which can be attached to any indicative verb form and to the aorist participle. It is used in conditional protases, concessive clauses, (correlative) relative clauses and indirect questions. Since it only occurs in subordinate clauses, I assume it has a conjunction function rather than a modal meaning (p345-47, 394-99, 425-427).
-**na:** aorist tense suffix used to refer to perfective events in the past (p142-43)
-**da:** future tense marker (p122)
-**j:** past tense marker (p122)

\# the ctf protasis verb is in the Past Aorist, the apodosis in the Past Future
\# defective verbs that do not have a Past Aorist and a Past Future use the simple past, such as the copula
\# Lezgian does not formally distinguish between past and present counterfactuals.

2) Extra info on tense and aspect marking

Lezgian has six tense-aspect categories: four basic ones (imperfective (**-z(a)wa**), future (**-da**), aorist (-**na**), perfect (**-n(a)wa**)) plus continuative (which occurs only in combination with imperfective (-**zma)** or perfective (-**nma**)) and past (-**j**) (which occurs only in combination with any of the other tense-aspect categories) (p140). Imperfective and future are based on the imperfective stem, aorist and perfect on the aorist stem (p122).

3) Extra info on conditional marking

-Conditional clauses are optionally introduced by conjunctions **eger** and **nagah** ('if') and have their verbs marked for the conditional mood. The apodosis verb is in the future tense, the protasis verb is in the aorist participle form (and conditional mood). In non-future hypothetical conditionals the usual tense markers are used in the protasis, such as the aorist, the imperfective and the perfect. These tense suffixes are always followed by the conditional mood suffix (p394-95).

Eger küne   ca-q^h galaz däwe   awu-**r-t'a**,
if   you.all:ERG we-POESS with   war   do-**AOP-COND['if']**
kün   allah.di   länetlams-**da**
you.all:ABS God (ERG)   curse-**FUT**
"If you wage war with us, God will curse you." (p395-1097c) HYP

ajal   ksa-**nwa-t'a**,   rak   aq'al-a
child   sleep-**PERF-COND['if']**   door   close-IMP
"If the child sleeps, close the door." (p395-1100) HYP

Ma'di (Blackings & Fabb 2003)

Simple:

Constr 1	-**esù:** freely placed tense shifting adverbial
	-**inflected** verb
	-**wà**: particle expressing possibility (modal meaning)
Constr 2	-**téè** (or **tébè**) + **di** (or **na**): freely placed tense shifting adverbial
	-**uninflected** verb (past form)
	-**rá**: particle expressing certainty and in combination with an uninflected verb forcing a perfective interpretation
Constr 3	-**téè** (or **tébè**) + **di** (or **na**): freely placed tense shifting adverbial
	-**inflected** verb
Constr 4	-**téè** (or **tébè**) + **di** (or **na**): freely placed tense shifting adverbial
	-**directive** verb

esú ní `**mu wà**
?find 2SG **N**-go **POSS**
"It should have been possible for you." (p463-62) CTF (S)
"You should have been allowed to go."
"You should have been able to go."
"You can really go."

téè **dì** m´-e-ngwí **rá**
earlier today this **1SG**-VE-return AFF
"I could certainly have come back by now." (p491-90) CTF (S)

téè **dì** ní `mu ná-ni
earlier today this 2SG **N**-go that-like
"You should have gone like that." (p491-91) CTF (S)

téè **dì** kò-mu nà-ni
earlier today this 3.**DIR**-go that-like
"He should have gone like that." (p491-92) CTF (S)

Complex:

Constr 1 (past)	-**késù**: freely placed adverbial that shifts the temporal reference to the past and introduces the protasis
	-**uninflected** verb in the apodosis (past form)
	-**rá**: particle expressing certainty and in combination with an uninflected verb forcing a perfective interpretation
Constr 2 (present)	-**késù**: freely placed adverbial that shifts the temporal reference to the past and introduces the protasis
	-**copular** construction without copular verb in the apodosis (nonverbal clause)

kesú   ópí ká dzó `si   endrè ní   nì   **ikó**   **rá**
[3-(N)-find Opi 3 house N-build mother BEN FOC] 3-finish AFF
"If it were Opi building a house for the mother, he would certainly have finished it by now." (p495-116) CTF (C) past

téè   **dì**   **m´-e-dzé**   údí   rì   **rá**
earlier today this 1SG-VE-buy new(S) DEF AFF
kesú nì   fo má ní rá   `   ʔi
[if   2S.DIR say 1SG BEN AFF] SPEC FOC
"By now I could certainly have bought a new one, had you told me." (p538-359) CTF (C) past

kesú ni   ʔI   ku,   ma ìjo
[if   2SG FOC NEG(N)] 1S absent
"Had it not been for you, I would be no more." (p539-360) CTF (S) present

1) Notes on counterfactuality marking

-esù: freely placed tense shifting adverbial based on **esú** ('find'). It shifts the temporal reference point into the past and creates an "implicature that the past situation no longer holds at the moment of utterance, but this is cancellable […]. The morphologically related word **kesú** shifts the point of temporal reference into the past (or sometimes just makes it hypothetical without a specifically past meaning) and also gives the interpretation 'if X had happened'" (p495). It can be interpreted as the directive form of **esú**, as **kà + esú**. Combined with an uninflected (past) verb it gives a past in the past meaning. "If the sentence with the uninflected verb also contains **rá,** […] the meaning is of an event which was future relative to some past temporal reference point" (p496). Combined with an inflected (nonpast) verb, it gives a past progressive, past habitual or a directive interpretation without directive morphology (p495-98).

-wà: particle expressing possibility, permission or ability. Combined with an inflected verb and **esú**, a 'perfection' reading is possible (p460-63).

-inflected, uninflected, directive verb: see tense & aspect marking

-téè (or **tébè**) + **di** (or **na**): ('should/could…at that time'). "**Téè** (or **tébè**) ('earlier today') is a freely placed noun of temporal location. […] When followed by a demonstrative **di** ('this') or **na** ('that') the constituent becomes a free adverbial. It shifts the temporal reference point back into the past" (p491) and adds a modal force. "**Di** ('this') is used for more recent and **na** ('that') for less recent. […] With an uninflected verb (normally past tense), it produces a past-in-the-past reading. When used with an inflected or a directive verb, it produces a directive-in-the-past reading" (p491).

-rá: this word comes at the ends of a sentence and has three meanings. It affirms an eventuality, perhaps with some evidential force and it functions as a modal of necessity and as a 'generic completive' indicating the completion of an eventuality. "**Rá** is generally not compatible with a present-tense interpretation" (p456). Combined with an inflected verb, it usually forces a future interpretation. When combined with an uninflected verb, it usually gives a perfective interpretation, indicating the completion of an eventuality (p451-459).

in complex counterfactual constructions the tense-shifting adverbial **téè** (or **tébè**) + **di** (or **na**) is optional in the apodosis, the particle **rá** is optional in the protasis

2) Extra info on tense and aspect marking

-In Ma'di, the distinction between inflected and uninflected verbs, and between the negation particles **ku** and **kuru** is a distinction in tense: between nonpast and past respectively. "A non-past clause is sometimes ambiguous between a present and a future interpretation, but in general a present interpretation is taken as the default interpretation unless a future interpretation is forced by the presence of some other element in the clause […] such as the affirmative modal **rá**. […] Present tense correlates with imperfective aspect, progressive or habitual. Nonpast (past and future) [sic] tense correlates with perfective aspect. Habitual and progressive can be expressed in past or future sentences by periphrastic means" (p19) (p133-190).

Directive verbs are translated with a bare imperative or a periphrastic construction with 'should'.

3) Extra info on conditional marking

-"A conditional clause is a subordinate clause with its full argument structure and an unsuffixed verb" (p537). It acts as a modifier and can be placed at the beginning or end of the clause, but cannot be focused. A conditional clause can contain a freely placed conditional adverbial **dzó** and can have directive modality. A conditional can also contain **sáà** ('even') (p567-39).

@ ópí @ e-dzí @ ìrá rì @ rá   kò-bà   oru
[Opi   3-VE.take beer DEF   AFF] 3.DIR-put up (@= **dzó**)
"Should Opi bring the beer, he should put it up (on a shelf)." (p538-355) HYP

mà   sì   láka   wáragà èndrù k´-esú-a   òbú
[1SG.DIR write PRBEN letter   today] 3-(N)-find-OBJ tomorrow
"Should I write to her a letter today, she will receive it tomorrow." (p538-356) HYP

Malayalam (Asher & Kumari 1997)

Simple:

-**debitive mood** marker (-**anam**, negative -**anta**) (modal meaning)
-**past tense** marker
-**perfect aspect (1)** marker
(-**at(e):** nominalising suffix)

naan pook-**eent**-**ata**-ay-**irunnu**   (pakse
I   go-**DEB-NOML**-[linking -ay-] [**PERF₁.**]**PST**   but
poo-y-i-[i]lla)   (my glosses)
go-[linking -y-]-PST-NEG
"I should have gone (but didn't go)." (p307-1540) CTF (S)

Complex:

Constr 1	-*conditional mood* marker: -**enkil**, or -**aal** *on the protasis verb*
	-**past tense** marker (-**i**)on the protasis verb
	-**perfect aspect (1)** marker on the protasis verb
	-**future tense** marker on the apodosis verb
	-**past tense** marker on the apodosis verb
	-**perfect aspect (1)** marker on the apodosis verb
Constr 2	-*conditional mood* marker: -**enkil** or -**aal** *on the protasis verb*
	-**past tense** marker (-**i**)on the protasis verb
	-**perfect aspect (1)** marker on the protasis verb
	-**past tense** marker (-**i**)on the apodosis verb
	-**eene(e):** particle on the apodosis verb

katta   mutal kittanam-**enkil**   kallane   utane
steal-**PST**-RP goods get-want-**COND['if]**   thief-ACC   immediately
pitikk-**anam**-ay-**irunnu** (my glosses)
catch-**DEB**-[linking -ay-][**PERF₁.**]**PST**
 "If (you) wanted to get the stolen goods, you should have caught the thief immediately." (p307-1541)
CTF (C)

maza peyt-**irunn-enkil**   naan puratte poo-**k**-illa-ay-**irunnu** (my glosses)
rain   fall-**PERF₁.PST-COND['if]**   I   outside go-**FUT**-NEG-[linking -ay-][**PERF₁.**]**PST**
"If it had rained, I should not have gone out." (p89-413) CTF (C)

aval nallavannam pathicc-**irunn-enkil**   jayikk-**um**-aay-**irunnu**   (my glosses)
she   well   study-**PERF₁.PST-COND['if]** pass-**FUT**-[linking -aay-][**PERF₁.**]**PST**
 "If she had studied well, she would have passed." (p89-414) CTF (C)

avan poo-y-**irunn**-ill-**enkil**   naan avaneyum   ksanicc**eene** (my glosses)
he   go-[linking -y-]**PERF₁**[.**PST**]-NEG-**COND['if]** I   he-ACC-also invite-**PST**
 "I would have invited him too if he had not gone." (p89-416) CTF (C)

aval nallavannam pathicc-illa-ay-**irunn-enkil**
she   well   study-NEG-[linking -ay-][**PERF₁.**]**PST-COND['if]**
jayikk-illa-ay-**irunnu**   (my glosses)
pass.**FUT**-NEG-[linking -ay-][**PERF₁.**]**PST**
"If she had not studied well, she would not have passed." (p89-415) CTF (C)

1) Notes on counterfactuality marking

-the **debitive mood** markers (-**anam,** negative -**anta**) are cliticised forms of **veenam** and **veenta.** The debitive mood suffixes are attached to the verb stem and express both moral and physical obligation (p306-307).
-**past tense** is marked by suffix –**i** added to the verb root or derived stem or by -**u** preceded by a range of consonants (p286).
-**perfect aspect (1)** marker takes the adverbial participle as base. Perf$_1$ markers have **irikkuka** as their base. It is a lexical verb ('sit', 'remain'), but has also some status as a 'being' verb. The past exponent of perf$_1$ is -**irunnu,** the present one -**irikkunnu,** and the future one -**irikkum** (p292).
-**conditional mood** forms are formed by adding the suffix -**aal** to the past tense stem of the verb or by adding -**enkil** to any of the three tense forms. Conditional forms only occur in conditional protases, so that I assume they have a conjunction function rather than a modal meaning.
-**eene(e):** particle on the apodosis verb (p89)

on p.41**, enkil** is said to be a conjunction, but in the examples it is glossed as COND
enkil is etymologically related to the verb of saying
past (perfect) debitive does not always express counterfactuality, cfr:

      naan pook-**anam**-aay-**irunnu** (my glosses)
      I   go-**DEB**-[linking -aay-]**PST[.PERF1]**
      "I had to go." (p307-1539)

in cases of unfulfilled conditions the conditional mood suffixes are added to perfect stems (p304)
conditional mood marker **-aal** is suffixed to the adverbial participle in unmarked conditions and to the perfect aspect adverbial participle in unfulfilled (=ctf) conditions (p334).

2) Extra info on tense, aspect and mood marking

-Malayalam distinguishes between the past (**-i, -u**), present (**-unnu**) and future tense (**-um** or periphrastic constructions) (p286-291).
-Apart from perfect aspect, it also distinguishes between perfective, imperfective, continuous and progressive aspect (p291-304).
-Malayalam further has indicative, conditional, imperative, optative, debitive, potential (ability, permission), hortatory, monitory and contingent mood. It can also express degrees of certainty and authority for assertion (p304-314).

3) Extra info on conditional marking

-There are various ways of stating a condition in Malayalam. Two of them are rare: the addition of -**il** or -**kil** to the verb root, and -**aakil** to the finite forms of verbs in any of the three tenses. More common ways are the addition of suffix -**aal** or -**enkil**. "A more complex variant of **enkil** is -**ennutenkil** (quotative particle **enne** +**unte** ('be') +**enkil**), which can be interpreted as 'if it is the case that'" (p88). Another marker of condition combines **enne** with a conditional in -**aal**, namely **vecaal** ('if you put it that'). The apodosis with past tense and the particle -**eene(e)** may also be used in hypothetical apodoses, but without a past perfect in the protasis (p87-90).

avan vann-**aal** (my gloss)   parayaam
he   come-**COND['if]**   tell-FUT-MOD
"If he comes, I shall tell (him). (p87-400) HYP

nii   var-unn-**enkil**   varuu;   naan poo-nu (my glosses)
you come-PRES-**COND['if]**   come.IMP I   go-PRES
"If you're coming, come; I'm going." (p88-404) HYP

Mangap-Mbula (Bugenhagen 1995)

Complex:

-so(=(m)be) alternates with **be** in the protasis	
-so in the apodosis	

Be/So (=(m)be) ti-posop   uraata, **so**   an-giimi zin.
NF/say=NF   3PL-finish work **say** 1SG-buy ACC-3PL
"If they had finished the work, I would have paid them." (p277-56) CTF

1)   Notes on counterfactuality marking

-so is a verb meaning 'to say, think, suppose, want' and it may be inflected to agree with the subject of the protasis. When it occurs with no subject agreement morphology, it is no longer verbal, but a modal adverb ('if') (p276). Since it does not occur in simple sentences and it translated with 'if', I assume **so** has conjunction function rather than a modal meaning. "The presence of the non-factual complementiser =**(m)be** freely fluctuates with its absence" (p276).
-Be is a modal auxiliary "used to encode propositions which the speaker is not asserting to have actually happened" (p xi).

2)   Extra info on tense and aspect marking

-Mangap-Mbula verbs contain no reference to time. It is the discourse context and the presence of various modal and temporal adverbial elements that establish the temporal reference of a clause (p118-199).
-As to aspect, imperfective aspect is expressed by verbal reduplication (p182) and expresses habitual, durative or progressive aspect. Perfective aspect is expressed by the aspectual adverb **kek** (p243) and the adverbial **makin** (p145)(the latter when the event encoded is presupposed). Negative perfect is expressed by the aspectual adverb **zen** (p243).

3)   Extra info on conditional marking

-Hypothetical conditionals also have **so (=(m)be)** in the protasis, but the apodosis is introduced by either **(i)nako** ((**i-na** (given information marker) + **ko** (uncertainty marker)) or **(to)na** ((**to** ('then') + **na** (given information marker)). Another type of conditional construction is used to encode necessary prerequisites for some other state of affairs. In such conditionals, the protasis contains the form **bela** and the apodosis is marked by **to(na)** (p276-78).

So-mbe   posop   uraata, **ina-ko**   an-giim=u.
Say-NF 2SG-finish   work **GIV-UC** 1SG-buy=ACC.2SG
"If you finish the work, then I will pay you." (p277-55) HYP

An-ur   moto-n   pini   **be** i-uulu   yo.
1SG-put eye-GEN.1SG REF.3SG **NF** 3SG-help ACC.1SG
"I am hoping (lit. putting my eye on him) that he will help me." (p158-316) NF

Be-la   60 toea stamp i-se   ro, **to-na**   i-la   Amerika
NF-go 60 toea stamp 3SG-ascend letter **then-GIV** 3SG-go America
"The letter must have a 60 toea stamp on it if it is to go to America." 'p278-62) HYP

Martuthunira (Dench 1995)

Simple:

Constr 1	-**counterfactual mood** marker on the verb
	(-**past** situation)
Constr 2	-**unrealized mood** marker on the verb
	(-**past** situation)

Thampa-rru   wiyaa manku-lha parla-a   parriingku-**marni**
almost-NOW maybe grab-PST   stone-ACC hit-**CTF**
warnmalyi-marta, nganaju-u   kartara-a-rru   pariingku-**marni**
stone-PROP   1SG.GEN-ACC jaw-ACC-NOW hit-**CTF**
piyuwa-ma-lalha-a   ngurnula-ngu-u   murla-a.
finish-CAUS-PST-ACC that.DEF-GEN-ACC meat-ACC
"[She] almost grabbed a stone and would have hit me with a stone, would have hit me in the jaw, me who finished up her meat." (p150-6.31) CTF (S)

Nhiingara jalya-ngarayungku-**ngulaanu** kapalya-ngara-a
this.PL   scrap-PL give-PASS.**CTF**   pet-PL-ACC
ngaliwa-wu-u   mungka-lwaa-lpurtu.
1PL.INCL-GEN-ACC   eat-PURPs=o-COMP
"These scraps should have been given to those pets of ours to eat [but for some reason they weren't]." (p150-6.34) CTF (S)

Ngawu, ngayu   puni-**lha** nyina-lu   ngurriny-tha, kurnta-**yaangu**
yes   1SG.NOM go-**PST**   sit-PURPss swag-LOC   shame-**UNREAL**
Ngayu   ngalarri-lha-rru   warnu. Kuliyanpa-**yaangu**
1SG.NOM forget-PST-NOW   ASSERT think-**UNREAL**
kalika-a-lwa kalyarran-ta nyina-wayara-a
one-ACC-ID branch-LOC sit-HAB-ACC
"I truly forgot. [I] ought to have thought of that one that always sits on a branch, [but I didn't]." (p152-6.41) CTF (S)

 "Yes, I went to sit on that swag, [I] ought to have felt 'shame'." (p152-6.40) CTF (S)

1) Notes on counterfactuality marking

-counterfactual mood is expressed by suffixes which vary with the conjugation of the verb. The basic form is **–n-marni**. The passive counterfactual is coded by the suffix **-n-ngulaanu**. They occur in both counterfactual sentences and in non-counterfactual deontic contexts. The counterfactual inflections indicate "events which did not happen or which are not happening now, but which would have been expected to have taken place or be happening if other events had turned out differently" (p150). Counterfactuals may also refer to the future. "Here the speaker predicts that the event described will not happen unless current circumstances change in some way" (p151). The context makes clear that time reference is to the future (p150-51).

-**past** situation: the surrounding sentences have past time reference (past tense marker).

-**unrealized mood** suffixes indicate that the event denoted by the verb "did not happen, is not happening or will not happen even though there is every expectation that the event ought to happen. Usually the speaker is baffled as to the possible cause of the non-occurrence of the event" (p151). The basic form of the suffix is **–n-aangu** (the -n- differs according to the three conjugations) (p151-52).

2) Extra info on tense and aspect marking

-Martuthunira distinguishes between past, present and future tense, which are expressed by suffixes attached to the verb. Each tense has three allomorphs (for the three conjugations).

-"Aspect is not an important verbal category in Martuthunira although unmarked aspectual readings are implied by all verb inflections. With the exception of the imperfective present tense, subordinate relative, and habitual inflections, all other verbal categories are essentially perfective. Other syntactic devices, such as the use of copulas and temporal nominals and clitics, conspire to provide additional aspectual specification of events" (p137).

3) Extra info on conditional marking

-Hypothetical conditional clauses always contain the conjunction **wii** and may be finite relative clauses marked with a locative complementiser suffix or non-finite subordinate contemporaneous clauses, which are "marked by a special verbal inflection and typically have the same subject as the controlling clause. […] [The latter clauses] are not marked for tense, aspect or mood, but assume those of the controlling clause" (p247)..

Nganamarnu **wii** pithirri-npa-rra   **wii**, ngurnaa   paya-rninyji jami-i.
anyone   **if**   chill-INCH-CTEMP   **if**   that.ACC   drink-FUT   medicine-ACC
"If anyone has a chill, they drink that medicine." (p247-10.29) HYP

Ngartil **wii** nhuwana   puni-rra   thawun-mulyarra, ngartil waruul
again   **if**   2PL.NOM   go-CTEMP   town-ALL   again   still
ngayu   yungku-layi nhuwana-a warnmalyi-i.
1SG.NOM   give-FUT   2PL-ACC   money-ACC
"If you go to town again, I'll give you money yet again." (p247-10.30)

Ngunhaa   pilakurta piyuwa-npa-lha-**la**   **wii**, nhurnti-npa-lha-**la**   **wii**,
that.NOM carpenter finish-INCH-PST-**LOC**   **if**   dead-INCH-PST-**LOC**   **if**
ngana-rru   kana   yilhi, mir.ta **wii** murnta-lalha   ngurnaa   pilakurta-a?
who-NOW   RHET   chips   not   **if**   take.from-PST   that.ACC   carpenter-ACC
"If when that carpenter is finished, when he has died, who will have the chips (will have the skill to carve) if they didn't take them from that carpenter?" (p242-10.7) HYP

Mekens (Galucio 2001)

Complex:

Constr 1	*Temporal-conditional conjunction ((k)a)abeese*
	-**past tense** marker in the protasis
	-**modal** particle **eteet** in the apodosis
	-**irrealis furure** particle **pegat** in the apodosis
Constr 2	*Temporal-conditional conjunction ((k)a)abeese*
	-**modal** particle in the protasis (deontic)
	-**future tense** marker in the protasis
	-**modal** particle **eteet** in the apodosis
	-**irrealis furure** particle **pegat** in the apodosis

kiri=eri=ep   ka-**t**   te   te   se-poetop   eat   **pegat**   **eteet**
child=ABL=really   go/come-**PST** truly FOC 3C-knowledge acquire **IRR.FUT would**
 "If it had been really since childhood, then I would have learned." (p71-54e) CTF

se-aso   **pegat**   **eteet** ikão   se-aso-a   **kot-kaat**   **aabese**
3C-bathe **IRR.FUT could** that.time 3C-bathe-THEM **FUT-DESID**.3 **if/when**
 "He could have bathed at that time, if he wanted to bathe." (p122-22a) CTF

1) Notes on counterfactuality marking

-**past tense** can be expressed covertly or overly. When overtly expressed, the past tense markers **-t** and **-r** are in complementary distribution (phonologically conditioned) (p91).
-**modal** particle **eteet** is translated as "could' or 'would'. "[It] always occurs following a tense marking postverbal particle" (p70-71).
-**irrealis furure** particle **pegat** also is a TAM postverbal particle (p69).
-**modal** particle (deontic): **kot kaat** : desiderative third person, with **kot** being the immediate future postverbal particle (p69).

The combination of **eteet** and **pegat** also occurs in (past) hypothetical conditionals, but the protases then do not contain any past tense marker or modal with future marker.

2) Extra info on tense, aspect and mood marking

-In Mekens tense is expressed by suffixes and postverbal particles. Past tense is -when overtly marked-expressed by the suffixes **-t** and **-r** (allomorphs). Future tense is expressed by the postverbal particle **pek**; irrealis future by **pegat** and immediate future by **kot** (p68-71, 88-95).
-Aspect is also marked by suffixes and postverbal particles. Mekens distinguishes between habitial, simultaneous and resumptive aspect (p68-71, 88-95).
-Further, Mekens also has postverbal particles expressing mood, such as the hortative particle **soga** and the desiderative particles **kot-ke** and **kot-kaat** (varying with subject number) (p69).

3) Extra info on conditional marking

-"Conditional clauses are expressed in Mekens by the same subordinator particle used in temporal sequence clauses" (p198). The distribution of the particle is also the same. Normally **((k)a)abeese** follows the protasis, but it can also precede it when the apodosis comes first (p198-99).

Aikwat	sese	o-itkwa	**kaabese**	o-ser-a	par=õt
Mosquito	many	1SG-sting	**if/when**	1SG-leave- THEM	FUT=I

"I'll leave if lots of mosquitos sting me." (p198-74b) HYP

asi	se-iarap-kwa	pegat	eteet	pera	so-a	i-mi-a	**abese**
mother	3C-happy-TR	IRR.FUT	would	macaw	see-THEM	OM-kill-THEM	**if/when**

 "My mother would be happy if I saw and killed a macaw." (p121-19b) HYP

Muna (Van den Berg 1989)

Complex:

> *Conjunctions introducing conditional protasis (see hyp cond)*
>
> **-irrealis** marker on the verb of both the protasis and the apodosis (modal meaning)

ane pa   na-mai   kapala, pa   a-k[um]ala
if   FUT.not 3SG.**IRR**-come ship   FUT.not 1SG.**IRR**-go
"If the ship won't come, I won't go." (p259-215) HYP
"If the ship hadn't come, I wouldn't have gone." CTF

ane paise,   pa   a-po-ghawa   bhe ama-ku
if   FUT.not FUT.not 1SG.**IRR**-REC-get with father-my
"If not, I would not have met my father." (p259-216) 'negative CTF'(Van den Berg)

1) Notes on counterfactuality marking

-irrealis mood is expressed by a paradigm of subject markers that are prefixed to the verb. The three verb classes each have a different paradigm. "The irrealis has two primary uses:
-it refers to the future, or it expresses a wish, a desire or an intention
-it is obligatorily used in negative clauses" (p57-59)

#When a verbal clause referring to the future is negated, the negator **pa** or **pae** is used, which have no difference in meaning. Verbs following these negators are all in the irrealis mood (p209-11)

2) Extra info on tense and aspect marking

-Muna only has a set of futurity markers (**-ho, na-so),** but it does not mark past, present and future tense. Past and present clauses always are in the realis mood; future clauses in the irrealis mood. As to aspect, Muna has repetitive (-**Ci**), simultaneous (**ka- + red.**), habitual (**manso-, ngko-, para-**), perfective (**-mo)** aspect markers.

3) Extra info on conditional marking

-Conditional clauses are introduced by **ane** ('if') or **barangka**, or both. Another conjunction introducing conditional clauses is **sumano** (sometimes suffixed with **–mo)** 'if only, provided that'). In conditional clauses, both realis and irrealis forms are found. According to Van den Berg, it is not yet clear which factors determine that choice (p258).

barangka no-ala   kenta-hi-no, ne-gholi-ane   kahitela
if   3SG.**R**-popular fish-PL-his 3SG.**R**-buy-it maize
"When his fish sold well, he would buy maize with it." (p258211) HYP

ane da-[m]ekiri-e,   no-bhie   sepaliha karadhaa-ku
if   3PL.**IRR**-think-it 3SG.R-heavy very   work-my
"Come to think of it, my work was very heavy." (p258-210) HYP

ane na-r[um]ato   kapala, ak[um]ala   we   Jakarta
if   3SG.**IRR**-arrive ship   1SG.**IRR**-go LOC Jakarta
"When a/the ship comes, I will go to Jakarta." (p259-214) HYP
"If a ship would come, I would go to Jakarta." HYP

Nama Hottentot (Hagman 1973)

Complex:

Conjunction ‘oo (‘if’)
-kà: indefinite tense marker in both the protasis and apodosis
-**hàã:** perfective aspect marker in both the protasis and apodosis

=xaríróse-ku   **kà**   !’ãu **hãá**   **‘oo**-ku   **kà**   !xóó-hè   tama **hãá**
a little bit-M.PL   **INDEF**   wait **PERFV**   **if**-M.PL   **INDEF**   catch-PASS   NEG   **PERFV**
 "If they had waited a bit, they would not have been caught." (p238) CTF

1) Notes on counterfactuality marking

-kà: indefinite tense particle which "describes an event whose time of occurrence is indefinite, and, hence, the occurrence of the event itself is indefinite" (p122). It occurs in conditional sentences and other embedded sentences, such as those introduced by the clause relator **‘ii** ('so that', 'that') (p122).
-hàã: perfective aspect particle. It is also a stative verb meaning 'to exist' or 'to be in a place'. The two are different morphemes in the language today, but the verb is undoubtedly the etymological source of the aspect marker (p128-131, 181-183).

2) Extra info on tense and aspect marking

-Nama distinguishes five tenses: the remote past (**kè** (particle)), recent past (**kò** (particle)), present (zero), future (**nìi** (root)) and indefinite tense (**kà** (particle)) (p120-23).
-Nama distinguishes three aspects: punctual (zero), imperfective (form depends on tense marker (they form together a portmanteau morph)) and perfective aspect (**hàã,** followed bij **‘ìi** or **hàã** depending on the tense) (p123-30).

3) Extra info on conditional marking

-Conditional clauses are embedded constructions with clause relator **‘oo** ('when') in clause-final position. It is only when the embedded sentence is in the indefinite tense that the relator means 'if'. Hypothetical conditional clauses thus have indefinite tense in the protasis, while the apodosis is marked for indefinite or future tense. "Occasionally, an embedding construction with **‘oo** may be initialised to precede a sentence conjunction **‘oo** 'then' in the matrix sentence, with a resulting sequence **‘oo ‘oo**" (p239) (p237-39).

tsií =hòmi-kxm **kàrà**   **‘oo**-kxm ke   //nãá !hùùp tì
and ly-1PL   **INDEF**.IMP **if**-1PL   DECL that land ASSOC
kòpa-ku   =’án   títe
language-M.PL   know   FUT.NEG (my glosses)
"And if we were lying, we would not know the languages of that land." (p238) HYP

mùuta **kà**   **‘oo** ‘oo-ta   ke nií =’án
see   **INDEF** **if**   then-1SG DC FUT know (my glosses)
"If I see, then I will know." (p239) HYP

Nootka (Davidson 2002)

Simple:

Constr 1	-**perfective aspect** marker on the verb
	-=**'a:h**: optional irrealis marker on the verb
	-=**(m)it**: past tense marker on the verb
	-=**(m)a'**: indicative mood marker on the verb
Constr 2	-=**qu:**: conditional marker on the auxiliary (modal meaning)
	-**perfective aspect** marker on the main verb

wa'='al=we'ʔin   Kʷatjat   ʔaqi-s=**qu:**=s   naq-(y)uʔal
say=TEMP=QT   Kwatyat   what–do=**COND**=1sg   see–perceive.**PERFV**
"Kwatyat said, "How could I have seen him?"" (p278-395) CTF (S)

hayu-i:yip=**a:'h=(m)it=(m)a'**=ʔic   lisal   ʔis   mucmuhaq
ten–obtain.**PERFV=IRR=PST=INDIC**=2sg blanket and bearskin
"You would have got the ten blankets and the bearskin." (p315-472b) CTF (S)

Complex:

Constr 1	*Optional conjunction ʔuyi ('if, when')*
	-=**qu:**: conditional marker on the protasis verb (modal meaning)
	-=**(m)it**: past tense marker on the protasis verb and apodosis verb
	-**perfective aspect** marker on the apodosis verb
	-=**'a:h**: optional irrealis marker on the apodosis verb
Constr 2	*Optional conjunction ʔuyi ('if, when')*
	-=**qu:**: conditional marker on the protasis verb (modal meaning)
	-=**(m)it**: past tense marker on the protasis verb and apodosis verb
	-**perfective aspect** marker on the apodosis verb
	-=**'i:k**: future tense marker on the apodosis verb

caq-sa'p=**a:'h=(m)it**=(m)a'=ah   sut-(c)il[L]
on.end–CAUS.**PERFV=IRR=PST**=INDIC=1sg   2sg–do.to
qʷa-mihsa=**(m)it=qu:**=s
do.thus–want.to=**PST=COND**=1sg
"I would have set you on end if I had wanted to." (p315-472a) CTF (C)

li-**cil='i:k=(m)it**=qa'   **ʔu-yi**
shoot–**PERFV=FUT=PST**=SUBOR **so.and.so–at.X.time**
pu'na'kʷ-(q)h=**(m)it=qu:**
gun–have–while=**PST=COND**
"... that they would have shot if they had guns." (p321-486) CTF (C)

1) Notes on counterfactuality marking

-**perfective aspect** is expressed by suffix **–sil** and its allomorphs, or is inherent in the meaning of a lexical suffix added to the verb or of the verbal root itself (p217).
-=**'a:h**: irrealis clitic which occurs optionally in counterfactuals and future imperatives. It also occurs in conative sentences, denoting an attempted action. It further reinforces the past tense denoting 'deceased' on kin terms and is obligatory with the bound root **hi-** ('unable') (p315-16).
-=**(m)it**: past tense clitic which is a relative past marker in that it "indicates time reference prior to the discourse-established time reference rather than absolute past time reference" (p105).
-=**(m)a'**: indicative mood clitic. Indicative mood is "the unmarked mood for assertion in conversation" (p267).
-=**qu:**: conditional clitic occurring in conditional protases, simple counterfactuals and complement clauses of certain predicates ('be afraid', 'decide'). It may also be used as an indefinite or non-specific article in relative phrases, replacing the regular article clitic. It may finally indicate a habitual action or situation as well (p276-80). Since it also occurs in simple counterfactuals, I assume it has a modal meaning, rather than a conjunction function.
-=**'i:k**: future tense clitic (p316).

2) Extra info on tense and aspect marking

-In Nootka, sentences with no overt tense marking are non-future and are interpreted as having either present or past time reference. "Past and future tense clitics in the predicate indicate time reference relative to that already established in the discourse" (p104-5). Nootka has a relative past tense clitic (-=**(m)it**) and three future tense clitics: =**'i:k** (future), =**yik** (irrealis future) and =**ʔa:ql** (intentive future) (p104-5, 305, 321-22).
-Nootka further distinguishes two aspects: perfective and imperfective with the latter comprising graduative, continuative, durative, repetitive and iterative aspect (p217-51).

3) Extra info on conditional marking

-Conditional constructions all have the conditional clitic in the protasis predicate and may optionally be introduced by the conjunction **ʔuyi** ('if, when', literally 'at such and such a time'). The conjunctive particle **ʔat** ('even if') often reinforces a concessive conditional meaning (p276-78).

[wi-si:kʷ-'a:l[IterL]='al='at=**qu:**   qʷama'   ʔathi']
[incomplete–do–ITER=TEMP=PINV=**COND** as.many.as   night]
ʔu's-sila='al='at
sth–happen.PERFV=TEMP=PINV
"If one does not carry things out to completion every night, something bad happens to one." (p276-391) HYP

qah-sa'p=ʔa:ql=(m)a'=ah   sut-(c)il[L]
dead–CAUS.PERFV=INTENT=INDIC=1SG   2SG–do.to
[**ʔu-yi**   wis-'aql=**qu:**=k   hu'ya'l]
[**so.and.so–at.X.time['if']**] lazy–inside=**COND**=2SG dance]
"I shall kill you if you are too lazy to dance." (p277-392b) HYP

Pipil (Campbell 1985)

Simple:

Constr 1 (past)	-**skiya (-t):** conditional marker on the verb (modal meaning)
	-**tu-:** perfect participle marker
Constr 2 (present)	-**skiya (-t):** conditional marker on the verb (modal meaning)

ahsi-**tu-skiya**
arrive-**PFP-COND** (my glosses)
"She would have arrived." (p68) CTF past (S)

ni-k-kwa-**skiya** pero tesu ni-maya :na
I-it-eat-**COND** but   no   I-hunger
"I would eat it but I'm not hungry." (p136-6) CTF present (S)

ni-mits-maka-**skiya** se : mu-tamal   pero tesu ni-k-piya
I-you-give-**COND**   a   your-tortilla but   no   I-it-have.
"I would give you a tortilla but I do not have (any)." (p136-5) CTF present (S)

Complex:

Constr 1 (past)	*no conjunction equalling 'if'*
	-**skiya (-t):** conditional marker in both protasis and apodosis (modal meaning)
	-**tu-:** perfect participle marker in both protasis and apodosis
Constr 2 (present)	*no conjunction equalling 'if'*
	-**skiya (-t):** conditional marker in both protasis and apodosis (modal meaning)

yaha ahsi-**tu-skiya,**   ni-k-taxta :wih-**tu-skiya**
he   arrive- **PFP -COND**   I-him-pay- **PFP-COND**
"Had he come, I'd have paid him." (p135-2) CTF past (C)

ni-k-pix**-(s)kiya**   tumin,   ni-k-kuwa-**skiya** turuh
I-it-have-**COND** money, I-it-buy-**COND** cow
"Had I money, I'd buy cows." (p135-3) CTF present (C)

1) Notes on counterfactuality marking

-skiya: conditional suffix attached to the verb root (=present stem) (**-skiya** is sg, **-skiya-t** is pl). It has the approximate meaning of "would" in English, although some speakers tend to translate these forms with "want" or "would like to". "This 'desiderative' connotation may be ultimately due to Spanish influence, since it is often translated into Spanish with the subjunctive and Spanish subjunctives can have both the 'conditional' and the 'desiderative' senses" (67-68).
-tu-skiya(-t) : perfect conditional suffix attached to the verb root, composed of **-tu-** 'perfect participle' and **-skiya(-t)** 'conditional'. Its meaning equals the English "would have" (p67-68).

2) Extra info on tense and aspect marking

-Tense and aspect are marked on the verb. Pipil distinguishes between (p65-70):
-present: no affixes
-preterite: suffix alters according to verb class: **-ki, 0, -k**
-perfect: **-tu-k** (sg), **-tiwi-t** (pl)
-conditional: **-skiya(-t)**
-perfect conditional : **-tu-skiya(-t)**
-future : **-s(ke)t)/** periphrastic constructions
-desiderative: **-s-neki**
-imperfect: **-ya**
-past imperfect: **-tu-ya**

3) Extra info on conditional marking

-Conditional clauses are introduced by the conjunction **(a)su** 'if'. The conditional marker **-skiya** does not occur in these hypothetical conditionals (p135-136).

Asu ahsi   yaha   n-u: ni-k-taxta:wia
If   arrive   he   I-go   I-him-pay
"If he arrives, I am going to pay him." (p135-1) HYP

Slave (Rice 1989)

Simple:

Constr 1	-**optative** marker on the verb (modal meaning)
	-**áló:** unrealised past marker
Constr 2	-**woléni:** future tense marker (with modal meaning)
	-**perfective** 'mode' on the verb

dú   náhkale ʔeghálaiidá **woléni**
now morning 1SG.work**ed FUT**
"I should have worked this morning" (p419-134) CTF (S)

ʔeyi   ʔaoht'í   **áló**
there 1SG.**OPT**.go **PST.UNREAL**
"I should have been there." (p414-88) CTF (S)

Complex:

Constr 1	*Conjunction **nidé** ('if')*
	-**perfective** mode marker on the protasis verb
	-**ilé:** past tense marker in the apodosis
	-**sóni:** marker of uncertainty in the apodosis (modal meaning)
Constr 2	*Conjunction **nidé** ('if')*
	(-**perfective** mode marker on the protasis verb)
	-**ló:** evidential/dubutative marker in the protasis?
	-**olí:** future tense marker in the apodosis

ʔeyi ʔayeht'í **nidé** natsiowi gha   íle **ilé sóni**
there 1SG.**was if**   3.occur   COMP NEG **PST UC**
"If I had been there, it might not have happened." (p1053-30) CTF (C)

megháehnda íle   lo   **nidé** dahetla **olí**
1SG.see.3   NEG   [EVID/DUB]   **if**   3.is loose **FUT**
"If I hadn't seen him, he would have gotten loose." (p1053-33) CTF (C)

ʔeyi chu ʔénehká   sekóé   níanila
it   and 1SG.chopp**ed** down 1SG.house   1SG.**brought** back.PL O
loo   **t'áh**   nezu   **olí**
EVID **because ['if']** 3.is good **FUT**
"It would have been good if I had chopped them down and brought them back to my house." (p410-53) CTF (C)

1) Notes on counterfactuality marking

-optative mode marker on the verb: prefix **ghu-** or **u-** in position 11 expressing desire or potentiality (p548).
-**áló:** particle indicating an unrealised intention in the past; it always occurs with an optative verb (p414).
-**woléni:** future mode particle. "[It] is an optative verb form that represents future intentionality". […] With a perfective verb, it indicates unrealised past intention" (p418-19) with some notion of obligation involved (p419).
-perfective 'mode' on the verb is expressed by a the prefix **ñ-**, but the form of a perfective verb also depends on the theme category of the verb and the conjugation marker (amongst other) (p486-547).
-**ilé:** perfective form of the verb 'be'. "It is used with an imperfective or perfective mode verb to specify an action completed in the past, and with an optative mode verb to indicate an unrealised event in the past" (p420).
-**sóni:** particle indicating "uncertainty on the part of the speaker" (p413) (my regarding this particle as constituting the counterfactual meaning is based on only one example, so it might be optional)
-**olí (wolé/olé):** optative verb form of the verb theme **0-le** 'be'. It is used following the verb to indicate future tense, but when it occurs with an if-clause marked for perfective mode, it expresses an unrealised action in the past (p418).

In the two sentences with **olí** I found **ló (loo, lóó, lo, no, nó),** the evidential/dubitative particle in the protasis

2) Extra info on tense and aspect marking

-Slave has a very complex verbal morphology with at least 13 prefix positions. It distinguishes four 'modes': imperfective (translated as present), perfective (translated as past), optative and future.
-Slave further distinguishes nine aspects: momentaneous, continuative, durative, semelfactive, conclusive, transitional, compartive, repetitive, and neuter. There are four compounding aspects: progressive, costumary, distributive and multiple (p425-434).

3) Extra info on conditional marking

-Conditional clauses are marked by the subordinating conjunctions **ʔenidé, nidé, ndé, néh, ʔedé** ('if, when, whenever') which occur clause-finally (p1052-1055).

ʔits'é   gehk'é   **nidé**   segha   máhsi
moose 3PL.schoot **if**   1SG.for thanks
"If they shoot a moose, I'll be greatful." (p1052-27) HYP

dudiʔíh   **nèh**   etse   gha
2SG.are gone **if**   3.cry   FUT
"If you (sg) are gone, she will cry." (p1053-33) HYP

Somali (Saeed 1999)

Simple:

-conditional (= irrealis) mood marked on the verb (modal meaning)

Wuu odhán **lahaa** (not glossed)
"He would say it" HYP, "He would have said it" CTF (p100)

Complex (present):

Periphrastic construction functioning as conjunction (see hypothetical conditional marking)
-**conditional** (= irrealis) mood marked on the protasis verb (modal meaning)
(-**waa**: sentence type marker: positive conditional, apparently not obligatory)

haddii dalku   beero falan,   guryo   iyo adduun
time-the country-the farms plough-INF houses and wealth
badan lahaan   **lahaa**   dan   bay
much   have-INF   [**having.be.PST.3SG(=COND)**] advantage FOC+they
kuu   ahaan   layad inaad   u   dagaalantaa
you+for be[:INF] have   that-you for   fight
 "If the country had ploughed farms, houses and great wealth, there would be profit for you in fighting for it." (p223-63) CTF (present)

1) Notes on counterfactuality marking

-The conditional mood "signifies a hypothetical situation in the present or past" (p91). It is formed by the adjective **léh** meaning 'having, possessing' acting as the complement of past simple forms of **yahay** 'be'. "As is usual with adjectives the past tense of the copula […]fuses with the adjective stem, e.g. **léh** + **ahaa** >**lahaa** '(I/He was having/had')" (p91). The form of the copula alters according to person and number of the subject. The main verb infinitive precedes this auxiliary. The negative forms are not auxiliary constructions (p91). As the conditional also occurs in simple sentences, I assume it has a modal meaning, rather than a conjunction function.
(-**waa** is a particle signalling the sentence is a conditional one (p119).)

2) Extra info on tense and aspect marking

-Somali distinguishes between past, present and future tense and simple, progressive and habitual aspect. Not every possible combination of these categories occurs. The ones possible are past simple, past progressive, past habitual, present habitual, present progressive and future, each having its own verbal paradigm with suffixes or auxiliary constructions. Tense and aspect are marked in declarative sentences, but not in potential, optative and conditional ones (p84-85).

3) Extra info on conditional marking

-"Conditional clauses are headed by the noun **hád** 'moment, point in time' suffixed with the definite article **–tii** to form **haddíi**. Haddíi coalesces with subject clitic pronouns and the negative word **aan"** (p222). The protasis may be preceded by the intensifier **xátaa** 'even' (p222). The verbs are not marked for the conditional mood which signals counterfactuality (p223).

haddaad	dhir	iyo	dhagax	dooneyso	badi	baad	u	helaysaa.
time+the +you	trees	and	stone	want	plenty	FOC+you	in	find

 "If you want trees and stones, you will find them in plenty."(p222-61) HYP

Xátaa haddùu	roob	da'ó,	waa	wákhti	dambé	imminka	ín	la	nabad	geliyó
Even time+the +it	rain	falls,	DEM	time	late	now	in	one	peace	enter: CAUS

midháha
crops-the
"Even if it rains, it's too late for the crops to be saved." (p222-62) HYP

Supyire (Carlson 1994)

Simple:

-**yaa**: deontic modal verb
-**mpyi**: past tense marker
-**à**: perfect tense marker
(-**subjunctive** complement)

U	**mpyi**	**à**	**yaa**	u	**Ø**	kare	ná	ceèni	ì	Bàmàkwo	e
He	**PST**	**PERF**	**ought**	he	**SUBJ**	go	with	woman.DEF	with	Bamako	to

"He ought to have gone with the woman to Bamako." (p426-11b) CTF (S)

Complex:

Constr 1 (past)	*counterfactual conjunction **ampyi** or **kampyi** ('if')*
	-**à**: perfect tense marker in the protasis
	(-**mpyi**: past tense marker in the protasis)
	-**mpyi**: past tense marker in the apodosis
	-**na**: progressive aspect marker in the apodosis
	-**sí**: future tense marker in the apodosis
Constr 2 (past)	*-**ná m-pyi**: counterfactual auxiliary complex in the protasis*
	(-**à**: perfect tense marker in the protasis)
	-**mpyi**: past tense marker in the apodosis
	-**gú/kú**: potential auxiliary in the apodosis
Constr 3 (past/ present)	*counterfactual conjunction*
	-**mpyi**: past tense marker in the apodosis
	-**na**: progressive aspect marker in the apodosis
	-**sí**: future tense marker in the apodosis

Ámpyi	u	**mpyi**	**à**	pa,	mìi	**mpyi**	**na**	**sí**	ù	bwòn
If.CTF	he	**PST**	**PERF**	come	I	**PST**	**PROG**	**FUT**	FP.him	hit

"If he had come, I would have hit him." (p571-54d) CTF (C) past

U	**ná á nì**	pa,	mìi	**mpyi**	**na**	**sí**	ù	bwòn
He	**CTF**	come	I	**PST**	**PROG**	**FUT**	FP.him	hit

"If he had come, I would have hit him." (p576-68) CTF (C) past

Ku	**ná m-pyi**	màràfáyì	yi	mpyi	bòmpilá	à
It	**CTF.COND**-be	guns	they	were	baboons.DEF	to
wùù	mú	'lémú	**mpyi**	**gú**	m-pì	nínjáà	de!
our	also	appearance	**PST**	**POT**	FP-be.ugly	today	EXCLM

"If the baboons had had guns, say, we would have been in sorry state today." (p578-72) CTF (C) past

Kámpyi pi mù shùùnnì **mpyi a** bè,
If.CTF they also two **PST** **PERF** be.in.harmony
pi **mpyi na sí** ndé pyi pi-yè nà mé
they **PST** **PROG FUT** this do they-REFL on NEG
"If they had gotten along together, they would not have done this to each other." (p578-74) CTF (C)
past

Ámpyi yìi cyèebíí màha m-pyi àmunì mé,
If.CTF you.PL women.DEF HAB IP-be thus NEG
Mìi **mpyi na sí** m-pyì mu á pyà
I **PST** **PROG FUT** FP-become you to child
"If you women weren't like that, I would have become a child for you." (p369-129) CTF (C) present

1) Notes on counterfactuality marking

-**yaa**: deontic modal verb taking a subjunctive complement and meaning 'ought', 'should', 'must'. "As a transitive verb it means 'repair', 'fashion' and 'create' and as a stative intransitive 'be right', 'be fitting'" (p425). It is the only modal verb that does not allow the omission of the complement subject noun phrase (p425-26).

-**mpyi**: past tense copula "which can combine with other TAM markers to form compound past tenses" (p329). It is derived from the verb **pyi** ('do', 'make', 'become') to which a nasal prefix is added. Combined with the perfect tense, it gives rise to a pluperfect. When it occurs with the future auxiliary **sí** or **cáá** it yields a future in the past (p329-34, 353-58).

-**à**: perfect tense auxiliary, "derived from an original form **ma**, which has also given rise to the same subject narrative conjunction **mà**, which in turn through elision of the initial consonant has yielded the serial connective **à**" (p337). The perfect tense has the prototypical characteristic of indicating perfectivity, current relevance, anteriority and counter-sequentiality (p337-39).

-**na**: progressive aspect auxiliary which is obligatory when **mpyi** combines with **sí** to form a future in the past. It is a relic of the origin of the future auxiliaries as imperfective verbs (p353-58).

-**sí**: future tense auxiliary which is almost certainly derived from the imperfective form of the verb **shya** ('go') (p334-37).

-**gú/kú**: epistemic modal auxiliary coding potentiality. The two forms are allomorphs (p357).

-**ná á nì**: auxiliary complex, probably consisting of the remote past tense auxiliary **ná**, the serial connective **à** and the recent past auxiliary **nî**, which was originally a perfect marker. In this analysis the complex would have a past perfect meaning (p576-77).

ná m-pyi: auxiliary complex consisting of the remote past tense auxiliary **ná** and the past tense copula **mpyi**. This complex is especially used in negative protases, since the complex **ná á nì** is incompatible with the negative auxiliary. **Ampyi** then is a reduced form of this complex (p576-77).

There is no formal difference between past and present counterfactual constructions of the third type
In fact, the different protases mentioned alternate freely, as do the different apodoses. So, more combinations are possible.

2) Extra info on tense and aspect marking

-In Supyire tense, aspect (and modality) are coded by affixes, auxiliaries and/or serial verbs. As to tense, Supyire makes a distinction between past, present, future and perfect tense. Within the past tense, there is a remoteness distinction between 'earlier today' and 'yesterday and earlier' (p328-62).
-Supyire makes the basic distinction marked on the verb between perfective (unmarked) and imperfective aspect (suffix). Progressive and habitual aspect are coded by auxiliaries and the inceptive and terminative are expressed by means of serial verbs (p307-28).

3) Extra info on conditional marking

-Irrealis time clauses and conditional ones contain the conditional auxiliary **ká** or one of its allomorphs. Low probability conditionals are introduced by the subordinator **ná**. Another way to construe such conditionals is by means of the conditional auxiliary **ká** combined with the semantically empty modal verb **pyi** 'be', prefixed by the intransitive prefix **m-**. This complex is often written in one word (**kámpyí**), and its variant **ámpyí** is used as well. Concessive conditionals are marked with a distinct auxiliary **méé** (p570-80).

U **ahá** m-pá mìì sí ù bwòn
He **COND['if]** IP-come I FUT FT.him hit
"If/when he comes, I'll hit him." (p570-54a) HYP

U **ahá** m-pyí u à pa, mìì gú ù bwòn
He **COND['if']** IP-be he PERF come I POT him hit
"If he were to come, I would hit him." (p570-54b) HYP

Tibetan (Denwood 1999)

Complex:

Constr 1	*conditional subordinating particle –**na**. ('if')*
	-**past tense** marker referring to past time on the protasis verb
	-**future** tense markers referring to past time in the apodosis
Constr 2	*conditional subordinating particle –**na**. ('if')*
	-**past tense** marker referring to past time on the protasis verb
	-**perfect aspect** marker referring to past time in the apodosis
Constr 3	conditional subordinating particle –**na**. ('if')
	-**perfect aspect** marker referring to past time on the protasis verb
	-**future** tense markers referring to past time in the apodosis
Constr 4	*conditional subordinating particle –**na**. ('if')*
	-**perfect aspect** marker referring to past time on the protasis verb
	-**perfect aspect** marker referring to past time in the apodosis

khyed.rang. kha.lag. 'di. bzas.**pa.yin.na**.
you food this [eat.**PST**]-**LINK-AUX[PST]-SUBOR**
na.**gi.red**
be ill-**LINK-AUX**[**FUT**]
"If you ate this food, you would be ill." (p156) HYP
"If you had eaten this food, you would have been ill." CTF

khas.sa. khyed.rang.gis ngar lab.**na**. ngas. 'khyer.
yesterday you-SMP I-LOC tell-**SUBOR** I-SMP carry
yong.**ba.yod**
come-**LINK-AUX**[**FUT**]
"If you had told me yesterday, I would have brought it." (p156) CTF

sman. 'di. bzas.**pa.yin.na** gzugs.po. bde.po.
medicine this [eat.**PST**]-**LINK-AUX[PST]-SUBOR** body well-NOM
chags bsdad.**yog.red**
become stay-**AUX**[**PERF**]
"If I had taken this medicine, I would have got better" (p160) CTF

1) Notes on counterfactuality, tense and aspect marking

-In Tibetan tense and aspect are marked on the verb "partly by the distinction between past and present lexical verb stems where this exists and partly by particles at the linking and auxiliary positions" (p142).
-past: [lexical past stem + linking particle **-pa./-ba.** (+polar particle)+auxiliary **-yin./-red.** (+modal particle)] or [lexical past stem (+polar particle)+ auxiliary **byung./song.** (+modal particle)]
-present: lexical present stem +linking particle **-gi.** (+polar particle) + auxiliary **-yod./-'dug./-yog.red.** (+modal particle)
-future: [lexical present stem +linking particle **-gi.** (+polar particle) + auxiliary **-yin./-red.** (+modal particle)] or [lexical present stem +linking particle **-pa.** (+polar particle) + auxiliary **-yod./'dug.** (+modal particle)]
-Tibetan distinguishes between perfect, progressive and prospective aspect. The perfect aspect is expressed by the lexical past stem (+polar particle) + auxiliary **-yod./-'dug./ -yog.red./ -shag** (+modal particle) (p140-169)

2) Extra info on conditional marking

-Conditional clauses are signalled by the conditional subordinating particle **-na.** ('if') following the verb stem of the protasis, with or without linking particle and/or auxiliary. It may be combined with **gal.srid.**, together meaning 'in case, in the event that'. The following patterns are possible for hypothetical and possible conditional protases (P):
hypothetical:
[P: past tense referring to future time]
possible:
[P: past tense referring to past time]
[P: perfect aspect with past, present or future time]
[P: present tense referring to past, present or future time with progressive aspect]
[P: future tense referring to future time] (p222-223)

(only [P: past tense referring to past time] and [P: perfect aspect with past time] may be either counterfactual, or possible.)

kho. bod.la.   phyin.(**pa.yin.)na.**
3SG   Tibet-LOC   go.PST(-**LINK-AUX(PST))-SUBOR**
"If he went/were to go to Tibet, " (future time, hypothetical)
"If he went to Tibet," (past time, possible)
"If he had gone to Tibet," (past time, counterfactual) (p222)

khyed.rang. kha.lag. 'di. bzas.**pa.yin.na**.
you   food   this eat.PST-**LINK-AUX(PST)-SUBOR**
na.**gi.red**
be ill-**LINK-AUX(FUT)**
"If you ate this food, you would be ill." (p156) HYP
"If you had eaten this food, you would have been ill." CTF

Tiriyó (Meira 1999)

Complex:

Constr 1	-**tuuwë**: marker of posteriority in the protasis
(past)	-**i:** non-factual hypothetical marker on the verb of the apodosis (conjunction function)
	-**_mo:** irrealis particle in the apodosis
Constr 2	*conjunction* **ahtao** *('if, when')*
(present)	-**i:** non-factual hypothetical marker on the verb of the apodosis (conjunction function)
	-**_mo:** irrealis particle in the apodosis

same_ken   apëh-**tuuwë**   wïja, ameraarë_**mo** anota-**i**
fast_CONT   3: catch-**POST** 1:by, all_**IRR**   3S_O:fall-**HYP**
"If I had caught them fast, they would all have fallen."(p316-96b) CTF-past

takaemï_ke   tï-wë-**tuuwë**   irë,   irë_mao_pa_**mo**   ii-sika-**i**
kind.of.arrow_INSTR t-shoot-**POST** 3IN.ANA 3IN.ANA_TEMP_RPT _**IRR** 3AO-remove-**HYP**
 "If he had shot it with a takaemï arrow (a kind of harpoon), he would (have been able to) remove it then." (p454-10a) CTF-past

wei_wararë karaiwa   sen_po   **ahtao**,
day every   Brazilian 3INPX_LOC **if,**
anja i-waarë_**mo**   e**i**   karaiwa i-jomi
1+3 3-COGN_**IRR** 3SG:COP**HYP** Brazilian 3-language:POS
"If there were/had been Brazilians here every day, we would learn/have learnt the Brazilian language." (p316-96a) CTF-present/past

1) Notes on counterfactuality marking

-i: hypothetical suffix attached to the verb of the apodosis indicating hypotheses. It only occurs in counterfactual conditional apodoses, always together with **_mo**. As it is only used in counterfactual complex constructions, I assume it has a specifically counterfactual conjunction function.

-_mo: irrealis particle: second-position predicational particle occurring after the first constituent of an utterance. It also occurs with morphological imperatives to mark a 'future' imperative and with the Doubt form of the Future Imperfective, resulting in a counter-conditional ('unless') clause (thrice non-actuality) (p453-4).

-tuuwë: marker of posteriority attached to non-conjugated verb forms. It indicates that the event of the subclause is anterior to that of the main clause. The term is a bit misleading, because such markers are typically called anteriority markers (p337-39, 570-71).

2) Extra info on tense and aspect marking

-Tiriyo distinguishes between past, present and future tense and between imperfective and perfective aspect. These are marked on the verb by suffixes:

-past: **-(ja)kë(ne)** impf, **-ne** perf
-present: **-(ja)-e**, **-(ja)-(në)** impf, -**0** perf
-future: **-ta-e**, **-ta(ne)** impf, **-(ja)kë(mï)** perf

3) Extra info on conditional marking

-Conditional clauses are marked by the subordinator **ahtao**, expressing both time and possibility ('if' and 'when'). It occurs at the end of the subordinate clause and seems to be "an old copula nominalization (possibly the a-stem copula with a locative postposition like **_tao** or **_htao**)" (p565) (p565-67).

j-eemi	t-ënë-e	**ahtao**,	w-epanïï-ja-e;
1-daugher:POS	RM.PST-eat.meat-RM.PST	**if**,	1A-take.revenge-PRES.IMPF-CERT
j-eemi	t-arimika-e	**ahtao**,	in-epanïï- sewa _w-a-e
1-daugher:POS	RM.PST-raise-RM.PST	**if**,	3O-take.revenge-NEG_1S_A-COP-CERT

"If he ate my daughter, then I'm going to take revenge; (but) if he raised her, then I'm not going to take revenge." (p566-79e) HYP

Turkish (Kornfilt 1997)

Simple:

Constr 1 (past)	-(**y**)-**sA/-sA**: conditional marker (modal meaning)
	-**DI/-mIs:** simple past tense markers
Constr 2 (past)	-(**y**)**A:** optative marker
	-**DI/-mIs:** simple past tense markers
Constr 3 (past)	-**ol**: auxiliary marked for the **conditional mood** (**sA**) (modal meaning)
	-**DI/-mIs:** simple past tense markers
Constr 4 (present)	-**ol**: auxiliary marked for the **conditional mood** (**sA**) (modal meaning)

(bu kitab-I) oku-**sa-**y-**di**-n
this book-ACC read-**COND**-COP-**PST**-2SG
"Had you read (this book)" (p368-1270) CTF-past protasis
"If only you had read (this book)!" (p368-1270) CTF-past (wish) (S)

oku-**ya**-y-**di-**niz!
read-**OPT**-COP-**PST**-2PL
"You should have read!" (p372-1289) CTF-past (S)

güzel **ol-sa**-y-**di**-m
beautiful **be-COND**-COP-**PST**-1SG
"Had I been beautiful; if only I had been beautiful" (p369-1273) CTF-past (S) (wish)

güzel **ol-sa-**m
beautiful **be-COND**-1SG
"If I were beautiful; if only I were beautiful" (p369-1272) CTF-present

Complex:

Constr 1	*no conjunction equalling 'if'*
	-(**y**)-**sA/-sA**: conditional marker in both protasis and apodosis (modal meaning)
	-**DI/-mIs:** simple past tense markers in both protasis and apodosis
Constr 2	*no conjunction equalling 'if'*
	-(**y**)**A:** optative marker in both protasis and apodosis
	-**DI/-mIs:** simple past tense markers in both protasis and apodosis

oku-**ya-**y-**di-**m
read-**OPT**-COP-**PST**-1SG
"If I had read" (p372-1288) CTF-past protasis (C)

(bu kitab-I) oku-**sa-**y-**di**-n
this book-ACC read-**COND**-COP-**PST**-2SG
"Had you read (this book)" (p368-1270) CTF-past protasis

1) Notes on counterfactuality marking

-(y)-sA/-sA : suffixes coding the conditional, the former in its copular use, the latter in its use as a simple finite form when attached to the bare verbal stem. In the latter case, the conditional has two functions; it either expresses a remote condition or a wish. "When these formations are followed by the (definite) past suffix, we get a conditional past, which has two main functions as well": it either expresses an unfulfilled condition or a counterfactual wish referring to the past (p366-369). Since the conditional also occurs in simple sentences, I assume it has a modal meaning rather than a conjunction function.

- **DI/-mIs :** suffixes coding simple past tense (and perfective and perfect aspect) (p337-339).
- **ol:** auxiliary verb meaning 'be' which is used in copular constructions (p368).
-(y)A : optative suffix attached to the bare verbal stem designating a wish (p371-373).

Kornfilt does not give an example of a complex counterfactual construction. He only gives the protasis. I assumed that the apodoses are formed in the same way as the simple past counterfactuals.

2) Extra info on tense and aspect marking

-In Turkish tense is marked on the verb. "Most tense markers also have aspectual functions [and] some also function as mood markers" (p336). Turkish distinguishes between the present ("aorist"), past and future tense: present (**-(A)r**), past: definite past (**-DI**), reported past (**-mIs**) and future (**(y)AcAK**). The conditional is the only mood marker that is able to follow tense (/aspect) markers, then functioning as a copular conditional (p336-344).

-Aspect is marked on the verb as well. The past tense markers also function as perfect and perfective aspect markers. Further Turkish has a habitual, progressive and simultaneous aspect marker (p348-363).

3) Extra info on conditional marking

-Conditionals have their verb in the conditional mood and are not introduced by a conjunction. "The copular form is used as a regular conditional. This suffix can follow all of the simple tense/aspect suffixes as well as their permissible combinations" (p367). When attached to the bare stem directly, it has two functions: remote condition or wish (p366-367).

-Another conditional construction involves a nominalized subordinate clause that is the complement of a postposition. Two main nominalization strategies, namely suffixing the verb with **-DIK** (the factive nominal) or **-mA** (the action nominal) are found. The conditional postposition is **takdir-de** (p66-74).

Hasan [kitab-i   san-a   ver-ir-**se**-m]   cok
Hasan book-ACC you-DAT give-AOR-**COND**-1SG   very
kiz-acak
angry-[FUT]
"Hasan will get very angry if I give you the book." (p74-304) HYP

Hasan [[kitab-i   san-a   ver-**dig**-im]   **takdir-de**]
Hasan   book-ACC you-DAT give-[**FACT**].**NOML**-1SG   **case-LOC**
cok   kiz-acak
very angry-[FUT]
"Hasan will get very angry if (in case) I give you the book." (p74-303) HYP

Vai (Welmers 1976)

Complex (past & present):

Conjunction **hìí** (*'if'*)
-**wí**: temporal adverbial referring to prior action in the protasis, following the verb, copula or identifier
-**future tense** marker in the apodosis

hìí í ti'à **wì** nɛ̂ɛ, n nyòmó **wé'è** fàá**'à**
"If you had been here, my brother would not have died." (p107) CTF (past)

hìí à má tí **wì** sò ké-nà, mûì kúndà táá**'à** jí fè má-nà
[**if**]　　　　[**ANT**]　　　　[**CM:FUT**]　[**FUT**] (my glosses)
"If he hadn't been here, we could have gone fishing." (p107) CTF (past)

hìí à bè **wì** sò ké-nà wó'é, **mbè** kúndà à ké'é**'à**
[**if**]　　　[**ANT**]　　　　　　[**CM:FUT**.1SG]　　[**FUT**] (my glosses)
"If he were working today, I could call him." (p107) CTF (present)

1) Notes on counterfactuality marking

-**wí**: temporal adverbial referring to prior action. If the condition refers to the present or past, it occurs after the verb, copula or identifier. If the condition refers to the future, **wí** immediately follows the conjunction **hìí**. Its position thus distinguishes between past and present counterfactuals on the one hand and hypothetical conditions on the other hand (p106-7, 135).
-**future tense** is marked by the construction marker -**ì** after the subject and suffix -**'à** attached to the verb stem. In the negative future, the subject is followed by the construction marker **wé'è** (p84-85).

there is no formal distinction between past and present counterfactuals

2) Extra info on tense, aspect and mood marking

-In Vai tense and aspect are expressed by construction markers following the subject and suffixes attached to the verb stem. It distinguishes between the situational (comparable to simple past (for intransitive verbs only)), the stative, the imperative, the future, the present, the completive (comparable to perfect aspect (for intransitive verbs only)), the incompletive (referring to costumary action) and the conditional (only occurring in hypothetical protases) (p79-96).

3) Extra info on conditional marking

-Vai has three ways to construe a conditional. A first way is to add the conditional construction marker **'à** after the subject and to attach the conditional suffix –**'éè** to the protasis verb stem. When the protasis is negative, the construction marker is **má**. A second way can only be applied to affirmative conditionals and involves the addition of the construction marker **kónì** and the replacement of the stem tone by a low tone. A final way to construe a conditional is by means of the conjunction **hìí** introducing the protasis (p85-106).

Kó'áa **'à** dhógbò**'éè**, í ì lèn táa mâì
"If the clothes get wet, hang them near the fire." (p87) HYP (aff)

í **má** n fé'é**'éè** núú, í má n kònò
"If you don't see me there, don't wait for me." (p88) HYP (neg)

í **kónì** tò nî̃ê, í ì fò njè
"If you stay here, tell me." (p88) HYP (aff)

hìí à táá'à núú, à wé'è jè'é'à
"If he goes there, he won't come back." (p105) HYP (aff)

hìí wì î̃ táá'à jòndú, **î̃** n fa fé'é**'à**
"If you should go to Jòndú, you would meet my father." (p107) HYP

Vietnamese (Dinh-Hoà 1997)

Complex:

*-**nêu** alternates with **giá** and **(nêu) mà** to introduce a conditional protasis ('if')*
*-**thì** introduces a conditional apodosis ('then')*
-**dã:** marker of anteriority in the apodosis
-**se**: future tense marker in the apodosis

Nêu có tiên,   **thì** chúng tôi   **dã   se**   mua cái   nhà   ây.
if   have money **then** we   EXCL **ANT FUT** buy CL   house that
"If we had had money, we would have bought that house." [But we don't have money.] (p248-31)
CTF

   1)   Notes on counterfactuality marking

-nêu, giá, (nêu) mà: connectives introducing hypothetical or counterfactual conditional clauses
-**thì:** connective introducing a conditional apodosis
-**dã:** tense adverb functioning as a determiner that precedes the verb, hence called "preverb", coding anteriority (p186, 246-248).
-se: tense adverb functioning as a determiner that precedes the verb, hence called "preverb", coding future tense (p186, 246-248).

   2)   Extra info on tense and aspect marking

-In Vietnamese tense and aspect are marked by adverbs that precede the verb ("preverbs"): **dã** (anteriority), **se** (future), **sap** (immediate future), **vùa mói** (recent past) and **dang** (progressive aspect ('in the process of')). The relative order of these preverbs is fixed (p185-188).

   3)   Extra info on conditional marking

-Conditional clauses are introduced by the connectives **mà** or **nêu.** They may also occur together. **Giá** ('if, by any chance') seems to be reserved for counterfactual conditionals.
-The hypothetical apodosis is optionally introduced by **thì.** Maybe the connective is optional in counterfactual apodoses as well. The apodoses are usually marked for future tense (p245-248).

Nêu mà Pháp   thi-hành dao luât ây **thì**   dân-chúng se   phan-dôi liên.
if   if   France carry out CL law that **then** people   FUT oppose   immediately
"If France implements that law, the people will immediately protest." (p247-27) HYP

Nêu có tiên,   chúng tôi   se   mua cái nhà   ây.
if   have money we   EXCL FUT buy CL   house that
"If we have/had money, we will/would buy that house." (p248-30) HYP

Wardaman (Merlan 1994)

Simple:

-**irrealis** prefix attached to the verb
-**past tense** marker: **rri** alternates with **–ndi**

yi-nga-jejbarla-**rri**   wu-munburra-wu
IRR-1SG/3SG-ask-**PST**   WU-money-DAT
"I should have asked him for money." (p188-430) CTF-past (S)

Complex:

Constr 1	*Conjunction **bujun** ('if')*
(past)	-**irrealis** prefixes attached to both the verbs of the protasis and the apodosis (modal meaning)
	-**past tense** marker: **rri** alternates with **–ndi** in both the verbs of the protasis and the apodosis
Constr 2	*Conjunction **bujun** ('if')*
(present)	-**irrealis** prefixes attached to both the verbs of the protasis and the apodosis (modal meaning)
	-**n/-0**: present tense marker on both the verbs of the protasis and the apodosis

bujun yayi-0-jingi-**ndi**   gonjon   wu-boban
if   **IRR**-3SG-be-**PST**   ground-ABS   WU-dry-ABS
yingarr-yan**ggi**-wan   ngala wonggo yi-ngarr-ya
IRR-1INPL-go-**PST**-DF   but   NEG   IRR-1INPL-go-PRES
"If the ground had been dry we would have gone, but we can't go." (p188-429) CTF-past (C)

yi-meleman   **bujun** yinyang   milygbilyg-ba **yi**-ni-jingi-**n**
YI-black-ABS **if**   2SG-ABS   beat-PS   **IRR**-2SG-AUX-**PRES**
gunga   mejern yi-ngawuju-wu   wagayma ngayugu
3SG-DAT belly   YI-grandchild-DAT   like   1SG-ABS
nga-jingi̵-n   gunga
1SG-COP-PRES 3SG-DAT
"If you were black, your heart would beat for your grandchild as mine is doing for him." (p294-719)
CTF-present (C)

1) Notes on counterfactuality marking

-**irrealis** prefixes differ in accordance with the subject prefixes, the former immediately preceding the latter (p133-35). Irrealis mood marking co-occurs with present and past tense suffixation, and also with zero-stem forms (p184). Past irrealis forms express past counterfactual meanings. Combined with a present tense marker, the irrealis expresses present counterfactuality. "With present suffixation and negative particle, irrealis forms express meanings including prohibition and constraint" (p184). The different prefixes are:

yi-: non-third subject person
ya-: 1EX NSG
yayi-: third person subject
nunu-/yunu-: 2NSG
-rri and **-ndi** are past tense suffixes (allomorphs in complementary distribution (p177)) and are attached to the verb root.
-**n/-0** are present tense suffixes (allomorphs in complementary distribution) and are attached to the verb root. "The present is used to designate predicate meanings in non-past time, but not necessarily confined to the moment of the speech event" (p176-77).

Some verbs have the future stem for both future tense forms and irrealis zero-suffix forms (p180).

2) Extra info on tense and aspect marking

-In Wardaman tense is marked on the verb by suffixes (p175-181):-**rri/-ndi** (past tense), -**n/-0** (present tense) and -**we/-wa** (future tense)
-Aspect is marked on the verb by verbal prefixes (habitual: **ma-**) and suffixes (iterative: **-marla**). I did not find any marking of perfective or imperfective aspect (189-93).

3) Extra info on conditional marking

-Conditional subclauses are introduced by the clausal particle **bujun**, which may also occur in simple "admonitative" clauses expressing that something undesirable may happen ('maybe') (p185). It may also have the meaning of "lest" "where the anticipated outcome is usually unwelcome or negative in some way" (p293). In non-past conditionals, future tense is the preferred form of the protasis verb. The apodosis verb is usually marked for potential (suffix –yan) (p293-95).

bujun ya-0-jingi-we   yi-gelen   ya-0-ngegba   warlad
if   3-3SG-be-FUT   YI-cold-ABS   3-3SG-AUX-PRES   sick
"If he's cold, he's sick." (p294-721) HYP

West Greenlandic (Fortescue 1984)

Complex:

Constr 1 (past)	-**gu-**: conditional mood marker on the verb of the protasis (conjunction function)
	-**riir(sima)**: perfective aspect marker in the protasis
	-**qqajaqi**: affix on the verb of the apodosis coding counterfactuality
Constr 2 (present)	-**gu-**: conditional mood marker on the verb of the protasis (conjunction function)
	-**galuar**: modal affix on the verb of the protasis
	-**ssagaluar**: affix on the verb of the apodosis coding hypotheticality
	-**ssar**: future tense affix on the apodosis verb

danskit uqaasi-I-nik   ilikka-laa-**riirsima**-su-u-**gutta**
Danes   language-their-INSTR have.learnt-a bit-**already**-INTR-PART-be-1PL.**COND['if]**
ilikka-lirtur-niru-**qqajaqi**-agut
have.learnt-fast-more-**would**-1PL.INDIC
"If we had (only) learnt a bit of Danish already, we would have learnt faster." (p66) CTF-past

Nuum-mi   najugaqa-nngik-**kalua-ruma**   sulia-**ssar**-si-sinnaa-**ssagaluar**-punga
Nuuk-LOC live-not-[**MODAL**]-1SG.**COND['if]**   work-**FUT**-get-can-**would**-1SG.INDIC
"If I did not live in Nuuk, I would be able to find work." (p66) CTF-present

1) Notes on counterfactuality marking

-gu-: conditional suffix followed by subject markers (intransitive verbs) or fused subject-object markers (transitive verbs). Since it only occurs in conditional protases, I assume it has a conjunction function rather than a modal meaning (p290).

-**galuar:** affix indicating "the presupposition (usually unspoken) that the state or action of the verb base does not pertain exactly or was not completed, or [expressing] some other reservation on the speaker's part" (p296).

-**ssagaluar:** affix coding even more remote hypotheticality and counterfactuality (p66)

-**qqajaqi:** affix coding counterfactuality (p66)

-**riir(sima)**: affix indicating an action completed prior to some reference point (p278)

-**ssar**: future tense affix on the apodosis verb

2) Extra info on tense and aspect marking

-In West Greenlandic tense and aspect are marked on the verb. "The only indisputable tense markers are for the future" (**ssa, niar, jumaar**) (p271). The past tense markers almost always have an element of aspect (or mood) and "it may be a fairly recent development whereby they have come to be used (optionally) to indicate time relative to the present communicative situation" (p272): **sima** and its colloquial equivalent **nikuu** indicate simple past tense**,** present perfect tense, pluperfect tense and perfect(ive) aspect.

-Other aspects coded in West Greenlandic are imperfective, habitual, continuous, progressive, ingressive, terminative and iterative aspect (p271-287).

3) Extra info on conditional marking

-Conditionals clauses are not introduced by a conjunction, but the auxiliary of the protasis is marked for the conditional mood by the suffix **-gu.** Context and derivational affixes distinguish this from its temporal function ('time when' in the relative future). **Ssa** or another affix of futurity may occur on the verb of the apodosis (p66-67).

Pakasa-anna-**rukku**   pissanganaer-niru-vuq
Surprise-just-2SG.2SG.**COND['if]**   be exciting-more-3SG.INDIC
"If you just surprise him it will be more exciting." (p66) HYP

ilin-nut   taku-tik-**kukku**   tupigutsa-**ssagaluar**-putit
thou-ALL see-cause-1SG.2SG.**COND['if]** be surprised-**would**-2SG.INDIC
"If I showed it to you, you would be surprised." (p66) HYP

References

Asher, R. E. & T.C. Kumari. 1997. *Malayalam*. London: Routledge.

Atlas, D.J. & S.C. Levinson. 1981. *It*-clefts, informativeness, and logical form. In P. Cole, ed. *Radical Pragmatics*. New York: Academic Press. 1-61.

Athanasiadou, A. & R. Dirven. 1997. Conditionality, hypotheticality, counterfactuality. In Angeliki Athanasiadou & René Dirven, eds. *On Conditionals again*. Amsterdam: Benjamins. 61-96.

Bell, A. 1978. Language Samples. In J.H. Greenberg (ed.) *Universals of human language*. Stanford: Stanford University Press.

Berger, H. 1998. *Die Burushaski-Sprache von Hunza und Nager.* Neuindische Studien. Wiesbaden: Harrassowitz.

Blackings, M. & N. Fabb. 2003. *A grammar of Ma'di.* Mouton grammar libary. Berlin: Mouton de Gruyter.

Bugenhagen, R.D. 1993. The semantics of irrealis in Austronesian languages of Papua New Guinea. A cross-linguistic study. In G. Reesink, ed. *Topics in Descriptive Austronesian Linguistics* (Semaian 11.) Leiden : Vakgroep Talen en Culturen van Zuidoost-Azië en Oceanië, Rijksuniversiteit te Leiden. 1-39.

Bugenhagen, R.D. 1995. *A grammar of Mangap-Mbula: an Austronesian language of Papua New Guinea*. Canberra: Australian National University, Department of Linguistics.

Bybee, J., R. Perkins & W. Pagliuca. 1992. Mood and Modality, chapter 7 of *The Grammaticalization of Tense, Aspect and Modality in languages of the World* (ms).

Bybee, J., R. Perkins & W. Pagliuca. 1994. *The Evolution of Grammar. Tense, Aspect and Modality in the Languages of the World*. Chicago: University of Chicago Press.

Bybee, J. & S. Fleischman, eds. 1995. *Modality in Grammar and Discourse*. Amsterdam: Benjamins.

Campbell, L. 1985. *The Pipil language of El Salvador*. Mouton grammar library. Berlin: Mouton de Gruyter.

Carlson, R. 1994. *A grammar of Supyire*. Mouton grammar library. Berlin: Mouton de Gruyter.

Chang, S.J. 1996. *Korean*. London Oriental and African language library. Amsterdam: Benjamins.

Cole, P. 1982. *Imbabura Quechua*. Lingua Descriptive Studies. Amsterdam: North Holland.

Comrie, B. 1985. *Tense*. Cambridge: Cambridge University Press.

Comrie, B. 1986. Conditionals: a typology. In E.C. Traugott, A. ter Meulen, R. J. Snitzer & C.A. Ferguson, eds. *On Conditionals*. Cambridge: Cambridge University Press.

Comrie, B. 1978. *Aspect*. Cambridge: Cambridge University Press.

Dahl, Ö. 1985. *Tense and aspect systems.* Oxford: Blackwell.

Dahl, Ö. 1997. The relation between past time reference and counterfactuality: A new look. In Angeliki Athanasiadou & René Dirven, eds. *On Conditionals again*. Amsterdam: Benjamins. 97-114.

Davidson, M. 2002. *Studies in Southern Wakashan (Nootkan) Grammar*. PhD Dissertation: University of New York at Buffalo.

Declerck, R. & S. Reed. 2001. Conditionals: a comprehensive empirical analysis. Berlin: Mouton de Gruyter.

Dench, A. 1995. *Martuthunira: A Language of the Pilbara Region of Western Australia*. Canberra: Pacific Linguistics.

Denwood, P. 1999. *Tibetan*. Amsterdam: Benjamins.

Dinh-Hoà, N. 1997. *Vietnamese = Tiêng Viêt Không Son Phân*. Amsterdam: Benjamins.

Dunn, M.J. 1999. *A grammar of Chukchi*. Canberra: Australian National University.

Elliott, J. 2000. Realis and irrealis: Forms and concepts of the grammaticalization of reality. *Linguistic Typology* 4: 55-90.

Givón, T. 1994. Irrealis and the subjunctive. *Studies in Language* 18: 265-337.

Grimes, B.F. 2000. *Ethnologue: Languages of the world.* Dallas: Summer Institute of Linguistics.

Fleischman, S. 1989. Temporal distance: A basic linguistic metaphor. *Studies in Language* 13: 1-50.

Fleischman, S. 1995. Imperfective and Irrealis. In Bybee, J. & S. Fleischman, eds. 1995. *Modality in Grammar and Discourse*. Amsterdam: Benjamins. 519-551.

Fortescue; M. 1984. *West Greenlandic*. London: Croom Helm.

Frajzyngier, Z. 2002. *A grammar of Hdi*. Mouton grammar library. Berlin: Mouton de Gruyter.

Frank, P. 1990. *Ika syntax*. Studies in the languages of Colombia. Dallas: Summer Institute of Linguisitcs.

Galucio, A.V. 2001. *The morphosyntax of Mekens (Tupi)*. Chicago: University of Chicago.

Grice, H.P. 1975. Logic and Conversation. In P. Cole & J. Morgan, eds. *Speech Acts (Syntax and Semantics Vol. 3)*. New York: Academic Press. 41-58.

Haeseryn, W., K. Romijn, G. Geerts, J. De Booij & M.C. van den Toorn. 1997. *Algemeen Nederlandse Spraakkunst*. Groningen: Martinus Nijhoff Uitgevers.

Hagman, R.S. 1973. *Nama Hottentot grammar*. New York: Columbia University.

Haiman, J. 1980. *Hua: a Papuan language of the Eastern Highlands of New Guinea*. Studies in language companion series. Amsterdam: Benjamins.

Haiman & Kuteva. 2002. The Symmetry of Counterfactuals; Essays in Honor of Sandra A. Thompson. In Joan Bybee & Michael Noonan, eds. *Complex Sentences in Grammar and Discourse*. Amsterdam: Benjamins. 101-124.

Harriehausen, B. 1990. *Hmong Njua: syntaktische Analyse einer gesprochenen Sprache mithilfe datenverarbeitungstechnischer Mittel und sprachvergleichende Beschreibung des südostasiatischen Sprachraumes*. Linguistische Arbeiten. Tübingen: Niemeyer.

Haspelmath, M. 2003. *A grammar of Lezgian*. Mouton grammar library. Berlin: Mouton de Gruyter.

Hewitt, B.G. 1995. *Georgian: a structural reference grammar*. London Oriental and African language library. Amsterdam: Benjamins.

Hopper, P.J. 1981. Aspect and Foregrounding in Discourse. In T. Givón, ed. *Discourse and Syntax (=Syntax and Semantics*, 12). New York: Academic Press. 213-41.

Horn, L. 1972. *On the Semantic Properties of the Logical Operators in English*. Los Angeles: University of California dissertation.

Horn, L. 1984. Towards a new taxonomy for pragmatic inference: Q-based and R-based implicature. In D. Schriffin, ed. *Meaning, Form and Use in Context: Linguistic Applications* (GURT '84). Washington DC: Georgetown University Press. 11-42.

Horn, L. 1996. Presupposition and Impicature. In S. Lappin, ed. *The Handbook of Contemporary Semantic Theory*. Oxford: Blackwell. 299-319.

Hualde, J.I. & J. Ortiz de Urbina. 2003. *A grammar of Basque*. Berlin: Mouton de Gruyter.

Iatridou, S. 2000. The grammatical ingredients of counterfactuality. *Linguistic Inquiry* 31: 231-270.

James, D. 1982. Past tense and the hypothetical: A cross-linguistic study. *Studies in Language* 6: 375-403.

Karttunen, L. & S. Peters. 1977. Requiem for presupposition. In Kenneth Whistler et al., eds. *Proceedings of the Third Annual Meeting of the Berkeley Linguistics Society.* 360-371.

Kimball, G.D. 1991. *Koasati grammar*. Studies in the anthropology of North American Indians. Lincoln: University of Nebraska Press.

Kornfilt. J. 1997. *Turkish*. London: Routledge.

Kuteva, T. 1998. On identifying an evasive gram: Action narrowly averted. *Studies in Language* 22: 113-160.

Lakoff, G. 1970. Linguistics and Natural Logic. In D. Davidson & G. Harman, eds. *Semantics of Natural Language*. Dordrecht: D. Reidel.

Langacker, R.W. 1978. The form and meaning of the English auxiliary. *Language* 54: 853-882.

Lefebvre, C. 2002. *A grammar of Fongbe*. Mouton grammar library. Berlin: Mouton de Gruyter.

Leirbukt, O. 1991. Nächstes Jahr wäre er 200 Jahre alt geworden: Über den Konjunktiv Plusquamperfekt in hypothetischen Bedingungsgefügen mit Zukunftsbezug. *Zeitschrift für germanistische Linguistik*. 19: 158-193.

Levinson, S.C. 1983. *Pragmatics*. Cambridge: Cambridge University Press.

Levinson, S.C. 1995. Three levels of meaning. In F.R. Palmer, ed. *Grammar and Meaning: Esseys in Honor of Sir John Lyons*. Cambridge: Cambridge University Press. 90-115.

Lewis, D.K. 1973. *Counterfactuals*. Cambridge: Harvard University Press.

Lorenzino, G.A. 1998. *The Angolar Creole Portuguese of São Tomé: its grammar and sociolinguistic history*. München: LINCOM Europa.

Lyons, J. 1977. *Semantics. Volume 2*. Cambridge: Cambridge University Press.

Matthews, S. & V. Yip. 1994. *Cantonese: a comprehensive grammar.* Routledge Grammars. London: Routledge.

MacDonald, L. 1990. *A grammar of Tauya*. Mouton grammar library. Berlin: Mouton de Gruyter.

Maslova, E. 2003. *A grammar of Kolyma Yukaghir*. Mouton grammar library. Berlin: Mouton de Gruyter.

McGregor, W.B. 1990. *A functional grammar of Gooniyandi.* Studies in language companion series. Amsterdam: Benjamins.

McKay, G. 1975. *Rembarrngna*. A Language of Central Arnhem Land. PhD Dissertation, ANU.

Meira, S. 1999. *A grammar of Tiriyó*. Houston: Rice University Press.

Merlan, F.C. 1994. *A grammar of Wardaman: a language of the Northern territory of Australia*. Mouton grammar library. Berlin: Mouton de Gruyter.

Mithun, M. 1995. On the relativity of irreality. In J. Bybee & S. Fleischman, eds. *Modality in Grammar and Discourse*. Amsterdam: Benjamins. 367-388.

Noonan, M.P. 1981. *Lango syntax*. Los Angeles: University of California.

Noonan, M.P. 1992. *A grammar of Lango*. Mouton grammar library. Berlin: Mouton de Gruyter.

Palmer, F.R. 1986. *Mood and Modality.* Cambridge: Cambridge University Press.

Palmer, F.R. 2001 (2nd ed). *Mood and Modality.* Cambridge: Cambridge University Press.

Perkins, R.D. 1989. Statistical techniques for determining language sample size. *Studies in Language* 13: 293-315.

Quirk, R., S. Greenbaum, G. Leech & D. Crystal. 1985. *A comprehensive grammar of the English language*. London: Longman.

Reesink, G.P. *A grammar of Hatam: Bird's Head Peninsula, Irian Jaya*. Canberra: Pacific linguistics.

Rice, K. 1989. *A grammar of Slave.* Mouton grammar library. Berlin: Mouton de Gruyter.

Rijkhoff, J., D. Bakker, K. Hengeveld & P. Kahrel. 1993. A method of language sampling. *Studies in Language* 17: 169-203.

Rijkhoff, J. & D. Bakker. 1998. Language sampling. *Linguistic Typology* 2-3, 263-314.

Rijkhoff, J. 2002. *The Noun Phrase*. Oxford: University Press.

Roberts, J.R. 1997. *Amele*. London: Croom Helm.

Ruhlen, M. 1987. *A guide to the world's languages. Vol. 1: Classification*. London: Edward Arnold.

Ruhlen, M. 1991. *A guide to the world's languages. Vol. 1: Classification (with a postscript on recent developments)*. London: Edward Arnold.

Saeed, J. 1999. *Somali*. Amsterdam: Benjamins.

Saltarelli, M. 1988. *Basque*. Croom Helm Descriptive Grammars. London: Routledge.

Song, J J. 2000. *Linguistic Typology: morphology and syntax*. Longman.

Schultze-Berndt, E. 2000. *Simple and Complex Verbs in Jaminjung: A Study of Event Categorization in an Australian Language* (MPI Series in Psycholinguistics 14). Nijmegen: MPI.

Steele, S. 1975. Past and irrealis: just what does it all mean? *International Journal of American Linguistics* 41:3. 200-217.

Strawson, P.F. 1952. *Introduction to Logical Theory*. London: Methuen.

Strawson, P.F.1950. On referring. *Mind* 59: 320-44**.**

Tauberschmidt, G. & H. Tauberschmidt. 1990. *Sinaugoro grammar essentials*. [N.p.:n.n.].

Tedeschi, P. 1981. Some Evidence for a Branching-Futures Semantic Model. In P. Tedeschi & A. Zaenen, eds. *Syntax and semantics 14: Tense and Aspect*. New York: Academic Press. 239-270.

Terrill, A. 2003. *A grammar of Lavukaleve.* Mouton grammar library. Berlin: Mouton de Gruyter.

Van den Berg, R. 1989. *A grammar of the Muna language*. Dordrecht: Foris.

Van der Auwera, J. & V. Plungian. 1998. Modality's semantic map. *Linguistic Typology* 2: 79-124.

Verstraete, J.-C. 2003. *Course notes on mood, modality and related categories*. Honours Seminar: University of Melbourne.

Verstraete, J.-C. 2004. *The Semantics and pragmatics of composite mood marking: The non-Pama-Nyungan languages of northern Australia*. Preprint Departement Linguïstiek, University of Leuven.

Verstraete, J.-C. forthcoming. The nature of irreality in the past domain: Evidence from past intentional constructions in Australian languages. To appear in *Australian Journal of Linguistics.*

Wali, K. & O.M. Koul. 1997. *Kashmiri: a cognitive-descriptive grammar*. Descriptive grammars. London: Routledge.

Whaley, L.J. 1997. *Introduction to the typology. The unity and diversity of language.* Thousand Oaks: Sage Publications.

Welmers, W.E. 1976. *A grammar of Vai*. Berkeley: University of California press Berkeley.

Wierzbicka, A. 1988. *The semantics of grammar*. Amsterdam, Philadelphia: Benjamins. Studies in Language Companion 18.

Wierzbicka, A. 1997. Conditionals and Counterfactuals: conceptual primitives and linguistic universals. In Angeliki Athanasiadou & René Dirven, eds. *On Conditionals again*. Amsterdam: Benjamins. 15-59.

Wierzbicka, A. 1991. *Cross-cultural pragmatics. The semantics of human interaction*. Berlin: Mouton de Gruyter. Trends in Linguistics. Studies and Monographs 53.

Yaohong, L. 1998. *The Dong language of Guizhou province, China*. Publications in linguistics and related fields. Arlington: Summer Institute of Linguisitcs.

Ziegeler, D. 1995. Diachronic factors in the grammaticalization of counterfactual implicatures in Singaporean English. *Language Sciences* 17: 305-328.

Ziegeler, D. 2000a. The role of quantity implicatures in the grammaticalisation of *would*. *Language Sciences* 22: 27-61.

Ziegeler, D. 2000b. *Hypothetical modality. Grammaticalisation in an L2 Dialect*. Amsterdam: Benjamins.

Ziegeler, D. 2001. Past ability modality and the derivation of complementary inferences. *Journal of Historical Pragmatics* 2: 273-316.