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## **Aspect, mood, and time in Belhare: studies in the semantics- pragmatics interface of a Himalayan language**

B Bickel

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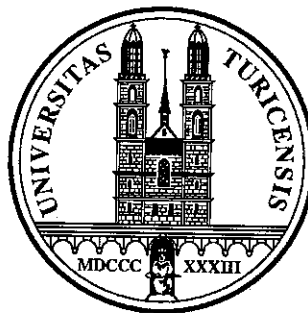
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**Balthasar Bickel**

**Aspect, Mood, and Time in Belhare**

**Studies in the Semantics – Pragmatics Interface**

**of a Himalayan Language**



**Universität Zürich 1996**

**B. Bickel: Aspect, Mood, and Time in Belhare**

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This thesis was accepted as a doctoral dissertation by the Faculty of Arts of the University of Zürich in the summer semester 1995 on the recommendation of Professor Dr. Karen H. Ebert.

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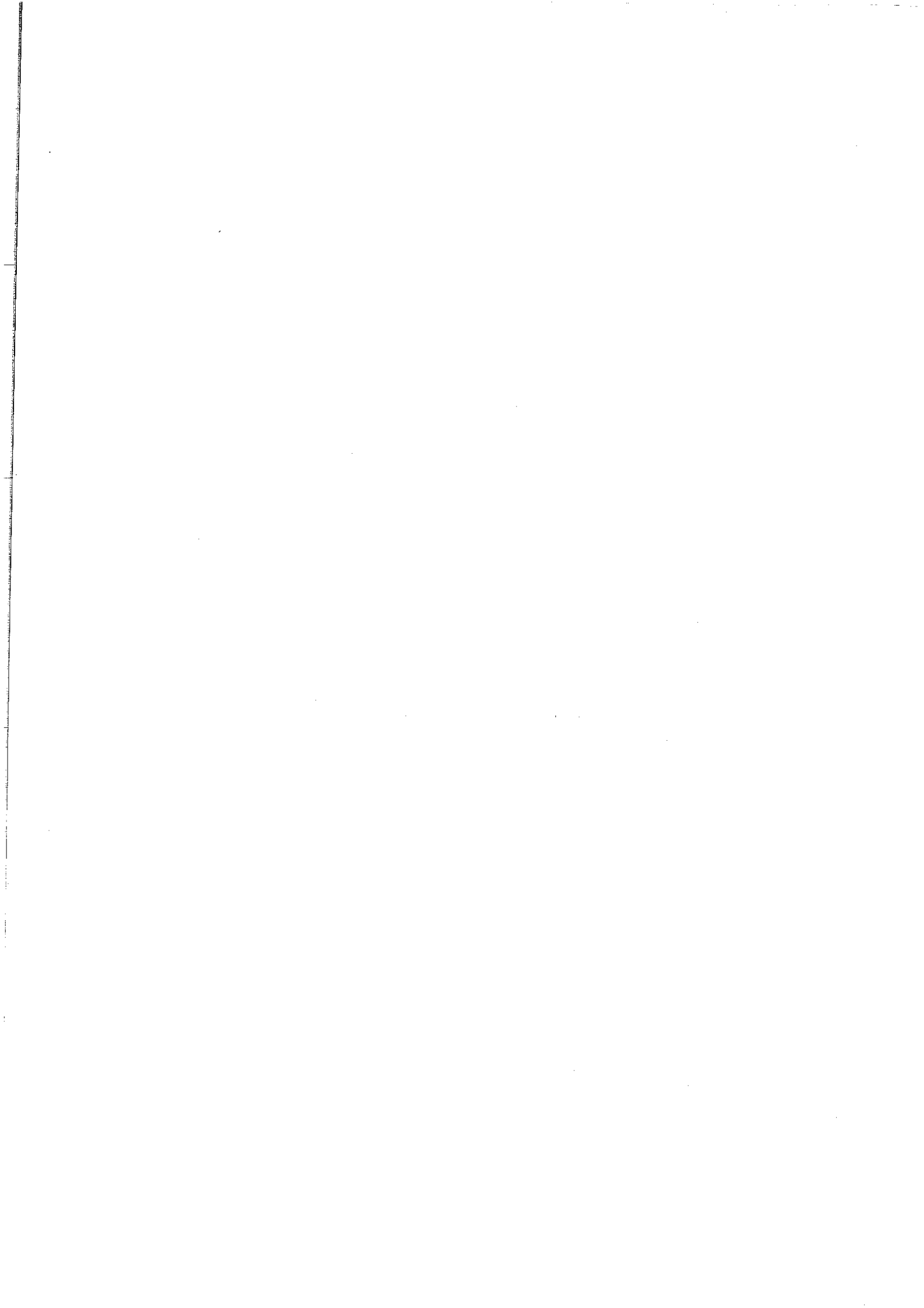
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In Erinnerung an meinen Vater

Hans Bickel

1925 – 1996



# Table of Contents

Preface.....	5
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## Part I: Preliminaries

<b>1. Introduction</b> .....	<b>9</b>
1.1 Three descriptive puzzles.....	10
1.2 Semantics, pragmatics, and the theory of Horn-scales .....	11
1.3 Aspect and Aktionsart.....	16
1.4 Belhare: the language and its speakers.....	21
1.5 Some characteristics of Belhare grammar .....	23
1.6 Preview of the analysis and structure of the book.....	25
<b>2. Aspect definitions across languages</b> .....	<b>31</b>
2.1 The English aspect problem.....	32
2.2 States and perfectives .....	37
2.3 Horn-scale computations and the pragmatics of states.....	42
2.4 The denotative function (obščefaktičeskoe značenie) .....	47
<b>3. Verb morphology and phonological alternations</b> .....	<b>51</b>
3.1 Overview of verb morphology.....	51
3.2 Preliminaries: phonemes and distinctive features.....	54
3.3 Words and prosodic structure.....	56
3.4 Cyclic phonology.....	60
3.5 Prosodic alignment: gemination .....	65
3.6 More prosodic alignment: augment distribution .....	69
3.7 Diphthong stem forms .....	73
3.8 Suffix alternations.....	75

## Part II: Morpheme Semantics and Pragmatics

<b>4. Mood and temporal reference</b> .....	<b>83</b>
4.1 The 'past' vs. 'non-past' opposition: mood or tense? .....	84
4.2 Indicative vs. subjunctive .....	91
4.3 Time reference and the definitive marker .....	103

<b>5. Imperfective vs. temporary aspect and the pragmatics of time.....</b>	<b>107</b>
5.1 The semantics of the imperfective .....	108
5.2 The semantics of the temporary aspect.....	113
5.3 The pragmatics of time and irony.....	122
<b>6. Actuality, 'already' and the inceptive vs. temporary opposition.....</b>	<b>131</b>
6.1 Two possible analyses.....	133
6.2 The semantics of the inceptive and its pragmatic repercussions .....	135
<b>7. The simple form and situation types .....</b>	<b>141</b>
7.1 The simple form in perfective function .....	141
7.2 Defeasability and the pragmatics of events and states.....	149
7.3 Iteration, habituality, and distribution.....	157
<b>8. The spatially distributed temporary aspect.....</b>	<b>163</b>
<b>9. Between perfect and resultative.....</b>	<b>169</b>
9.1 The forms .....	170
9.2 The perfect: current relevance of a past event .....	173
9.3 The two temporal layers of the r-perfect.....	177
9.4 Perfect and r-perfect in competition .....	184
<b>10. The inconsequential .....</b>	<b>189</b>

### **Part III: Aspect and Aktionsart**

<b>11. Aktionsarten effects and a theory of aspect representation.....</b>	<b>193</b>
11.1 Towards a selection theory of aspect.....	193
11.2 Aktionsart composition and the Aspectual Uniformity Hypothesis.....	202
<b>12. Aspect and Aktionsart in Belhare.....</b>	<b>207</b>
12.1 Overview of Belhare Aktionsarten.....	208
12.2 Boundaries.....	213
12.3 Ingressive-phasal Aktionsart vs. two-phase verbs.....	221
12.4 Transformations.....	228
12.5 Telicity vs. inchoativity .....	232
<b>13. On the logic and pragmatics of Aktionsarten.....</b>	<b>239</b>
13.1 Aktionsart delimitation by composition .....	239
13.2 Pragmatically induced Aktionsarten: phases and the inceptive .....	244
13.3 Iteration effects again.....	248

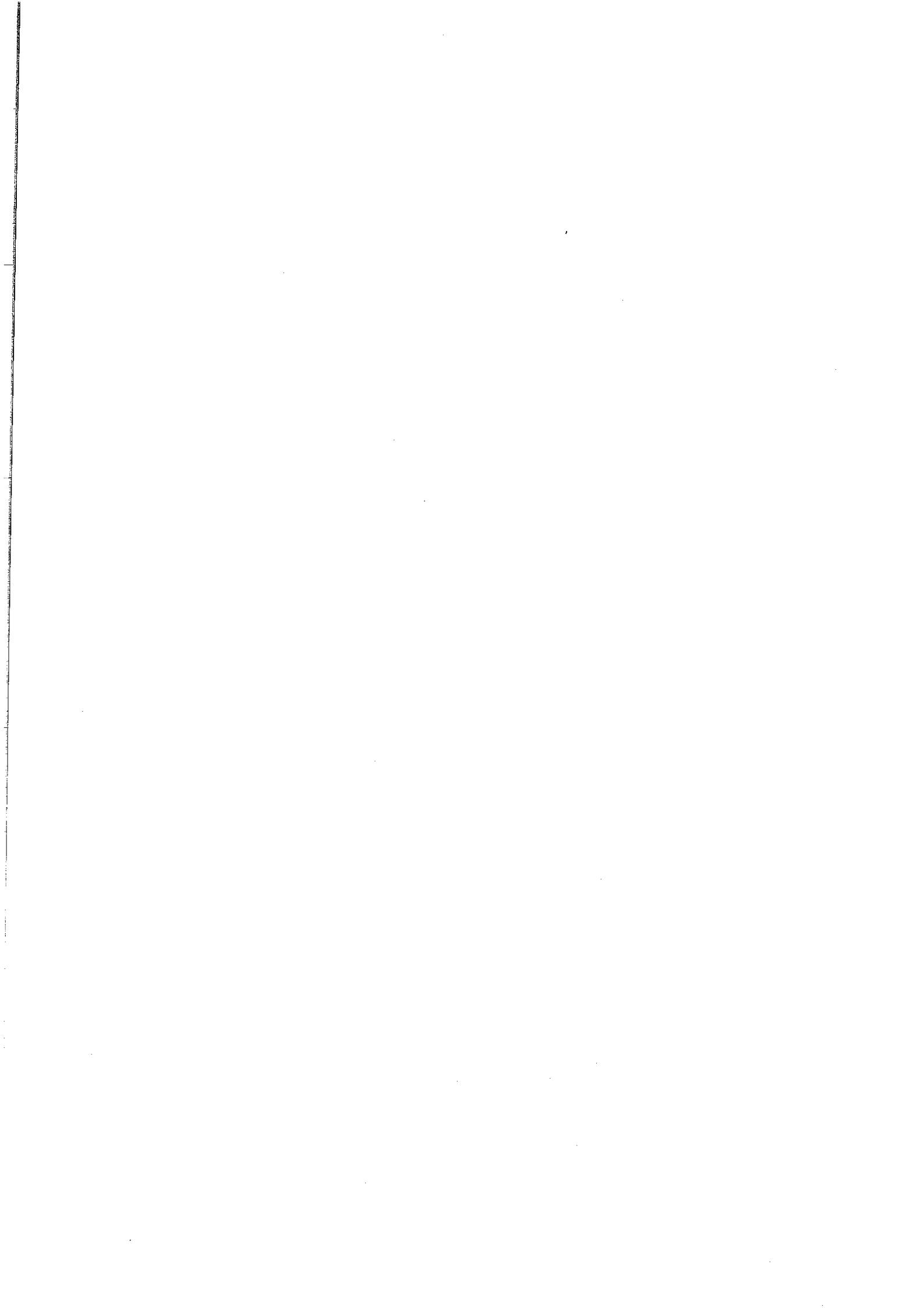


## Appendices

A: Verb inflection paradigms .....	255
B: Orthography, glosses, and abbreviations.....	271
C: Subject Index.....	275
D: References .....	277

## Tables and Figures

Table 1.1: Temporal Tier structures in comparison with alternative proposals .....	18
Table 1.2: Tense/mood semantics.....	25
Table 1.3: Aspect semantics .....	27
Table 3.1: Verbal affix slots .....	52
Table 3.2: Aspect and mood/tense morphology.....	53
Table 3.3: Belhare phoneme chart.....	54
Table 3.4: Distinctive feature analysis.....	55
Table 4.1: The mood/tense system in suffix slot sf2.....	83
Table 5.1: Distribution of cursive aspect morphemes over mood combinations.....	124
Table 9.1: The morphology of r-perfect and perfect.....	170
Table 11.1: Aspect semantics.....	194
Table 12.1: Formal definition of the marked aspect categories in Belhare.....	207
Table 12.2: Synopsis of Aktionsarten tests in Belhare .....	208
Figure 1.1: The position of Belhare within the Kiranti branch of Sino-Tibetan .....	22



## Preface

This thesis was written mainly when I was a Ph. D. student in the Cognitive Anthropology Research Group at the Max-Planck-Institute for Psycholinguistics in Nijmegen, the Netherlands. I originally planned a thesis on spatial categories in the language and culture of the inhabitants of the Belhārā hill in Eastern Nepal, which I have been studying since 1991. This research resulted in two publications (Bickel 1994, 1996c), a third one is in preparation. In early 1994 I became more and more interested in issues that were peripheral to the spatial category research, viz. issues of verb morphology and aspectual choice. I eventually changed the plan for my thesis and began writing up what I had found out about Belhare aspect. I filed the thesis in Spring 1995 after I got back to the General Linguistics Department in Zürich, but the manuscript kept lying on my desk, more and more buried under heaps of other work. It is only now, almost two years later, that I got around to prepare the manuscript for publication. I apologise to those friends and colleagues whom I kept waiting.

In Fall 1994 I showed a first draft to my supervisor in Zürich, Karen Ebert. She rescued me from some fundamental misconceptions, particularly by insisting on the relevance of structural oppositions. By the same time I became more and more convinced by the theory of pragmatics elaborated by my advisor in Nijmegen, Steve Levinson. I also learnt a lot about meaning theory from David Wilkins, and Sabine Stoll convinced me about the relevance of Gricean pragmatics for aspectology. The analysis of Belhare would look quite different hadn't I continuously submitted my thoughts and hypotheses to Sabine's sharp scrutiny. I am highly indebted to all of them. I would also like to thank Eric Pederson, my other advisor in Nijmegen, for his careful reading of a draft and the many helpful comments and suggestions. Thanks are also due to the other members and guests of the Cognitive Anthropology Group for the discussions I had with them on aspect and related issues. Christa König read a very early draft and I thank her for her comments. Special thanks go to Edgar Suter and Kathrin Cooper for proof-reading the final draft and for important last-minute comments. Any remaining mistakes and misconceptions are of course entirely in my own responsibility

My warmest thanks go to Bimala's father (*Bimala Pa* a.k.a. *Lekh Bahādur Rāi*) for sharing his intuitions about aspectual semantics. Without his insights into the subtle differences and nuances of Belhare aspect neither description nor theory would have been possible. I am also much indebted to many other people in Belhara, especially to Bimala's mother and grandparents, Boku's mother, Jiban's parents and certainly to *Ani*, who made live extremely pleasant for the last five years and who taught me so many things about their language and would still answer my silly questions about what you

can say and what you can't. Special thanks are due to Dhan Prasād Rāī who assisted my first steps in learning Belhare back in 1992.

I would also like to thank the staff of the British Aid Support Office (BAPSO) in Dhankuṭā who helped me a lot with logistic facilitations and to Jürgen and Rita Schmid for their hospitality and for the relaxed hours we spent together in their beautiful home in Dhankuṭā.

Zürich, December 1996.

# Part I

## Preliminaries



# Chapter 1

## Introduction

The research presented in this book has its origins both in descriptive problems and theoretical concerns. When engaged in fieldwork on Belhare, a Kiranti (Tibeto-Burman) language spoken in Eastern Nepal, I struggled with several phenomena in the analysis of the tense and aspect system, which forced me to think over theories of aspect and its interaction with, on the one hand, temporal reference and on the other, lexical semantics. At the same time, work on the cognitive background of spatial deixis (Bickel 1996c) convinced me of the methodological advantages of a 'splitting' rather than 'lumping' approach to language.<sup>1</sup> Against fashionable tendencies to lump together, in various theoretical guises, semantics and pragmatics, syntax and morphology, phrase structure and grammatical relations, information and clause structure or lexical and grammatical aspect, this book assumes that our linguistic competence is the product of many interacting subsystems, each qualified by proprietary computations and/or representations. These systems are not conceived of as hierarchical steps in a derivational history within a unitary linguistic 'organ'. Rather, they represent independent dimensions which are partly integrated in general reasoning structure, and partly purely linguistic 'modules'. In this, I follow a theme uniting such diverse theories as Role and Reference Grammar, Lexical-Functional Grammar, Autolexical Syntax, or Radical Pragmatics.

The descriptive problems of the Belhare aspectual system disappear and its analysis becomes straightforward as soon as one adopts a modular approach, in particular a theory that allows to factor out semantics and pragmatics as well as, within semantics, lexical and grammatical semantics. However, most current theories of aspect, whether they are developed from a Vendlerian position (Vendler 1967, Declerck 1979, Dowty 1979, etc.) or more in line with the tradition summed up by Comrie (1976), are not fully explicit about the nature of these subsystems of aspectual meaning nor do they specifically address the interaction of such subsystems (but see Egg (1994) or Boogaart (1995), for notable recent exceptions).

This book thus has two goals. First, it describes and analyses the aspectual system of a particular language, viz. Belhare, by factoring out semantics and pragmatics as well as lexis and grammar. Second, in order to do this in explicit terms, I develop a multiplanar

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<sup>1</sup> In this way of thinking I have been greatly influenced by my colleagues in the Cognitive Anthropology Research Group at the Max-Planck-Institute for Psycholinguistics, especially by Steve Levinson, Sabine Stoll, and David Wilkins.

or modular theory of aspect, starting from work by Breu (1984, 1985, 1994) and Sasse (1991a, 1991b).

To further introduce our subject matter, I briefly present the descriptive problems encountered in Belhare (Section 1.1) and discuss in a bit more detail the theoretical concerns addressed above (Sections 1.2 and 1.3). Sections 1.4 and 1.5 give a brief introduction to the language that plays the main role in this book, Belhare. In Section 1.6 I will sketch my solutions of the descriptive problems and give a preview of the arguments in the remainder of the book.

### 1.1 Three descriptive puzzles

Belhare is a language with a rich inflectional morphology, especially in the verbal domain. The verb registers three persons (plus an exclusive vs. inclusive distinction) and three numbers of both actor and undergoer in transitives and of the single argument in intransitives. These forms combine with a complex system of mood and aspect marking, giving rise to a set of no less than 20 finite paradigms, each with 100 person/number/role forms for affirmative and negative polarity (see Appendix A for sample paradigms). Apart from the imperative and optative paradigms, the 'mood' system builds on two cross-cutting oppositions. One corresponds to the non-past vs. past opposition in related Kiranti languages such as Limbu (van Driem 1987) or Hayu (Michailovsky 1988) but is more modal than temporal in essence (for the sake of readability and comparability, though, I refrain from terminological innovation and stick to the traditional tense labels). The other opposition is one between indicative and subjunctive, which is not unlike what we are used to in Western European languages. The aspectual system is made up of an imperfective, similar to what we know from Romance or Turkic languages, an inceptive, marking 'yet' or 'already', and a 'temporary' form, specified for temporally restricted ongoing situations. The system is supplemented by a form for spatially distributed situations and by a definitive ('for sure') and an inconsequential ('s/he did it, but in vain') form. In addition, Belhare distinguishes two types of perfect, one with resultative properties, the other without.

There are mainly three phenomena that render the analysis of these forms and oppositions difficult. First, the past vs. non-past and indicative vs. subjunctive oppositions show a puzzling combinatorics in relative clauses. Whereas relative clauses in the past require subjunctive mood, they do not follow this restriction in the non-past (where indeed the indicative is more common). What would explain this rule distribution? This is the first puzzle that this book attempts to solve.



Another puzzle in the description of Belhare is the fact that in the non-past system, there are no less than four aspectual forms that compete for the expression of progressive and iterative situations. What is the difference between these forms and on what principles do speakers choose?

The third phenomenon that calls for an explanation is the following. Past, aspectually unmarked forms of a verb like *khatma* 'to go' are regularly used for present time reference (or so it seems), whereas the same forms from a verb like *cekma* 'to say' are restricted to past time or counterfactual reference. What is the reason behind this behaviour?

The first two puzzles can be solved once morphological zero forms are taken at face value, that is, as forms without any semantic content. This, however, presupposes a theory that explains how zero forms can acquire specific utterance meanings. Such a theory is available from Gricean pragmatics in the form of 'Horn-scales'. This theory, which is outlined in Section 1.2, allows a simple account of the mood distribution as well as a principled analysis of the aspect forms which compete for the description of progressive and iterative situations. The aspectual system, however, cannot be fully understood unless its interaction with lexical and propositional Aktionsart is taken into account. In fact, the solution of the third puzzle mentioned above comes precisely from an analysis of aspect – Aktionsart interaction. A theory that allows such an analysis is briefly previewed in Section 1.3, but it is further outlined and argued for only in Part III. The description of the Belhare aspect system in Part II is largely informal and does not presuppose the theoretical formalism.

## 1.2 Semantics, pragmatics, and the theory of Horn-scales

There are many ways both to differentiate and to conflate semantics and pragmatics, but two ideas about pragmatics are very important to keep apart, at least for present purposes. These are the notion of discourse pragmatics, which is mostly concerned with information structure, topic-comment articulation, coherence etc., and the notion of conversational or 'Gricean' pragmatics, which is primordially set to explain how we can mean more than we actually say. Throughout this work I shall use the term 'pragmatics' exclusively for the latter notion.

Recent theorising has attempted to dissolve the distinction between pragmatics and semantics. Two lines of argumentation have been offered. One appeals to a gradient between the two types of representation and the difficulty in disentangling them (e.g., Langacker 1987), the other tries to show that pragmatic and semantic formal representa-

tions have the same properties (e.g., Jackendoff 1983). Let me take up these arguments in turn.

It is not difficult to acknowledge that words can be ordered on a gradient of linguistic 'entrenchment' (Langacker 1987) which specifies the degree to which a word's meaning is given by its semantic structure and how much is left to pragmatic or contextual differentiation (cf. Ruhl 1989). There is, for example, a stark contrast between an extremely context-dependent item like *I* vs. a semantically richer expression like *the sun*. This does not imply, however, that a word's semantic and pragmatic factors cannot be determined with precision. On the contrary, the very assumption of a graded entrenchment presupposes that we have workable tools to measure the gradient. Such tools are the standard tools of lexical semantic analysis, for instance, tests that check for the defeasability of some content or for its syntagmatic repercussions in the form of selectional restrictions (see, e.g., Cruse 1986 or Langacker 1987: 159). Measuring the semantic and pragmatic contributions to meaning, however, leaves the question open whether the gradient extends through a homogeneous level of representation ('conceptual structure') or whether such a scale is a property of the lexicon construed by different representational systems, i.e., a pragmatic and a semantic system — just as the lexicon contains information from other varieties of representational systems, viz. morphology, syntax and phonology.

This latter question is more directly addressed by Jackendoff (1983). He argues that the representational system required for semantics can be exhaustively built up with the formal units and principles required for reasoning structure ('pragmatics'). We will see in the next section and in Part III that the aspect theory this book is concerned with adds further fuel to this argument. The primitive notions of aspect are best taken to be the same in contextualised meaning and encoded semantics; this is the 'Aspectual Uniformity Hypothesis' proposed below. However, this is not in conflict with the theory of Gricean pragmatics that I employ in the following chapters. I am not concerned with a difference in representation but with a difference in computation. What is crucial from this perspective is a difference in the mode of meaning composition, that is, in the way in which meaning is produced and derived. The semantic mode consists in encoding and decoding; the pragmatic mode follows the logic of abduction, i.e., of non-monotonic reasoning (cf., among others, Atlas & Levinson 1981, Atlas 1989, Levinson 1995, forthcoming). The abductive mode is what Grice (1975) captured by the term 'implicature' as opposed to the contextually undefeasible entailments that are encoded by linguistic forms. As has been acknowledged especially by Horn (1992), the distinction is quite traditional and very old. What may be new about it is perhaps only its cognitive interpretation as a difference of 'computations', and an **explicit** theory that attempts to explain the gap between what is said and what is meant. In traditional terminology, the

distinction also goes under the title of 'contextual' vs. 'decontextualised' meaning. As pointed out by Garvin (1994), the distinction is also largely co-extensive with the Bühlerian notions of system-derived vs. field-derived meaning, where field-derived meaning arises from symbolic co-text as much as from deictic context, and Levinson (1995) underlines the affinity to the 'utterance meaning' vs. 'sentence meaning' distinction drawn by Lyons (1977). A thorough application of a computational distinction between semantics and pragmatics provides a solution for a long-standing problem in morphemic analysis, a solution that is — as will be evident from the analyses in Part II — the key to the Belhare aspect system:

In morphological analysis we often encounter the case that a formally unmarked form apparently has a quite constant and specific semantic effect. To take a very simple example from Belhare, there are three second person pronouns, a simple form *han*, one suffixed with the plural marker *-ik*, i.e. *hanik*, and one suffixed with the dual affix *-chik*, i.e., *hanchik*. Apparently, *han* refers to singular referents, and a superficial analysis might assign this form the semantics 'second person singular'. Obviously, however, the analysis is in conflict with the other forms since *han* combines with *-ik* and *-chik*. This should be semantically impossible if the morpheme were specialised for singularity. To remedy this anomaly, the analyst might posit a zero morpheme with the value 'singular'. The structure of the innocuous word *han* now becomes a complex string *han- $\emptyset$* , where *han* encodes the second person and *- $\emptyset$*  singular number. However, such an analysis is not only in flagrant violation of Occam's razor, it is also empirically wrong. By using *han*, I do not necessarily restrict the number of referents to a single person. If, for instance, I emphasise the factuality of an event by nominalising the verb, I do not exclude that more people among the addressees went. I simply want to state that I am sure that at least one of them went:

- (1.1)     *han khar-a-k-kha!*  
           you go-PAST-2-N  
           It's that you went!

In other words, when uttering *han*, I am explicit only about the fact that I have **at least** one person in mind, not **at most** one (see, e.g., Horn 1972, Gazdar 1979, Levinson 1983 for this observation in general). Likewise, the dual form *hanchik* does not logically exclude that there are more than two persons.

These anomalies disappear if, instead of stipulating zero morphemes, we take *han* by its face value, i.e. as a sign for second person, and nothing more. For *-chik* we specify that its truth conditions are satisfied as soon as there are two referents, and for *-ik* the requirement is that there are more than two referents. The problem, then, is to explain in an explicit theory how it is possible for *han* 'second person' to constantly refer to a

singular number and normally not to be used if the speaker intends more than one referent. To the degree that there is a successful explanation of this, zero morphemes are unnecessary theoretical constructs. The theory of Quantitative Implicature (Grice 1975), enriched by the notion of Horn-scales (Horn 1972, Atlas & Levinson 1981), takes up precisely this challenge.<sup>1</sup>

Of the four Maxims that make up Grice's Principle of Communicative Cooperation, the Quantity Maxim has a highly specific application to closed semantic fields. The Maxim is two-fold, determining both an upper and a lower bound of information.

(1.2) *The Quantity Maxim* (Grice 1975)

- a. Make your contribution as informative as required (for the current purpose of exchange).
- b. Don't make your contribution more informative than is required.

The two maxims have been subject to various revisions, but for our purposes the original formulations will do. For ease of reference, I will label (1.2a) the Sufficiency Principle and (1.2b) the Minimisation Principle (following Levinson 1987). As shown by Horn (1972, 1984, 1992) and others, the two principles typically operate on semantic scales (also cf. Gazdar 1979; Atlas 1989; Levinson 1983, 1987, 1995, forthcoming; Matsumoto 1995). Such 'Horn-scales', as they have been called by Atlas & Levinson (1981), are defined as ordered sets of semantic concepts which are in a salient opposition, which are lexicalised or grammaticalised to the same degree and which have the same degree of currency or prolixity. The notion of a salient opposition is of course difficult to define, but for present purposes it suffices to restrict the notion to oppositions within a single semantic field. Then, the elements of a salient opposition differ from one another by just one feature parameter. Such is the case with antonyms and with particular dimensions of inflectional paradigms such as tense, person, number etc. A scalar ordering of salient oppositions is given, for instance, if one element implies the other but not vice versa or if one element has one feature more than the other. The first case is illustrated by the opposition between the plural and dual forms of the Belhare second person pronouns: they form a Horn-scale because plural implies dual but not vice versa. The second case is instantiated by the opposition between these two pronouns on the one hand and the unmarked base form *han* on the other hand which make up a Horn-scale because the marked forms have additional features ('dual' and 'plural')

---

<sup>1</sup> These theories have gone under the name of 'Radical Pragmatics', but in a sense they could equally well be labelled 'Radical Semantics' since they insist on a programme which attempts to isolate as 'semantic' **all and only linguistically encoded meaning**, to the exclusion of any contextual shade. The question whether semantics is best represented by truth-conditional logic or not is independent of the programme (cf. Bickel 1996a), contrary to what seems to be assumed by Wierzbicka (1987).

absent in *han*. Therefore, the semantics of *hanik*, *hanchik* and *han* defines a scale of semantic weight in a single feature field, viz. number. Following standard practice, I use angled brackets to represent scales:

(1.3) Number field: <PLURAL, DUAL,  $\emptyset$ >

The Quantity Maxim (1.2a) requires that, given a specific context and a cooperative conversational goal, one say as much as one can within a given field, i.e., that one should choose the highest possible element in a Horn-scale. If number is at issue, the speaker is supposed to use the plural *hanik* if s/he knows that more than two persons are involved. Notice that the speaker does not tell a lie if s/he uses the dual *hanchik* or the zero-form *han* instead: where the plural holds true, the dual and the singular hold true *a fortiori*. While not lying, the speaker would not be cooperative, though. In a situation where more than two people are intended, not to say so is simply not informative enough. Unless we expect uncooperative behaviour, we use the upper bound Maxim (1.2b), i.e., the Minimisation Principle, to infer from the use of *hanchik* or *han* that the speaker has not enough evidence for using *hanik*. The same applies to the contrast between *hanchik* and *han*. From *han* we infer that the speaker has neither dual nor plural reference in mind. If s/he had this in mind, s/he would have used the more specific form — at least according to the abductive reasoning characteristic of cooperative communication. The phenomenon is general indeed: use of a lower element on a Horn-scale conversationally implicates negation of a higher element. These implicatures are generalised, i.e., not attached to a specific discourse setting. They are clearly defeasible, i.e., distinct from semantic entailment. As we have seen in (1.1) above, if the focus of attention is more on the factuality of the event rather than on the precise number of the referents involved, *han* does not necessarily entail 'at most one'. This is only the implicature.

Notice that this account explains why the unmarked *han* so consistently seems to have singular reference. It acquires this value as a generalised implicature, produced by the fact that *han* is part of a Horn-scale. If a speaker does not choose to use *hanchik* or *hanik*, the Sufficiency Principle makes us think that s/he has no reason to do so because there simply is no more than one referent involved. Thus, what appears to call for a zero morpheme encoding 'singular' is in fact just a generalised implicature. From this perspective, the theory of Horn-scales and Quantitative Implicature picks up on the classical structuralist notion of privative markedness relations. Horn-scales of marked (*hanchik*, *hanik*) and unmarked (*han*) members are privative oppositions. The unmarked member of such oppositions has no positive semantics but acquires surface meaning from the nature of the opposition.

We will see in Chapter 2 and throughout the book that aspectual analysis is greatly helped by the notion of privative oppositions or the more general concept of Horn-scales. This does not only hold for the morpheme analysis of a single language, but applies equally to the quest for a typologically adequate theory of aspect. Because of a difference in the system of oppositions and paradigmatic alternations, the pragmatic surface functions of an aspect type may vary widely across languages, although there might be the same semantic definition. Chapter 2 discusses how such uniform definitions become possible if close attention is paid to Horn-scale effects. This sets the ground for an analysis of Belhare aspect that lends itself to an interpretation within a universal theory.

### 1.3 Aspect and Aktionsart

Aspectology has long been concerned with the fact that grammatical (or 'viewpoint') aspect interacts in systematic ways with the temporal characteristics of predicates or whole propositions (e.g., Garey 1957, Forsyth 1970, Johanson 1971, Smith 1983). For these characteristics I reserve the label 'Aktionsart', thereby following recent practice (e.g., Sasse 1991a, Van Valin 1993), but departing from the Slavicist tradition which narrows the concept to morphological modification (Isačenko 1962). Aktionsart in this sense covers what has variously been named 'inherent meaning', 'time schema', 'lexical aspect', 'situation aspect' or 'boundary characteristics'.

Whereas traditionally the interaction between aspect and Aktionsart is often seen as a special effect of aspect among other phenomena, this interaction has been taken as the theoretical foundation of aspect by Breu (1984, 1985, 1994) and Sasse (1991a, 1991b). The theory outlined by these authors, which may be termed 'selection theory', does not attempt to define aspect semantics in self-contained terms such as 'totality' or 'cursivity', but defines aspect categories directly with respect to Aktionsart. Aspect and Aktionsart are taken to be in an operator – operandum relationship, in which aspect selects matching items in the Aktionsart, thereby locating specific event parts in the course of time.<sup>1</sup>

To give a classical example, we may briefly illustrate the theory by the truth-conditional values of the French *imparfait* as discussed by Garey (1957):

- (1.4) a. Il se noyait mais il ne s'est pas noyé.  
He was drowning but he didn't drown.

<sup>1</sup> Similar ideas are found, *inter alia*, in the work of Langacker (1987: 254ff) and Timberlake (1985). The present version of selection theory shares some fundamental insights with Breu and Sasse but incorporates a different explanation of what constitutes a possible Aktionsart.

- b. \*Il se baignait mais il ne s'est pas baigné.  
 \*He was bathing but he didn't bathe.

The predicate *se noyer* 'to get drowned' has a different Aktionsart than *se baigner* 'to bathe'. The former but not the latter is 'telic', i.e., it includes a final transitional boundary towards which the situation develops. In a selection theory, we capture this difference in an explicit representation. *Se noyer* may be assigned a structure [situation + transition] and *se baigner* a simple [situation] Aktionsart. Aspect categories, in turn, can be defined as selectors that operate over such representations. The imperfective can be analysed as the selector of [situation] and perfective as the selector of [transition]. In (1.4) the imperfective *imparfait* selects the same unit, but in different configurations: in (1.4a) the situation precedes a final transition, in (1.4b) there is no such transition. Since the imperfective does not select the transition, *il se noyait* does not entail that the person has drowned and (1.4a) is not contradictory. On the other hand, in *il se baignait*, the imperfective selects all that there is in the Aktionsart of the predicate, whence there is no part that could be rejected in an additional clause.

This theory of aspect builds on two fundamental assumptions, the Temporal Tier Theoreme and the Aspectual Uniformity Hypothesis (cf. part III and Bickel 1995b, 1996a). The Temporal Tier Theoreme restricts aspect markers to selectors of temporal information.

(1.5) *The Temporal Tier Theoreme*

There is a cross-linguistically significant set of morphemes, traditionally called aspect markers, which operate exclusively on temporal information (the 'temporal tier') in semantic structure.

This theoreme predicts that aspect markers do not locate parts of an event (e.g., the development of an event, or its boundaries) in time by selecting, say, thematic or 'action' information (i.e. notions like motion, activity, passivity, etc.) but, rather, by selecting purely temporal information. The other foundational assumption of the theory ensures that aspect and Aktionsart can match each other, i.e., that aspect is defined in such a way as to allow a direct selection of Aktionsart elements (cf. Lyons (1977: 706), Sasse (1991a) and Timberlake (1985) for a similar point):

(1.6) *The Aspectual Uniformity Hypothesis*

Aspect and Aktionsart representations have the same format and this format is the same on all levels of meaning composition (lexical semantics, morphological derivation, sentential semantics, and pragmatic enhancement).

Weaker versions of this hypothesis are conceivable, but so far it seems possible to capture Aktionsarten, grammatical aspect and even discourse aspectuality by the same set of primitive notions. The primitive notions I propose are 'boundary' (transition) and 'phase' (situation).

A selection theory of aspect presupposes a theory of aspect semantics, a theory of Aktionsart and an explanation of what is meant by 'selection'. In the theory to be developed in Part III, aspect morphemes will be semantically defined as selectors of boundaries (represented here by  $\tau$ ), phases (represented by  $\phi$ ) or combinations of phases and boundaries. For instance, imperfective aspect is defined as a  $\phi$ -selector, perfective as  $\tau$ -selector. In keeping with the Aspectual Uniformity Hypothesis, the elements  $\tau$  and  $\phi$  are also taken to be the building blocks of Aktionsart structure. They combine in regular alternations to create a maximal set of five Aktionsarten:

<i>Representation</i>	<i>Label</i>	<i>Vendler-Dowty taxonomy</i>	<i>Breu-Sasse taxonomy</i>
[ $\phi$ ]	'durative'	activity or state	totally static (TSTA) or ?
[ $\tau \phi$ ]	'ingressive-phasal'	?	inceptively static (ISTA) or ?
[ $\tau \phi \tau$ ]	'delimitative'	activity or state	activity (ACTI) or ?
[ $\phi \tau$ ]	'telic'	accomplishment or durative achievement	gradually terminative (GTER)
[ $\tau$ ]	'punctual'	achievement	totally terminative (TTER)

*Table 1.1: Temporal Tier structures in comparison with alternative proposals*

The Aktionsarten proposed in Table 1.1 correspond only imperfectly to the Vendler-Dowty taxonomy since they are, in agreement with the Temporal Tier Theoreme, defined in purely temporal terms and since Vendler's system does not seem to distinguish between punctual achievements and verbs which denote both an achievement and its subsequent result (i.e., ingressive-phasal verbs). Also, the proposed Aktionsarten are different from Breu's and Sasse's proposal because of a different interpretation of [ $\phi$ ] and [ $\tau \phi \tau$ ]. The distinction between durative and delimitative Aktionsarten is called for by languages such as Russian which seem to distinguish non-delimited structures (e.g., *vesit'* 'to weigh'; Aktionsart: [ $\phi$ ]) from delimitative Aktionsarten (e.g., (*pro*)*suščestvovat'* 'to exist'; Aktionsart: [ $\tau \phi \tau$ ]). Since the durative type does not include any boundary, a perfective, i.e., a  $\tau$ -selector, cannot apply. This is why *vesit'* 'to weigh' has no perfective form, whereas existence can be portrayed either imperfectively (*suščestvovat'*) or perfectly (*prosuščestvovat'*). Notice that this distinction is orthogonal to the dynamicity of the predicate. The presence or absence of boundaries is not a predictor of whether the predicate encodes a state or an activity (as for instance Breu (1994) seems to assume). This follows from the Temporal Tier Theoreme and is readily illustrated by the



Aktionsart difference between the two state predicates *vesit'* and *(pro)suščestvovat'* in Russian.

It goes without saying that Aktionsarten need to be established on the basis of language-specific empirical tests. Such tests largely follow the format used by Dowty (1979) or Van Valin (1993) and assess the compatibility with time adverbials and aspect forms. For instance, telic predicates combine with *in* [x time] (*She finished her thesis in two years*), whereas other Aktionsarten do not (*\*She worked in two minutes*). Punctual predicates usually allow a  $\phi$ -selector only if they are re-interpreted as iterations (cf. *The balloons were popping* vs. *\*The balloon was popping*). A series of such tests is developed for Belhare in Chapter 12.

Armed with the notions of  $\tau$ -selector,  $\phi$ -selector and a set of Aktionsarten, we can explicate the relationship of 'selection' that is central to the theory. Theories of Aktionsart representation usually either conflate temporal information with thematic and activity notions (e.g., Dowty 1979) or they treat Aktionsarten as completely isolated from the rest of lexical and propositional semantics (e.g., Sasse 1991b, Breu 1994). The first approach is difficult to reconcile with a selection theory. Rather than letting aspectual selectors operate directly on the full range of Aktionsarten, one would have to define the domain of the operandum in an *ad hoc* fashion. Although they have equal status in the representational format, elements like CAUSE or DO might be excluded, whereas BECOME might be included. The second approach suffers from the fact that it cannot deal with observations about the impact of Aktionsart on argument structure, e.g., the observation that the argument of intransitive telic predicates is never agentive (see Foley & Valin 1984, Van Valin 1993, Tenny 1992). Obviously, Aktionsart and thematic information are connected in some way. In Chapter 11 I will propose a representational format in which the Temporal Tier is associated with thematic information in specific ways, thereby taking up suggestions by Jackendoff (1987) and Butt (1995).

The basic idea of cross-tier associations is that aspectual selection of a Temporal Tier element entails that the associated elements on another tier apply at the time of reference  $t_R$ , i.e., that they hold true at that time. The associations are constrained such that phases associate only with predicates and boundaries only with arguments. Thus, selection of a phase entails that an associated predicate applies at  $t_R$ . Selection of a boundary entails that the associated argument undergoes a transition and that a subsequent or preceding phase begins or ceases to apply. Phases need not be associated, in which case their aspectual selection does not entail application of a predicate. To illustrate these principles, let me take up the example from (1.4). In telic predicates like *se noyer* the thematic information 'drowned' is not associated with a phase, but the argument is associated with a boundary. This can be represented alternatively in a Conceptual Semantics (1.7a) or a Role and Reference Grammar (1.7b) framework.

- (1.7) a.  $\left[ \begin{array}{cc} \text{[DROWNED ( [ ] )} \\ \varphi & \tau \end{array} \right]$
- b.  $\left[ \begin{array}{cc} \text{drowned' (x)} \\ \varphi & \tau \end{array} \right]$

Selection of the phase by an imperfective (as in *il se noyait*) does not activate the predicate 'drowned', whence there is no necessary inference to the result of the event. This is why *il se noyait* is logically compatible with *il ne s'est pas noyé*. Perfective selection of the boundary, however, entails that the associated constituent, i.e. the argument, is affected by the event and that the predicate that is applied to this argument holds true.

Whereas in telic predicates the phase is not associated, this is different with inchoative predicates. These share with telic predicates the property that they are compatible with time adverbials like English *in* or French *dans* phrases (1.8a). But imperfectively used inchoatives are not defeasible (1.8b).

- (1.8) a. La couleur a changé dans un instant.  
The colour changed in a moment.
- b. \* La couleur changeait, mais elle n'a pas changé.  
\* The colour was changing, but didn't change.

The reason for this is that a change is realised as soon as it begins. This is different from telic predicates which "have to wait for a goal for their realisation" (Garey 1957: 106). The distinct nature of inchoatives is represented in (1.9) by the fact that the predicate 'changed' is associated with the phase. Selection of this phase by an imperfective entails application of this predicate right from the beginning.

- (1.9)  $\left[ \begin{array}{cc} \text{CHANGED ( [ ] )} \\ \varphi & \tau \end{array} \right]$

The difference between telics and inchoatives is, as we will see in Chapter 12, of paramount importance for Belhare. It cannot be accommodated by Temporal Tier information alone (cf. Table 1.1) and cannot therefore be described by Aktionsart theories restricted to such information (e.g., Breu 1994 or Sasse 1991b).

#### 1.4 Belhare: the language and its speakers

Belhare (in Nepali<sup>1</sup> बेलहारे *Belhāre* or, in sanskritizing newspaper language, बेलहारीय *Belhārīya*) is spoken by about two thousand people living on the Belhārā hill, one of the small but steep southern foothills of the Himālayas situated in the धनकुटा *Dhankuṭā* district of the Koṣī zone in Eastern Nepal (87° 18' E and 26° 57' N; ca. 1150 m above sea-level). The language has also been recorded as *Athpare* (Nep. *Āthpāre* or *Āthpahārīya*). As shown by Vikal & Rāī (2051), this designation has much cultural but hardly any linguistic justification. 'Athpare' refers to the ethnic unit that is constituted by the close cultural ties between the Belhare and the autochthonous inhabitants of neighbouring Dhankuṭā bazaar. The languages of the Athpare from Dhankuṭā and from Belhārā are very similar but beyond mutual intelligibility. Although calling themselves both Athpare, people recognise this linguistic difference. If clarification is required, the two sub-groups are distinguished by calling the Dhankuṭā people *Noupagari* (Nep. *Nau-pagaḍī*, literally, 'nine-turbans') and the Belhare people *Athpagari* (Nep. *Āth-pagaḍī*, literally, 'eight-turbans'), ethnonymies reflecting dominant socio-cultural categories. Occasionally and somewhat misleadingly, the Belhare are also identified as *Khālsāhī* (e.g., Dahal 1985), i.e., as the people of *Khālsā*, the region including Belhārā but stretching out in the west into a linguistically distinct area. On the other hand, the Athpare from Dhankuṭā are sometimes set off from the Belhare by the native term *Sanangguchi*, which is perceived as unpleasant. (I failed to record a (folk) etymology, though.) To avoid any confusion, the Linguistic Survey of Nepal has adopted the toponymically derived term *Belhare* as the unique designation of the language spoken by the original inhabitants of the Belhārā hill (Hanßon 1991).

The Belhare people, or, for that matter, the Athpare as a whole, are classified as *Rāī*. This term reflects the ethnic categorisation that arose in the aftermath of the forced unification and foundation of modern Nepal under king Pṛthvī Nārāyaṇ Śāh (*imperabat* 1742 – 1775). Originally an administrative title, the term was more and more perceived as the name of a social and political unit. Although indeed accepted by many groups in Eastern Nepal, the term is frequently, but not unanimously, rejected by Athpare people. Apart from being of dubious ethnological significance, the term *Rāī* does not correspond to a linguistically valid distinction because it does not extend to the neighbouring Limbu language which belongs to the same genetic sub-branch as Belhare and Athpare, viz. to the Kiranti (Nep. *Kirāñī*) family. The Kiranti family includes most languages of the Eastern area (Nep. *Pūrbāñcal*) of Nepal and extends also to adjacent areas in the west (*Janakpur* zone) and east (Sikkim). Figure 1.1 shows the position of Belhare in an abbreviated *Stammbaum*, drawn on the basis of Hanßon's (1991) tentative classification.

<sup>1</sup> See Appendix B for orthographic conventions.

Outside the eastern sub-group, I have included only the better known languages. To facilitate reference, I propose *Dhankutic* as the name of the south-western group in the Eastern branch. Needless to say, the internal division of Dhankutic is by no means established.

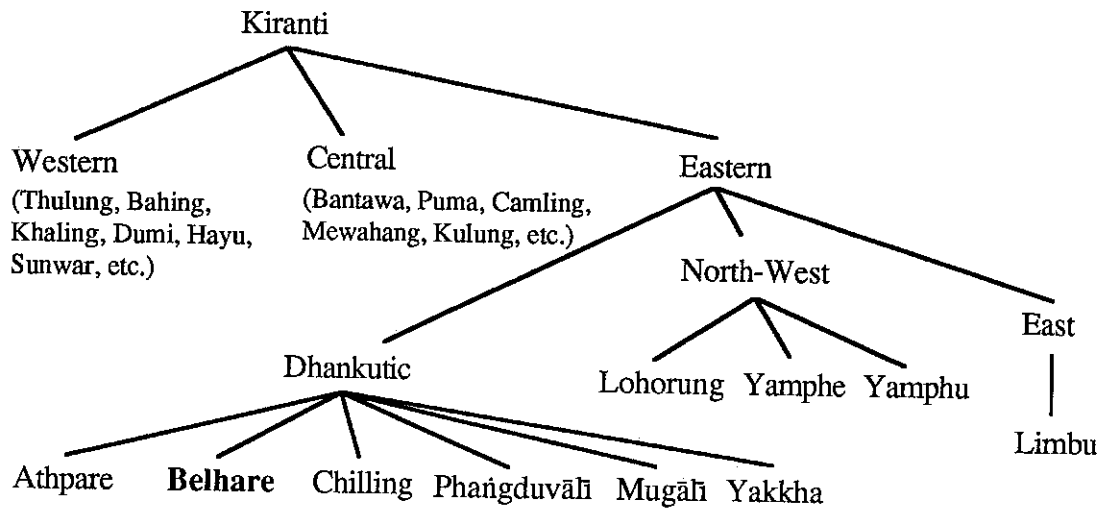


Figure 1.1: The position of Belhare within the Kiranti branch of Sino-Tibetan

The precise position of the Kiranti group within Sino-Tibetan is a matter of dispute and any statement seems premature before the reconstruction of Proto-Kiranti has received enough elaboration and sophistication. Most authors classify the Kiranti family as Bodic, if such an intermediate node (including languages like Tibetan, Magar, Lepcha etc.) within Tibeto-Burman is assumed at all. On the basis of verbal agreement morphology, the Kiranti family has been compared to the Qiangic and Nungish groups spoken, respectively, in Sichuan and the China-Burma border area (Thurgood 1984), but the level of genetic relation is far from clear. Expanding on recurrent speculations in the literature, van Driem (1993c) discusses morphological evidence for a close genetic relationship of Kiranti with Newar (*Nepāl bhāṣā*), constituting a major division ('*Mahākirāṭi*') within the Bodic family.

Virtually all speakers of Belhare are bilingual in Nepali, the national Indo-Aryan *lingua franca* that has had wider currency at least since the unification of Nepal (see van Driem 1991, Pradhan 1991). Although this bilingualism has resulted in frequent code mixing and a large amount of Nepali loan-words, the grammar of Belhare has maintained its distinct Kiranti characteristics (cf. Bickel 1995c, 1996b) and continues to exert a strong influence on the Nepali spoken by Belhare people. This confirms Turner's (1931: xiv) early observation that Nepali is deeply affected by Tibeto-Burman grammar but is strongly resistant against such influences on its vocabulary.

Apart from the first two months of fieldwork, when I enjoyed the assistance of an interpreter, elicitation was entirely conducted in Belhare since my command of Nepali at

that time was markedly worse than my knowledge of the object language. As a result, I collected all native speaker judgements and intuitions in a strictly monolingual setting. This was greatly facilitated by the fact that at home, Belhare is the preferred and standard means of communication in most households. All data referenced by a number in angled brackets (of the form <##.##>) are taken from conversational and narrative recordings, the rest stems from elicitation sessions. In either case, all examples have been re-checked by a consultant.

### 1.5 Some characteristics of Belhare grammar

Unlike many other Sino-Tibetan languages, but in line with the Kiranti group in general, the grammar of Belhare is characterized by an elaborate morphology in both the nominal and verbal domain. Nominals are inflected for number and case. The number category on nouns generally distinguishes unmarked forms from non-singular (*-chi*) but is further differentiated into dual and plural values in pronouns, demonstratives and the article. Dual and plural are also distinguished in the verbal agreement morphology. Pronouns and verbal agreement incorporate an exclusive [-addressee] vs. inclusive [+addressee] opposition in the first person. The case suffix system includes the categories absolutive, oblique (encompassing ergative, instrumental, and causal), genitive, comitative, ablative, directive, mediative ('via, through the medium N'), general locative and the 'environmental space' locatives that differentiate desinences for 'upward', 'downward' and 'across' locations (see Bickel 1996c). The absolutive is unmarked. Oblique marking of actor noun phrases ('ergative') is compulsory, except for the pronoun *ŋka* 'I' which never appears in this case. Syntactically, Belhare constructions monitor partly an accusative, partly an ergative style pivot, but in terms of discourse frequency, accusative syntax is more prominent (see Bickel, in press-a). Both clause combining and simple sentence constructions crucially involve topic marking (Bickel 1993). Together with a rich system of focus and illocutive marking devices this feature makes the information structure of a Belhare text highly explicit.

This is not to say that word order is not also exploited to signal information structure. Indeed, the order of clause and sentence constituents varies considerably in both dialogues and narratives and seems largely to follow discourse principles. Word order is not relevant for syntax. There is no syntactic rule or constraint sensitive to constituent order or clausal configurationality, and there is no evidence whatsoever for a VP (Bickel, in press-a). In contrast with clause and sentence structure, nominal constituents

are configurationally regimented in a rather rigid way. There is a complex noun phrase syntax and elements of a noun phrase are subject to extraction constraints.

Belhare belongs to what is known to Tibeto-Burman linguists since Hodgson (1856) as a 'complex pronominalized language'. The characterisation refers to the elaborate agreement morphology in the verb which reduces the use of independent pronouns to contrastive purposes and allows the typical Belhare clause to consist of a verb only. The Belhare verb cross-references, in Foley & Van Valin's (1984) terms, both the actor (A) and undergoer (U) argument of a transitive clause. In intransitives, the agentive and patientive character of the single argument is neutralised and the verb agrees with the subject (S) irrespective of its role. The morphology expressing person, number and role values is analysed in Bickel (1995a) where it is shown that there is no systematic alignment of the inflectional system in either an ergative or accusative style.

The elaborate verb agreement morphology notwithstanding, Belhare is not a concentric language in the sense of Milewski (1950) but rather belongs to the intermediate group of 'double-marking' languages in Nichols' (1986) typology. This is due to the fact that oblique case morphology is usually obligatory if there is an actor noun phrase in the transitive clause, i.e., the ergative function is always marked. Likewise, both attribute and head of a noun phrase are usually marked morphologically. The head noun optionally cross-references the attribute through a possessive prefix. The attribute is marked by a genitive suffix (*-ha(k)* after vowels, *-ŋaha(k)* elsewhere) if it is a common noun. Verbal attributes and demonstratives are marked either by the nominaliser *-(k)ha(k)* or, if the noun phrase has specific reference, by the 'article' in *-na* (or *-(k)hachi* for dual and *-(k)ha(k)* for plural number). Colour terms, which constitute a distinct lexical category, are suffixed by *-ma* if the reference is specific and by the standard nominaliser if specificity is not at issue. Numerals are marked by a classifier.

## 1.6 Preview of the analysis and structure of the book

In the next chapter, I will discuss aspectual forms in some European languages in order to set the stage for a typologically adequate analysis of the Belhare data. I will emphasise the traditional structuralist observation that a common semantic feature like 'imperfective' can give rise to rather divergent utterance meanings in different languages because the feature is bound into different systems of opposition and different Horn-scales. This observation forms an important background to the analyses put forward in this book as the most prominent utterance meanings associated with particular aspect markers look very different from what one might expect from labels such as 'imperfective' or 'inceptive'. For instance, the imperfective often manifests itself in 'continuative' ('keep doing...') situations and the 'inceptive' is often used for 'progressive' situations. It is my goal, however, to show that these discourse meanings are poor guides to the underlying morpheme semantics because of a highly constrained Horn-scale that structures the system of oppositions.

The main part of the book, Part II, is devoted to a detailed description of the tense/mood and aspect markers in Belhare. In Chapter 3 I will first outline the morphology and lexical phonology of verb inflection, especially of the first two slots after the verb stem where tense, mood and aspect are expressed. Chapter 4 discusses the tense/mood system, resulting in the following semantic definitions:

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<i>-t ~ -yuk</i> 'non-past'	signals that the realisation of the situation may be affected by influences arising from the present situation.
<i>-he</i> 'past'	signals that the situation is dissociated from any possible influence from the present.
<i>-att</i> 'past negative'	signals that a past ('dissociated') situation could have been the case (but wasn't).
<i>-a</i> 'past subjunctive'	signals that the proposition is pragmatically presupposed and outside the scope of illocutionary force.
<i>-yuk</i> 'definitive'	signals that the speaker is confident about the realisation of the event.
<i>-a ~ -an</i> 'imperative'	signals a directive speech act.
<i>-ma</i> 'citation form'	mentions a situation without any temporal or modal specification.

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*Table 1.2: Tense/mood semantics*

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In addition to the marked forms in Table 1.2, there is a maximally unmarked form in which the bare stem is directly inflected for person and number. This zero form covers all the functional ground left over by the system in Table 1.2 and forms Horn-scale oppositions with the marked subjunctive past (1.10a) in *-a* and the indicative non-past (1.10b) in *-t ~ -yuk*. The latter opposition reverses the modal markedness relationship that obtains in the past system (1.10c).

- (1.10) a. Subjunctive tense field: <SUBJUNCTIVE PAST,  $\emptyset$ >  
 b. Non-past mood field: <INDICATIVE NON-PAST,  $\emptyset$ >  
 b. Past mood field: <SUBJUNCTIVE PAST, INDICATIVE PAST>

These scales have the following pragmatic consequences. Where the past subjunctive would have been possible, use of the zero form implicates a non-past value, similar to the marked non-past form in the indicative mood (1.10a). Where (indicative) non-past in *-t ~ -yuk* would have been possible, use of the zero form implicates a non-indicative value (1.10b). This value is usually taken as subjunctive, making the form look like the non-past counterpart of the past subjunctive. However, because the zero form has no positive 'indicative' value it also covers much other deontic and epistemic speech acts. This unmarked status of the zero-form solves the first puzzle mentioned in section 1.1 above. In non-past relative clauses, both the zero-form and the (indicative) non-past in *-t ~ -yuk* occur, but because of the Sufficiency Principle the non-past marker is far more common. In past relative clauses, however, it is not the (indicative) past in *-he* but the subjunctive in *-a* that is the most informative choice (1.10c). This is so because the opacity to illocutionary force attached to *-a* exactly fits the presuppositional semantics of restrictive relative clauses. This form is therefore more precise than the past in *-he*, which is unmarked with regard to illocution.

The aspect system is discussed in chapters 5 through 8. The analysis is summarised in Table 1.3. Throughout the book, the inceptive, temporary and imperfective are subsumed under the heading 'cursive' since they share the ability to explicitly express events in progress (*in cursū*) at the moment of reference. The 'spatially distributed temporary' has the same semantic features as the 'temporary' aspect, except for an additional notion of spatial distribution.



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-yakt ~ -ya ~ -yau 'imperfective'	signals that the situation develops at the moment of reference.
-hett 'temporary'	signals that the situation develops in the present but is temporally restricted (in a way dependent on the Aktionsart).
-kon 'spatially distributed temporary' [not with oriented motion verbs]	signals that a spatially distributed situation develops in the present but is temporally restricted.
-kett 'inceptive' [not with affirmative forms from other than 'oriented motion verbs']	signals that the situation has started to develop in the present.

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*Table 1.3: Aspect semantics*

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The cursive aspects differ as to the amount of semantic content. This orders them on a four-valued Horn-scale that also includes verb forms without aspectual marking. Because all markers except the imperfective are constrained to present time reference, the scale is only valid within this temporal domain. In the past, the imperfective is the only cursive aspect available.

(1.11) Cursive aspect field: <INCEPTIVE, TEMPORARY, IMPERFECTIVE,  $\emptyset$ >

The scale induces the following pragmatic inferences. If the inceptive had been possible, use of the temporary conversationally implicates a non-inceptive time structure. In the affirmative, this is only relevant for a specific group of verbs (called 'oriented motion verbs') because the inceptive is restricted to this group. On verbs from this group, the temporary implicates an Aktionsart different from their inherent lexical structure. The only way of changing an Aktionsart by purely pragmatic means is to pluralise the event and to implicate an iterative reading. The spatially distributed temporary ('SDT') does not participate in the opposition because it is banned from the verbs that the inceptive is specialised for. The SDT is fully integrated, however, into the opposition between the imperfective and the higher-ranking aspects:

If a higher-ranking aspect had been possible, i.e., in forms with present time reference, the imperfective implicates a non-temporary value. Usually this is taken as a continuative value. Where continuation cannot have been intended honestly, the imperfective implicates irony. Finally, if any of the cursive markers had been possible,

use of the simple form or the definitive implicates a non-cursive value. This is usually taken as perfective. However, in static situations, the simple and definitive forms are not in Horn-scale opposition with the cursive aspects. This is so because for static situations an aspectually unmarked form is informative enough. There is no pragmatic pressure to use a more specific aspect because a single non-extended moment provides enough information about a state (e.g., a certain temperature). This is in contrast with dynamic situations, where more than one moment is necessary to judge whether the event is the case or not (e.g., whether somebody is cooking rice or is just sitting in the kitchen).

Together with a short *capitulum*<sup>1</sup> on the inconsequential — a form that cancels expected consequences — Part II concludes with a discussion of the two perfect forms of Belhare (Chapter 9). The forms share the notion that a past event stands in a specific relationship with the moment of reference, but the resultative perfect additionally signals that the results of the past event are still perceptible at the moment of reference. This difference in semantic force again defines a Horn-scale, in which the simple past (-*he*) plays the role of the maximally unmarked member:

(1.12) Perfect field: <R-PERFECT, PERFECT, SIMPLE PAST>

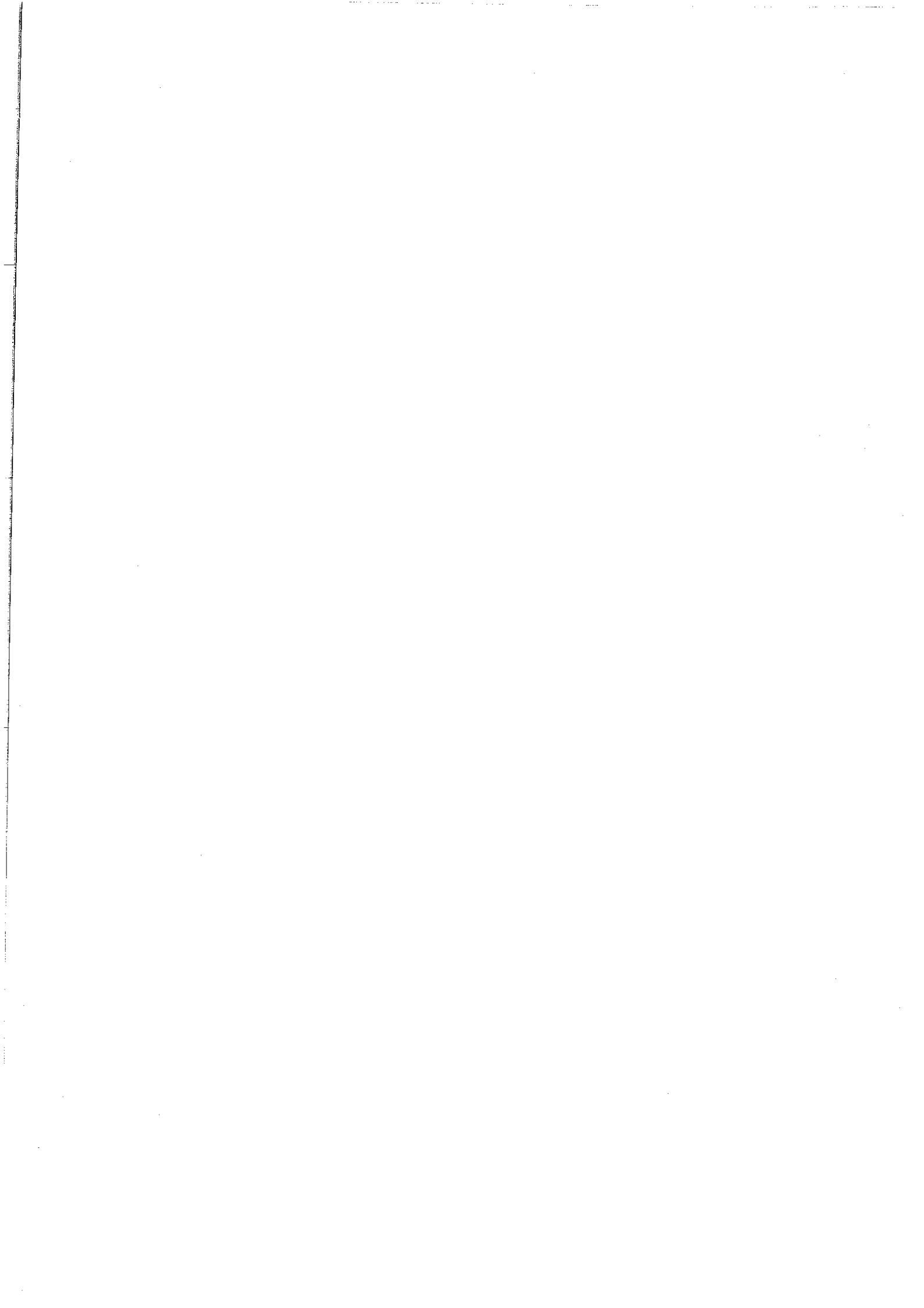
The scale introduces the following implicatures: if the r-perfect had been possible, the use of the perfect implicates a non-resultative reading. Usually, this suggests that there is no longer a perceptible result of the prior situation. If both the perfect or r-perfect had been possible, the simple past implicates a non-perfect value. This means usually that the prior event is not connected with the present, i.e., that it did not leave any traces.

When browsing through the aspect markers in Table 1.3, it appears that all aspectual definitions have to do with developing situations and boundaries, but none with iteration or actuality. The third part of the book takes up this observation and proposes a formalisation of the aspect definitions in terms of 'phases' ('situations') and boundaries. In Part III these formal definitions are built into a selection theory of aspect along the lines sketched above in section 1.3. Chapter 11 introduces the theory. Particular emphasis is placed on the observation that lexical Aktionsarten can be 'recategorised' by semantic and pragmatic operations which 'pluralise' events to create iterations or which introduce additional boundaries. In Chapter 12, the theory is applied to Belhare. I first postulate formal definitions of Belhare aspect semantics in terms of boundary and/or phase-selector. The inceptive is defined as selector of initial boundaries ('< $\tau$ , >'), the temporary and the SDT select phases and adjacent boundaries ('{ $\phi$ ,  $\tau$ }') and the imperfective is a plain phase (' $\phi$ ') selector. This formalisation allows a simple account

<sup>1</sup> a tribute to Matisoff's organisation of his 1973 Lahu grammar.

of the various readings that the aspect markers have, dependent on lexical Aktionsart. In order to show this, I develop a series of tests establishing five basic Aktionsarten.

Ingressive-phasal ([ $\tau$   $\varphi$ ]), delimitative ([ $\tau$   $\varphi$   $\tau$ ]) and punctual ([ $\tau$ ]) Aktionsarten can be defined by their time structures alone. The distinction between inchoative and telic Aktionsarten relies on the presence (inchoative) vs. absence (telic) of an association of the phase symbol in [ $\varphi$   $\tau$ ] with the predicate's semantic constituents. In addition to the five basic Aktionsarten, Belhare also has a large group of 'two-phase' verbs which are systematically ambiguous between a delimitative and a telic/inchoative reading. In Chapter 13, finally, I discuss 're-categorisations' of lexical Aktionsarten that arise from boundary-addition ('delimitation') and event pluralisation ('iteration'). This is particularly relevant for an understanding of motion verbs and the opposition between inceptive and other aspect marking on these verbs.



## Chapter 2

### Aspect definitions across languages

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In studies of individual languages, aspectual forms are often defined in a way that seems suspect from a cross-linguistic perspective. For instance, the English 'progressive' is sometimes defined as presenting "an interior perspective, from which the endpoints of an event are ignored" (Smith 1983: 482). This is the exact equivalent of what has sometimes been proposed as the definition of 'imperfective' aspect in Russian: a form that focusses on the internal structure of an event, suppressing its potential endpoints (e.g., Maslov 1974, Isačenko 1962). Yet it is evident that the Russian imperfective is very different from the English progressive, as any Russian who has tried to master English and any English speaker who has learned Russian will wholeheartedly agree. The problem is far more common than one might suspect. All Slavic languages, for instance, are said to have an opposition between perfective and imperfective. The opposition is frequently defined in an identical way, usually by positing a feature of totality or boundedness for the perfective and 'internal structure' or zero for the imperfective (see Mønnesland 1984 or Dahl 1985 for reviews). However, in Slavic linguistics it is a well-known fact that the aspect opposition is not the same in any two languages (see, for instance, Maslov 1985). Especially prominent is the difference between Russian and Czech. Where Russian uses a perfective, Czech often prefers an imperfective and vice versa. For instance, iterative events and generic ('gnomic') statements are very often cast in the perfective in Czech, an option that is available in Russian only under highly marked stylistic conditions. On the other hand, Czech allows imperfectives when events appear in a sequence. In Russian, this is usually impossible. This phenomenon has received detailed attention, most recently by Stunová (1993). Notice that it will not do simply to deny the labels 'perfective' and 'imperfective' to one of the two languages and to introduce new terms for the other one. In many respects, Czech and Russian aspect is very similar, and these common properties should be captured. The same applies to the shared features of the English 'progressive' and the Russian 'imperfective'.

In this chapter I will argue that much of the confusion is due to a neglect of pragmatics in aspectology, especially when it comes to typological issues or the analysis of undescribed languages. Aspect definitions often mistake generalised conversational implicatures as part of the semantics of the form. Once the semantics of a language-specific morpheme is richer than needed and includes any contextual shade (often taken

as fuzzy boundaries or even diachronic instability), the cross-linguistic variation becomes almost infinite, the quest for cross-linguistically valid aspect labels futile. These problems can be reduced if the language-specific systems of opposition are analysed. This insight has been widely acknowledged by structural linguists (e.g., Jakobson 1932, Forsyth 1970, Johanson 1971, Cohen 1989) but seems to have got out of sight in current theories which view meaning as being structured essentially by prototypes and fuzzy boundaries. The traditional danger of structural analyses is that, in their attempt to isolate pure semantics, the rich contextualised meanings are not explicitly accounted for and, specifically, no attempt is commonly made to relate semantic structure to generalised implicatures. As suggested in the introductory Chapter, the theory of Quantitative Implicature and Horn-scales provides a principled tool to address these issues.

In what follows, I shall first discuss the idea of Horn-scales in aspectology, using the notoriously difficult distinction between aspect in Russian or Czech and in English for illustration. This will take us through a discussion of 'imperfective' (Section 2.1), 'perfective' (2.2) to an assessment of state predicates in a Gricean analysis of aspect systems (2.3). I pick these (admittedly Eurocentric) examples not only because of their central place in the literature but also, and even more so, because they show many issues that we will come across again in the analysis of Belhare.<sup>1</sup> The discussion of these issues is not meant to yield full-fledged analyses, let alone definitions, of Russian and English aspect. My goal is, rather, to set the ground for a typologically adequate analysis of Belhare, i.e., an analysis that is in principle compatible with analyses of other languages. In Section 2.4 I will explore the notion *obščefaktičeskoe značenie* ('general-factual meaning'), which has a firm tradition in Slavic aspectology but which may easily lead to confusion in a more general typology of aspect.

## 2.1 The English aspect problem

When exploring the status of the English 'progressive', terminological caution is in order. I shall stick to the practice adopted by, among others, Comrie (1976) and Dahl (1985) and restrict the term 'progressive' to aspect markers that are bound to actual events progressing at the moment of reference. Examples of the category are periphrastic constructions like French *être en train de* or German *am V sein*. What is crucial about

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<sup>1</sup> Aspectology is an extremely well-covered field as far as European languages are concerned. I am sure to have missed many important references in the following and can only plead exhaustion.

such forms is that they cannot refer to iterated or other non-actual events (Garey 1957). This becomes evident when we consider a Swiss German example with *immer* 'always':

- (2.1) Früener bi<sup>n</sup> i um die zitt imer am schaffe<sup>n</sup> gsi.  
 before am I at DEM time always at work been  
 In the past, I would always be working at this time.

The quantifier in this example could lead to an iterative interpretation of the event denoted by the verb. Instead of this, however, *immer* 'always' operates on the time specification *um die zitt* 'at this time' rather than on the verb: it was always the case that I was working at this time, i.e., at all instances of the time specification the work was in progress. In other words, what is iterated in (2.1) is not the verb but the adverb. The verb keeps its actuality, but this actuality does not hold with respect to a single time of reference but rather with respect to an iterated time. This contrasts with the English 'progressive', where the verbal event itself can be iterated. Consider the following example borrowed from Comrie (1976: 37)

- (2.2) At that time, I was working the night shift.

The time specification describes the time span within which the iteration holds true. Such a reading is impossible with Swiss German examples like (2.1). Accordingly, deletion of *um die zitt* in (2.1) results in an odd sentence suggesting that I was an extremely hard-working person, continuously engaged. Iteration is excluded. By contrast, the English form in *-ing* can easily be used for iterative events, not only in examples like (2.2), but also in cases like the following.

- (2.3) a. Is he still commuting to Berkeley?  
 b. She is writing a lot these days!

From this, it seems that the English 'progressive' is better analysed in terms different from 'actual progression'. At the beginning of this Chapter, I mentioned that the form is sometimes defined, if not labelled, in the same way as an imperfective. The question is whether such a definition can be maintained in view of the many differences between the English 'imperfective' and its counterpart in other languages, e.g., in Russian (e.g., Maslov 1974) or Turkish (e.g., Johanson 1971). What are these differences?

The most salient functional difference relates to states. It has often been claimed that the *-ing* form is incompatible with states or static Aktionsarten. Indeed, the claim seems to be empirically correct (Comrie's (1976: 38f) examples):

- (2.4) a. \* You're seeming well.  
 b. \* Fancy that! you are knowing all about quantum mechanics!

By stark contrast, the Russian (2.5a) or Turkish (2.5b) imperfective is not only compatible with states, but it is the normal, if not compulsory, choice. Predicates that are lexically predetermined for a static value (e.g., Russian *vesit* 'to weigh' or *prinadležat* 'to belong') are even *imperfectiva tantum*.

- (2.5) a. Ty vygljadiš' kak ptica.  
 2s look.like:IPFV:PRES:2s like bird  
 b. Kuşa benz-iyor-sun. <Johanson 1971: 216>  
 bird resemble-IPFV-2s  
 You resemble a bird.

Salient though it may seem, incompatibility with states or static predicates can hardly be stated in the semantics of the *be...V-ing* form so as to distinguish it from an imperfective in Russian or Turkish.

There are many situations where the *-ing* form fits static predicates (cf., e.g., Joos 1964, Comrie 1976, Smith 1983, Bertinetto 1994, etc.). In all cases, however, there is a special connotative effect. This is different from Russian or Turkish. One effect is 'temporary validity' (Joos 1964). The examples in (2.6) are discussed by Langacker (1990: 94).

- (2.6) a. This machine is lacking a control lever.  
 b. This machine lacks a control lever.

Langacker observes that (2.6a) denotes a "bounded episode", "it intimates a contingent situation finding the machine in need of repair". This is different from the simple form in (2.6b) which "suggests that the absence of the lever is part of the machine's design" (*loc. cit.*). A similar effect of temporal restriction can also be found with many other static predicates:

- (2.7) a. The machine is (urgently) needing oil.  
 b. My back is hurting (again).  
 c. Peter is believing in ghosts (these days). <Smith 1983: 493>  
 d. John is resembling his great-uncle (these days). <Smith 1983: 483>  
 e. Pacific Linguistics is having a very cheap sale, finishing shortly. <e-mail>



Could it be that this effect is linked to a particular variety of static Aktionsart? One might want to assign *to lack, to hurt*, etc. an Aktionsart of ‘temporary state’ or ‘state that is open to potential change in time’. This Aktionsart, but not ‘unlimited states’, could then be said to be compatible with *be...V-ing*, much in line with the idea of ‘mismatching’ and ‘matching’ between aspect operators and Aktionsarten that is central to selection theories of aspect (cf. section 1.3). The *-ing* form would be distinguished from an imperfective by its incompatibility with the Aktionsart of ‘unlimited state’ predicates. There are difficulties with such an approach, however.

First, postural predicates too belong to the ‘temporary state’ group: sentence (2.8a) says something about John’s habitual place, say, at the family table at home, whereas (2.8b) refers to his current position and posture.

- (2.8)    a. John sits there.  
           b. John is sitting there.

However, the ‘temporary validity’ reading or the absence of habituality associated with *be...V-ing* in (2.8b) is fully defeasible. This is shown by the often quoted example in (2.9) (attributed to Dowty by Bertinetto 1994: 419), where *be...V-ing* fails to convey an idea of ‘temporariness’:

- (2.9)    John entered the room. The president was sitting as usual at his desk.

This makes it doubtful whether the effect is semantic at all and whether it should be ascribed to lexical Aktionsart.

Second, with other predicates that describe states, the *-ing* form is possible but has an effect different from ‘temporary validity’. The effect does not seem to be sensitive to temporal extension and includes predicates like *to think* or *to remember* as much as *to disturb* or *to be silly*. With these predicates, the *-ing* form induces an implicature about the subject’s activity. Compared to their simple form counterparts, the forms in (2.10) suggest that the subject referent is an agent rather than an experiencer or theme:

- (2.10)   a. He is thinking (hard).  
           b. She is remembering the whole story.  
           c. He is (really) disturbing!  
           d. She is being silly!

In cases like these, one might speculate with, e.g., Chung & Timberlake (1985), that the predicates involve a 'processual' Aktionsart. Thus, we would have two sub-types of static predicates allowing the *-ing* form: temporary states and 'quasi-processual' states. It is entirely unclear, however, how the two groups and their elements (say, *to be silly* in (2.10d) and *to resemble* in (2.7d)) could be distinguished independently of aspect. A satisfying Aktionsart-based analysis does not seem to be available for the cases in (2.6) through (2.10), at least not under current assumptions about Aktionsart (be it in the Vendlerian or Slavicist tradition or in frameworks such as Johanson's (1971, 1994a, 1994b, forthcoming) or Breu's (1986, 1994)). It seems that many other parameters of both lexical meaning and world knowledge are involved.

A third problem for a restriction of *be...V-ing* to limited states and an exclusion from unlimited states arises from iteration. In example (2.2) (*At that time, I was working the night shift*) we saw how an iterative reading of *be...V-ing* can be temporally restricted. This fits the expectations since states and iterations are expected to behave similarly. However, iterations described by *be...V-ing* also occur with an explicit cancellation of temporariness:

- (2.11) a. He is always talking nonsense.  
 b. You are always bothering me.

The only way to solve this problem without discarding the notion of 'temporary validity' from the semantics of *be...V-ing* seems to be a denial of the aspectological parallelism between states and iterations and a restriction of the 'temporary validity' feature to true states. This is in conflict with the large body of evidence for the generalisation that states and iterations have a very similar time structure because they both differ from actual ongoing events by necessarily holding for an interval longer than the moment of reference (see, e.g., Mehlig 1980, Mourelatos 1981, Talmy 1988, Verkuyl 1989, Jackendoff 1991, etc.).

Given these difficulties and dilemmas, it seems doubtful whether the differences between the *-ing* form and a regular imperfective can at all be derived from a semantic restriction of the form. Indeed, one shares Comrie's (1976: 38) impression of the "idiosyncratic" nature of the English aspect marker.

The picture becomes less confusing, however, if we look at the non-imperfective forms to which imperfectives and *be...V-ing* are opposed, viz. the perfective in Russian and the simple form in English. Here, too, limitation of states suggests itself as the crucial parameter for the distinction between the Russian perfective and the English simple form. But the question is whether 'limitation' is a semantic or a pragmatic effect.

## 2.2 States and perfectives

At first sight, the Russian and the English 'perfective' categories are much alike since both portray a situation in its 'totality', as a "single whole, without distinction of the various separate phases that make up that situation" (Comrie 1976: 16). Yet closer inspection shows that the categories are very different, and that it is the notion of 'having reference to one or more limits' (Russian *predel'nyj*)<sup>1</sup> that is crucial for the perfective, and not the idea of 'totality' (cf., among others, Dahl 1985, Maslov 1985, Sasse 1991b, Breu 1994 Cohen 1989).

An obvious difference between the Russian perfective and the English simple form is the following. Generic statements like *he smokes* are translated into Russian as *on kurit*, i.e., with an imperfective. The perfective *on pokurit* would suggest a limited time span. The same observation extends to static predicates. If such predicates can occur in the perfective, they describe temporally limited states. This is illustrated by the following examples.

- (2.12) a. On pobyl zdes'.  
 3sM:NOM be:PFV:PTsM here  
 He was here for a moment.
- b. Rimskaja imperija prosuščestvovala  
 Roman:sF:NOM empire:sF:NOM exist:PFV:PT:sF  
 pjat'sot let. <Maslov 1948:303>  
 five.hundred year:pNEUT:GEN  
 The Roman Empire existed for five hundred years.

Alternatively, the predicate has an ingressive value, it is an 'achievement' predicate in the sense of Vendler (1967). The notion of 'ingressive' logically implies a subsequent state, but this state is not co-denoted by the predicate (cf. Bickel 1996a). The perfective form *ponjal* 'he understood' in (2.13) cannot be interpreted as a temporary state. This is why it cannot substitute for the imperfective in (2.13b).

- (2.13) a. Ja ego ponjal.  
 1s him understand:PFV:PT  
 I got to understand him.

<sup>1</sup>Notice that this is not the same as 'bounded' (German *grenzbezogen*) in the sense of 'telic', i.e., 'developing towards an inherent goal (*telos*)'! Much aspectological confusion is due to unwarranted equations of 'having reference to a boundary' with 'telic' (see Egg (1994) for a recent attempt to disentangle various notions of boundedness.)

- b. Ranʃe ja ego       $\left. \begin{array}{l} *ponjal \\ \text{understand:PFV:PT} \\ \\ \text{ponimal} \\ \text{understand:IPFV:PT} \end{array} \right\} \begin{array}{l} \text{no sejčas bolʃe} \\ \text{but now more} \end{array}$
- before I him
- ja ego ne ponimaju.  
I him NEG understand:IPFV:PRES:1s

Before, I understood him, but now, I don't understand him any longer.

Other state-related predicates include in their lexical Aktionsart meaning both the inception and the subsequent state. This seems to be uncommon in Russian, although *ostavat'sja* (ipfv)/*ostat'sja* (pfv) '(to come to) remain, stay, be left behind' may be a case in point. In other languages, for example, in Romance, Greek, Turkic, and — as we will see — in Belhare, such predicates are quite wide-spread. They are classified as 'initio-transformative' (Johanson 1971, 1994, 1996, forthcoming) 'inceptively static' (Breu, 1985, 1994) or, in the present work, as 'ingressive-phasal'. The perfective highlights the inception of a state denoted by the predicate. This makes it possible, unlike the case of pure achievements as in (2.13), to delimit the state with syntactically or contextually introduced boundaries. A famous and often quoted example for this is from Ancient Greek:

- (2.14) a. *ebasleuse*.  
          reign:PFV:PT:3s ('Aorist')  
          He became king.
- b. *étē pentēkonta ebasleuse*.  
          year fifty reign:PFV:PT:3s ('Aorist')  
          He reigned for fifty years.

Semantically, the perfective in these examples only signals inception, not limitation. The form *ebasleuse* entails that the referent became king, but is semantically indifferent as to the further development of this state. The limitation effect in (2.14b) is entirely due to the adverbial time specification *étē pentēkonta* 'fifty years'. Temporal limitation can also arise from the discourse context. This can result, for instance, from narrative consecutivisation as in the following Spanish example (2.15a) discussed by Chapado & García (1991 : 50f). In other contexts the verb *ser* 'to be' behaves as an ingressive-phasal verb (2.15b).

- (2.15) a. Fernando fue agente de seguros, perteneció a la mafia, se casó, se divorció.

Fernando was an insurance agent, then he belonged to the mafia, got married and divorced [again].

- b. Fue médico a los 24 años.

He became a doctor at the age of 24.

These examples show that the perfective refers to the boundaries of a state, be it the initial boundary of a state as in (2.14), be it both the inception and the termination of a state as in (2.12), or be it only its inception as in (2.13). This finding supports the hypothesis that the perfective can indeed be defined by reference to situation boundaries, as suggested above. Excluded from the perfective are Aktionsarten that do not include any boundary, to wit, unlimited states. These are *imperfectiva tantum*. The English simple form, in contradistinction, covers all sorts of static predicates alike and is not excluded from unlimited states.

At first sight, there is an interesting counter-example to the exclusion of the perfective from unlimited states. In some Slavic languages (but not usually in Russian) we find perfective forms referring to unlimited, even generic situations (cf. Mønnesland 1984). Consider the Czech example in (2.16), adapted from Petrušina (1983: 164).

- (2.16) U kovů odpor při velmi nízkých teplotách  
of metal:GEN resistance at very low:LOCp temperature:LOCp  
úplně zmizí.  
completely disappear:PFV:NPT:3s

At very low temperatures, the resistance of metals disappears completely.

The perfective in this example is rather reminiscent of the English simple form. The seeming parallelism goes even further. Iterative events, too, are frequently expressed by perfectives in Czech. This behaviour of the perfective, which corresponds to the English simple form, is illustrated by the following example from Stunová (1993: 69). Notice the perfectives *uhodil* 'he beat' and *zabretal* 'he muttered' that are interspersed between imperfective forms.

- (2.17) U jednoho stolu spal opilý sardinkár, chvílemi  
at one:GEN table:GEN sleep:IPFV:PT drunk fishmonger from.time.to.time  
se probouzel, uhodil pěsti do stolu, zabretal:  
REFL wake.up:IPFV:PT beat:PFV:PT fist:INSTR in table:GEN mutter:PFV:PT  
“Nejde to!”, a zas spal dál.  
NEG:go:PFV:IMP DEM and again sleep:IPFV:PT further

At one of the tables there was a fishmonger sleeping. From time to time he became half awake, beat with the fist on the table and muttered "Don't go!" and then he was sleeping again.

Such aspect choice is extremely atypical for Russian. The difference between the two languages is usually taken as one of aspectual scope (Timberlake 1982, Mønnesland 1984, Eckert 1985, Stunová 1986, etc.). In Russian, aspect operates mostly on the propositional level, focussing on the state-like quality produced by the iteration of individual sub-events. In Czech, aspect choice is operative on the micro-level of the individual event. This makes it possible to use the perfective in (2.16) and (2.17). An imperfective in the preceding Czech examples would emphasise the progressive character of an individual micro-event, sometimes suggesting that the process did not reach its conclusion. For instance, the imperfective *se probouzel* in (2.17) suggests that the subject referent became only half awake. By contrast, the perfectives *uhodil* 'he beat' and *zabretal* 'he muttered' signal a complete event. In the following example, the perfective is almost compulsory since the imperfective would implicate a rather different contention, viz. that the speaker was never convinced (Stunová 1993: 37).

- (2.18) Často mě přesvědčil.  
 often 1sACC convince:PFV:PT  
 He often convinced me.

A translation of sentences like (2.16–18) into Russian, however, usually requires an imperfective. Russian aspect normally operates on the macro-level, where the repetition as a whole is comparable to an unlimited state. Thus, (2.18) is rendered as (2.19) in Russian without any implicature about the subject's lack of argumentative force.

- (2.19) On menja často ubeždal.  
 3s 1sACC often convince:IPFV:PT  
 He often convinced me.

A Russian perfective can only have a generic meaning if the form summarises a series of events into a single over-all totality (Russian *summarnoe značenie*, cf. Maslov 1974) or if it has a modal connotation and strongly suggests 'capability'. In iteration, the perfective can operate on the level of the individual sub-event if the sub-event is taken as a 'vivid exemplification' (Russian *nagljadno-primernoe značenie*; cf. Chapter 13). In Czech, such stylistically marked connotations are noted to be possible but less typical.

The analyses by Timberlake and others suggest that the seemingly strange behaviour of the perfective in Czech is best accommodated without revising the semantic definition

of the aspect markers. The difference between Russian and Czech is one of aspectual scope, i.e., a syntactic concept, rather than morpheme semantics (but see Stunová (1993) for an attempt to build scope properties into morphological *Gesamtbedeutung*). It also shows that iteration, habituality and genericness are not crucial notions in the semantics of the perfective vs. imperfective opposition (cf. Forsyth 1970, Jakobson 1932, Garey 1957, Johanson, 1971: 96f, Timberlake 1985), or as noted by Meillet: “La notion de répétition n’a [pour l’aspect imperfectif] aucun caractère essentiel.” (1934: 282) We will see that this statement also holds true for Belhare.

Thus, the perfective in Slavic languages, at least in Czech and Russian, can uniformly be defined by reference to boundaries. The forms are excluded from predicates whose Aktionsart lacks boundaries, i.e., totally stative verbs (*imperfectiva tantum*) such as Russian *vesit’* ‘to weigh’ or *prinadležat’* ‘to belong’ and their Czech equivalents. By contrast to this, the English simple form is not sensitive to the presence or absence of boundaries. Although with static predicates the form usually has an imperfective value, it is not impossible for it to refer to the boundary of a state. The context seems all-decisive:

- (2.20) a. Suddenly, he knew the answer. <Mourelatos 1981>  
 b. John went to Africa after he knew Hausa <Smith 1983: 485>  
 c. I knew Robert after he believed in trolls. <Smith 1983: 485>

From this, one might want to conclude, with authors like Joos (1964), that the English simple is aspectually neutral. There is one apparent obstacle, viz. the fact that the form cannot refer to an ongoing process at the moment of reference. Whereas an aspectually neutral zero form in French (and many other languages) can describe progressive events, this seems impossible in English. In answer to the basic aspectological test question ‘What are you doing right now?’, French allows the use of the simple form whereas English requires the *be ... V-ing* form.

- (2.21) Il abat un arbre.  
 He is chopping down a tree.

This behaviour of the English simple form is similar to that of a true perfective *à la russe*. Should we conclude that the simple form is polysemous: perfective with dynamic predicates, aspectually neutral with state-related predicates? Such a solution is certainly not very elegant since it postulates a complex meaning for a zero morpheme, i.e., for nothing. Also, the semantics would need to be restricted to certain discourse genres. There are exceptions, where the simple form denotes events that are in progress at the

moment of reference. This is the case, for instance, in simultaneous reports as illustrated by Thelin (1990) with the following example.

- (2.22) John quickly builds the house (of cards), with some difficulty blows the balloon up, bursts it and runs to the winning-post.

In the following, I show that the polysemy solution is not only extremely unelegant but also unnecessary. A pragmatic account captures the distributional observations with more ease and more precision.

### 2.3 Horn-scale computations and the pragmatics of states

There is one reason why one might be reluctant to classify English *be...V-ing* as 'imperfective' on a par with the Slavic categories: the incompatibility with some state predicates and the various effects it has with other state predicates. On the other hand, the reason why one might want to postulate a positive semantic value for the English zero form is its seeming exclusion from progressive situations. Both problems can be resolved if we take the system opposition into account: the zero form cannot usually have 'progressive' value because it is pre-empted by an imperfective and the imperfective is atypical for states because it is pre-empted by a zero form. This hypothesis presupposes (a) an explication of what is meant by 'pre-empted' and (b) a theory of state conceptualisation.

The notion of pre-emption is best explicated within the theory of Quantitative Implicature presented in Chapter 1. Although the simple form is normally banned from use for currently ongoing events, we saw in example (2.22) a context where this restriction is cancelled. This suggests that the restriction is of a pragmatic nature, linked to specific discourse genres.

Moreover, if we take the simple form at face value, to wit, as a semantic zero, the two aspect categories make up a Horn-scale. This is justified by the fact that the opposition between *be...V-ing* and the simple form in English is fully grammaticalised and forms an obligatory paradigmatic alternation. The scale varies along a two-valued aspect parameter:

- (2.23) Imperfective field: <IMPERFECTIVE,  $\emptyset$ >



In (2.23), imperfective is defined in a standard sense, viz. as referring to a situation in its temporal development (describing the 'internal structure of an event' (Comrie 1976)). Notice that this 'standard' postulates a positive semantics for the imperfective. This is terminologically incompatible with Slavicist assumptions that the imperfective is semantically unmarked (but see the next section).

From this, the surface functions of the English aspect opposition fall out immediately as soon as we make an additional assumption about the conceptualisation of states. The definition of states (as opposed to dynamic events) is controversial, but there is one observation about states for which we can confidently assume general and universal currency (cf., e.g., Vendler 1967, Mehlig 1980, Jackendoff 1991):

- (2.24) One single point of time can be enough to evaluate whether a certain state holds or does not hold.

By contrast, dynamic situations, e.g., a person running, need more points of time in order to be open for truth evaluation. To borrow a metaphor from Dowty (1979: 16), a state can be judged by a single frame of a movie, whereas a dynamic event requires more than one frame. If one single time point can be enough to evaluate a static world condition (a 'state of affairs'), this means that the over-all time structure of this world condition can be irrelevant.

Notice that (2.24) is a claim about how we cognitively approach states. It is not a definition of linguistic state predicates. Linguistically, states can have temporal structure or not and they can be limited or not. Attempts at defining states by the absence of limits (e.g., Chung & Timberlake 1985, Breu 1994) or by temporal structure at all (Vendler 1967, Jackendoff 1996), are contradicted by many examples in the preceding sections (e.g., (2.7) or (2.12)). The principle in (2.24) only predicts that temporal structure and limitation are often **not at issue** with states.

From the Sufficiency Principle ('Make your contribution as informative as required!') as applied to the scale <IMPERFECTIVE,  $\emptyset$ > it follows that whenever the speaker has adequate evidence for using the imperfective he should do so. Because of the principle in (2.24), however, this has different consequences for dynamic and static situations:

If a situation is dynamic, adequate evidence about the situation presumes evidence about its temporal development over more than a single point of time (so that you can judge whether, e.g., somebody is cooking rice or just standing in the kitchen). Whenever this evidence is given, the imperfective is required for cooperative behaviour. If the imperfective is not used, this implicates — by virtue of the Minimisation Principle ('Don't make your contribution more informative than required!') — that the event should not be seen as imperfective. There are two possible inferences from a non-

imperfective interpretation. One option is to take the simple form to have perfective value. This is the reading of a simple form in narrative sequences (*He woke up at four and immediately went to see his friend* etc.). Alternatively, the non-use of an imperfective implicates that the speaker describes a state-like situation whose temporal articulation is not at issue. This is the habitual or generic reading of a proposition like *he smokes*.

If a situation is static a speaker can have enough evidence about the situation without knowing anything about its temporal structure and development. To assess a temperature, a single 'flash of consciousness' may be enough. Therefore, an aspectual choice which is neutral to time structure, to wit, the zero form, is perfectly sufficient for describing a state. If somebody uses the imperfective, the hearer is entitled — by virtue of the Sufficiency Principle — to suppose that the speaker does have evidence about temporal constituency. This explains the various effects that *be...V-ing* has on static predicates. As observed above, such constructions often suggest 'temporary validity' (e.g., *he is believing in ghosts*) or 'agency' (e.g., *he is being silly*). Both implicatures are based on the supposition of temporal articulation, the former by adding a time restriction, the second by likening the situation to a dynamic event.

Contextual cues often help establish a temporal articulacy of states and state-like iterations. We have already encountered time adverbials like *at that time* (2.2: *At that time, I was working the night shift*), *these days* (2.6: *John is resembling his great-uncle these days*), or *always* (2.11: *You are always bothering me*), all qualifying the course of time for which an iteration is described. Another frequent means to introduce aspectual quality and thus to allow imperfective marking is the particle *still*. In (2.25), the speaker asks his colleague whether she still participates in the weekly meetings of the local choir.

(2.25) Are you still singing?

Another way of preparing, as it were, a state for aspectual evaluation are adverbial constructions that suggest the iteration of an experience changing gradually over time. Under such conditions, even predicates like *to seem* and *to know*, which were mentioned as incompatible with the *-ing* form, appear in the imperfective.

- (2.26) a. These examples are gradually seeming less and less unacceptable to me.  
 b. John is knowing the answer more and more often this semester.

It is not atypical for such marked contexts that native speaker intuitions vary: one speaker, Smith (1983: 498), quotes (2.26) as grammatical sentences, whereas another one, Comrie (1976: 39), rejects an example parallel to (2.26b), viz. *\*I find that I am knowing more about quantum mechanics with each day that passes*.

Yet another context that allows better aspectual evaluation of states is the perfect. Insofar as this form relates a past event to the present time, it brings with it temporal structure. This is why even predicates like *to own* or *to want*, which do not take the imperfective in other contexts (*\*He is owning a car, \*I am wanting to talk to you*), felicitously occur in this form in (2.27).

- (2.27) a. He has been owning this car since 1955.  
 b. I have been wanting to talk to you. <Smith 1983: 498>

Any attempt to grammatically exclude the imperfective from state predicates runs into severe difficulties with examples like (2.27). The restriction is defeasible, a property that contradicts the very idea of a grammatical rule. A pragmatic account along the lines sketched above avoids such difficulties in a principled way. However, there is still one unexplained issue.

On the present account, it should be possible that even predicates like *to belong* can occur in the imperfective if there are strong contextual clues about temporal articulation. Yet a proposition like (2.28) sounds definitely odd, despite the similarity in meaning with (2.27a).

- (2.28) \* This car has been belonging to John since 1955.

This is probably the point where Aktionsart comes into play. Notice that the predicates which resist the imperfective under all circumstances are a lexically defined, idiosyncratic group (also cf. Comrie 1976). One way to deal with predicates like *to belong*, *to contain* or *to matter* would be to assume that they do not have a static Aktionsart, or, indeed, no time structure at all. Therefore, there is nothing that aspect markers could operate on, even if it would make sense pragmatically. This is not a conclusive explanation, of course, as long as there is no independent motivation for the putative absence of temporal Aktionsart. However, the lexical nature of the phenomenon lends some plausibility to the assumption.

One major problem in English aspectology discussed above was that the simple form cannot refer to currently ongoing events. This restriction is now explained by Quantity Maxim implicatures. Because in the translation of (2.21: *Il abat un arbre*), the imperfective can be used, use of the simple form would implicate — by the Minimisation Principle — a non-imperfective reading. Now, in French too, there is an alternative form that explicitly refers to an event in progress (*mutatis mutandis*, the same holds for German *am V sein*):

- (2.29) Il est en train d'abattre un arbre.  
He is cutting down a tree.

Unlike English *be...V-ing*, the existence of a progressive in French (or German) does not implicate a restriction of the zero-form from events in progress. How does this difference come about?

The difference between the two language systems has sometimes been explained in terms of degrees of grammaticalisation. In this context, the crucial parameter of grammaticalisation is semantic bleaching (cf. Lehmann 1982): the French progressive is semantically narrower than the English imperfective insofar as the progressive is excluded from states and iterations. Stated positively, the progressive can select or highlight only dynamic phases. This semantic difference is crucial for the pragmatics of the French and English system although both are structured in the same way, to wit, by Horn-scales. In French (or German), the scale is as in (2.30).

- (2.30) Progressive field: <PROGRESSIVE,  $\emptyset$ >

The scale predicts that use of the zero form implicates a non-progressive interpretation. This is unlike English where the simple form implicates a non-imperfective reading. The most important effect of this difference between 'non-progressive' and 'non-imperfective' is that a non-progressive reading may still be interpreted as imperfective. The only value that is pragmatically excluded is the notion of a *dynamic* event in progress at the time of reference, for it is this feature that is pre-empted by the progressive. If dynamism is backgrounded (aspectually not selected), the event can be taken as developing at the moment of reference. The implicature of a zero-form in such a situation (e.g., (2.21): *Il abat un arbre*) is that the speaker wants to abstract from the dynamic nature of the situation, and in fact from all ideas about the event's temporal articulacy. But this is different from denying that the event is developing or going on at the moment of reference.

## 2.4 The denotative function (*obščefaktičeskoe značenie*)

It is received aspectological wisdom that the modern Slavic aspect opposition as in Russian or Czech is privative rather than equipollent (e.g., Jakobson 1932, Meillet 1934, Forsyth 1970, Johanson 1971, Maslov 1974, Comrie 1976, etc.). The 'imperfective' is semantically neutral or unmarked and can have both an imperfective and a perfective meaning. The crucial evidence for this claim is the use of the imperfective form in what has come to be called the denotative or constative function (in Russian, *obščefaktičeskoe značenie* 'general-factual meaning' or *konstatacija fakta dejstvija* 'denotation of the fact of an event'). A Russian question like (2.31) does not inquire about the peculiarities of your reading. In particular it does not inquire about whether you have finished the book. Such an intention would need to be cast in a perfective form (Comrie 1976: 113).

- (2.31) Vy čitali            'Vojnu i Mir'?  
 2p read:IPFV:PT:p war:ACC and peace:ACC  
 Did you read *War and Peace*?

The 'imperfective' in denotative use simply refers to a past fact, it does not specify any aspectual quality. This is also evidenced by the fact that a Russian 'imperfective' occasionally has a reading that is, intuitively speaking, more 'perfective' than its perfective counterpart. Maslov (1974: 114) illustrates this with the minimal pair in (2.32).

- (2.32) a. K vam            prišodil            znakomyj.  
 to you<sup>P</sup>:DAT come:IPFV:PT acquaintance:NOMsM  
 An acquaintance came along. (imperfective)
- b. K vam            prišel            znakomyj.  
 to you<sup>P</sup>:DAT come:PFV:PT acquaintance:NOMsM  
 An acquaintance came along. (perfective)

In opposition to (2.32b), the denotatively used 'imperfective' in (2.32a) normally implicates that the event is fully terminated, i.e., that the person is off again. In Maslov's words, "bisweilen [hat das imperfektive *prišodil*] die Bedeutung von zwei antonymen perfektiven Formen *prišel* + *ušel*" (p. 114). By contrast, the perfective in (2.32b) specifies that the event *prijti* 'to come' has reached its goal. It follows that the subject is still at this place.

This distribution suggests that the Russian aspect opposition makes up a Horn-scale with a marked perfective and a zero form (the so-called 'imperfective').

(2.33) Perfective field: <PERFECTIVE,  $\emptyset$ >

Notice that, as argued by Gazdar (1979: 56f) and Atlas & Levinson (1981), Horn-scales are defined over semantic, not morphological or phonological representations. The Russian zero-form ('imperfective') is semantically unmarked (German *merkmellos*). But it is not necessarily unmarked in the sense of having less morphemes (German *unmarkiert*): besides aspectual form pairs like *pisat'* ('ipfv') vs. *napisat'* ('pfv') 'to write', there are forms where the imperfective is morphologically more complex than the perfective: *otkryvat'* ('ipfv') vs. *otkryt'* ('pfv') 'to open', or ablaut pairs like *otvečat'* ('ipfv') vs. *otvetit'* ('pfv') 'to answer' (cf. Forsyth 1970).

The Horn-scale in (2.33) predicts that the zero form has usually an imperfective value but that specific contexts can cancel this implicature. The most typical instance of such a context is characterised by the denotative use. This function is not a necessary, let alone diagnostic, feature of the imperfective, and we have to reckon with the possibility of true imperfectives with a positive semantics of their own. (The term 'im-perfective' may not be ideal though, for it suggests a privative opposition). An instance is English and — as we will see — Belhare, but the hypothesis has been demonstrated already in Johanson's (1971) seminal analysis of Turkish aspect and its difference from other aspect systems.

The Turkish imperfective in *-iyor* is sometimes misidentified as a progressive, but the frequent use with states (2.35a) and generic situations (2.35b) dispels this hypothesis (Johanson 1971).

- (2.34) a. o, profesör-den ve imtihan-dan kork-uyor-du. <op. cit. 217>  
 3 professor-ABL and exam-ABL be.afraid-IPFV-PT  
 He was afraid of the professor and the exam.
- b. Karasu Erzurum-un yakın-1-ndan geç-iyor. <op.cit. 164>  
 K. E.-GEN near-3POSS-ABL go-IPFV  
 The Black River passes near Erzurum.

Much as in English,<sup>1</sup> the imperfective forms a Horn-scale with a zero form, which is commonly interpreted as perfective. Whereas the imperfective *yapıyordu* 'he was writing' in (2.35) suggests an *Inzidenzschema* ('scheme of inclusion of an incident'), as aspectologists call it, the aspectually unmarked form *yaptı* 'he wrote' would implicate a sequence 'We talked...and then what did Gülten do suddenly at that moment?' (Johanson 1971: 110).

<sup>1</sup>The Turkish aspect system is very different from English insofar as there is yet another 'imperfective' marker: the so-called 'aorist' in *-Ir*, which is restricted to generic or static, and iterative situations. The presence of this morpheme pre-empts the use of the zero-form in many contexts where English would use it.

- (2.35) ...saadet-ten şeref-ten ve çılgınlık-tan bahset-ti-k. —  
 luck-ABL sublimity-ABL and craziness-ABL talk-PT-1p  
 Acaba o an-da Gülten ne yap-ıyor-du?  
 PTCL that moment-LOC G. what do-IPFV-PT  
 ...we talked about luck, sublimity and craziness. —  
 But what was Gülten doing at that moment?

Since the zero form is semantically unmarked, it can also refer to states. The zero form *korktu* of a predicate like *korkmak* 'to get/be afraid', which combines an initial boundary and a state into a single ingressive-stative Aktionsart (cf. above), can mean both 'he was afraid' and 'he got afraid'. In other words, the zero-form can have a perfective value (in the sense discussed in the preceding section), but need not. The unmarked nature of the form also makes it amenable to use in a 'denotative' (*obščefaktičeskoe*) context. In cases where Russian uses the 'imperfective' (2.36a), Turkish requires the zero form (2.36b):

- (2.36) a. Ty čital étu knigu?  
 2s read:IPFV:PT this book:ACC  
 b. Bu kitab-ı oku-du-n mu?  
 this book-ACC read-PT-2s Q  
 Did you read this book?

The Imperfective *ok-uyor mu-ydu-n* [read-IPFV Q-PT-2s] would suggest incompleteness: 'Were you reading the book [...when X happened]?' (Johanson 1971: 99f). This has often confused Turkish aspect research, especially in Soviet Turkology (see *op.cit.* for a review). Matters are straightforward, however, if we acknowledge the difference in markedness structure. In denotative contexts, both languages use the same form, viz. the semantically less marked zero form ('∅').

- (2.37) a. Russian: <PERFECTIVE, ∅>  
 b. Turkish: <IMPERFECTIVE, ∅>

The denotative function is neither perfective nor imperfective: the mere denotation (or questioning) of a fact is beyond the difference between perfectivity and imperfectivity. In (2.36a) the 'imperfective' denotative does not imply incompleteness and in (2.36b) the 'perfective' denotative does not imply completion. Even if syntagmatically close to an imperfective, the Turkish 'perfective' can be purely denotative, i.e., need not indicate an incidental moment against a given background. This is illustrated by (2.39), discussed by Johanson (1971: 117).

- (2.38) Bu vakt-e kadar ne yap-ıyordun? — İş ara-dım.  
 this time-DAT until what do-IPFV-PT-2s work look.for-PT-1s  
 What have you been doing up to now? — I have been looking for work.

Similar observations can be made for Ancient Greek, where the so-called ‘aorist’ covers, like the Turkish zero-form, sequential taxis in narratives, but is also used for aspectually neutral statements (also cf. Cohen 1989 for similar Semitic data):

- (2.39) egō állēn mēn arkhēn oudemían ērkasa,  
 1s other:ACCs PTCL position never rule:1sAORIST  
 eboúleusa dé. <Plato, *Apol.* 32a>  
 counsel:1sAORIST PTCL  
 I have never held another position, I was just councillor.

The claim that the denotative function is not an aspectual value essential to the imperfective is corroborated by yet another observation. There are languages where the function is carried out by a completely different system. Such is the case in Belhare and many other Sino-Tibetan languages (e.g., Lahu, Newar, Limbu; see Bickel 1995c). In Belhare, the denotative function can be explicitly signalled by nominalising a clause. The addition of the nominality marker *-(k)ha(k)* in (2.40) marks the event as ‘a matter of fact’, not unlike to the addition of *it is the case* clause in English (cf. Matisoff 1972, Kölver 1977, van Driem 1993a). Notice that there is no aspect marker in the nominal clause. The example is an independent (non-embedded) utterance produced in response to somebody being astonished by the fact that the speaker looks so tired.

- (2.40) hamba Dhankuta khar-a-ŋŋ-ha, rak-khar-e-ŋa, ŋka! <G4.29b>  
 today Dh. go-SUBJ-e-N tired-TEL-PT-e 1s  
 I went to Dhankuta today. [That’s why] I got tired!

The construction in (2.40) is part of a broader device that serves focalisation of individual constituents or whole propositions. This is further discussed in Bickel (1995c). What is crucial for present purposes is that in such constructions the aspectual quality of the event is of no concern. The situation is presented as such, without specifying its internal structure.



## Chapter 3

### **Verb morphology and phonological alternations**

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The aim of this chapter is to give an overview of the morphology and morphophonology of mood, aspect, and tense in Belhare. Because the categories are marked on the verb together with other inflections, this requires some inspection of verb morphology as a whole, and since the verb inflection undergoes many complex morphophonological rules, we also need to go into the intricacies of Belhare phonology to some degree. I will keep the exposition down to the minimum required for an understanding of how the morphemes marking mood, aspect, and tense are realised under different conditions.<sup>1</sup> Where theoretical assumptions are called upon, I have adopted the framework of Lexical Phonology with the representational machinery of autosegmental theory (Goldsmith 1991). For some aspects of morphophonology, I rely on an optimality-theoretic version of Prosodic Morphology (McCarthy & Prince 1993a, 1993b).

In the first section (3.1), I present a brief overview of the morphemes that occur in Belhare verbs. Section 3.2 introduces the fundamentals of segmental phonology and section 3.3, the fundamentals of prosodic structure. This provides the necessary background for the remainder of the chapter where I first discuss various rules of the lexical phonology, viz. cyclic voicing and vowel corruption in section 3.4, and prosodic morpheme-alignment in sections 3.5 and 3.6. The last two sections deal with an important pattern of verb stem alternations triggered by specific tense markers (section 3.7) and with affix allomorphy (3.8).

#### **3.1 Overview of verb morphology**

The Belhare verb stem can be preceded by up to three prefixes and followed by up to ten suffixes expressing agreement, negation, mood, tense, and aspect. Table 3.1 is a condensed representation of the affix slots postulated on the grounds of linear sequence and co-occurrence. The category labels are rough and ready identifiers used only for practical convenience. They are not meant as strict constraints on slot filler semantics, although they do capture significant tendencies.

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<sup>1</sup> See Bickel (forthcoming) for a further treatment of Belhare morphophonology.

pf1	pf2	pf3	$\Sigma$	$\Sigma 2-5$	sf1	sf2	sf3-5	sf6	sf7-9	sf10
PNR	OPT	PNR	stem	stem	Aspect	Mood	PNR	NEG	PNR	NOM
		NEG		AA		Tense				

*Table 3.1: Verbal affix slots*

The slot positions sf3 through sf10 and the prefix slots include the markers for person, number, and role (abbreviated as 'PNR'), as well as for optative ('OPT') mood, negation ('NEG') and nominalisation ('NOM'). Paradigms showing these markers in combination with various mood and tense markers are reproduced in Appendix A, together with a summary of the PNR morpheme analysis. The category 'optative' is realised by the prefix *ak-*. This morpheme is not only morphotactically but also semantically part of the agreement rather than the mood inflection system. Its semantics is described in Bickel (1995a: 109 – 13) and will not be dealt with in the present study. Negation is marked in both a prefix and a suffix position. Whereas the suffix (*-ni*) in slot sf6 is always present in negative forms, the negative prefix (*N-*) in slot pf3 appears only in 'non-inverse' participant scenarios with an actor of higher or equal empathy than the undergoer (i.e., in 1>2, 1>3, 2>3 and 3>3 scenarios; see *op. cit.* for discussion). The morpheme analysis of the prefix fillers and the exponents of suffix slots sf3 to sf9 have been explained elsewhere (*op. cit.*). The final slot, sf10, is reserved for morphemes playing a role in the verb's 'external relations'. The slot can be filled by two exponents with nominalising force ('NOM'). One is the nominaliser *-khak*, which is used for relative and complement clauses and also for focus constructions (see Bickel 1995c). The other is the article *-na*, which is used in relative clauses with a head of specific reference. In addition to the morphemes in slot positions sf1 through sf10, verbal forms can be marked by series of clitics.

The stem can be composed of up to five morphemes involving lexical roots as much as Aktionsart ('AA') specifiers. Lexical roots and Aktionsart specifiers behave morphologically alike and I use the notion 'stem' ( $\Sigma$ ) to refer to any simple or complex, lexical or derivational filler of  $\Sigma 1 - \Sigma 5$ .

The aspect and mood morphemes in slots sf1 and sf2 are summarised in Table 3.2. Some morphemes appear in either of the two slots, while other affixes realise both slots at once and cannot combine with any other aspect or mood affix. The cells are arranged so as to predict which affixes can co-occur and which cannot. Thus, the table predicts that there is no definitive-imperfective combination *\*-yuk-yakt* or *\*-yak-yukt* or a temporary imperative *\*cokghetta* 'be doing it!'. But there is, for instance, an imperfective non-past form *cog-yau-t-u* 'he is doing it' or an imperfective imperative *cog-yakt-a!* 'keep doing it!'. Fillers of sf1 and sf2 combine with each other if and only if their cells are adjacent. Therefore, only the imperfective co-occurs with both past and non-past

forms, and the non-past marker co-occurs only with the definitive and imperfective markers. The temporary and inceptive markers are inherently specified for present time reference. These features of the system are crucial for an understanding of Belhare aspectology and will be discussed in Chapters 4 through 6.

sf1	sf2
-yuk DEFINITIVE (DEF)	-t ~ -yuk NON-PAST INDICATIVE (NPT)
-yakt ~ -yau ~ -ya IMPERFECTIVE (IPFV)	-he PAST INDICATIVE (PT) -a PAST SUBJUNCTIVE (SUBJ) -att PAST NEGATIVE (PT) -a ~ -an [in plural affirmative forms] IMPERATIVE (IMP) -ma CITATION form (CIT)
	-hett TEMPORARY (TEMP)
	-kett INCEPTIVE (INC)
	-kon SPATIALLY DISTRIBUTED TEMPORARY (SDT)
	-kone INCONSEQUENTIAL (INCONS)
	-ŋe ~ -se [in transitives] ~ -ŋatt [in negative forms] R-PERFECT (RP)
	-ŋa...-khak ~ -sa...-khak [in transitives] ~ -ŋatt ...-khak [in negative forms] PERFECT (PERF)

*Table 3.2: Aspect and mood/tense morphology*

The morphemes in Table 3.2 combine with regular person, number and role inflections except for the imperative and the citation form. The imperative is restricted to the second person and has a special allomorph for second person plural in non-negative forms. The citation form is almost non-finite but obligatorily registers agreement with a non-singular undergoer, e.g., *hitma* ‘to look at him/her/it’ vs. *hitmachi* ‘to look at them’. This means that the imperative and the citation form do not exactly fit into the overall verb inflection system portrayed in Table 3.1. I have included the forms here because they can be marked with the imperfective morpheme *-yakt* (e.g., *hi?yaktu!* ‘keep looking at him!’ and *hi?yakma* ‘to be looking’). These forms are important to consider when studying the nature of Belhare aspect categories in Chapters 5 through 8.

Apart from the citation form, there are three other nonfinite forms: a supine in *-si* indicating purpose, an affirmative converb in *-sa* signalling subject and tense coreference, and a negative converb with *miN-*. In addition, bare roots appear as complements of auxiliary verbs indicating causation (*mett-*) and potentiality (*tett-*).

### 3.2 Preliminaries: phonemes and distinctive features

Table 3.3 summarises the taxonomic phoneme inventory in Belhare. Due to syllable structure constraints to be discussed in the next section, most consonant phonemes are found only in the onset; the coda only allows the plain stops /p, t, k, ʔ/ and the nasals /m, n, ŋ/ as distinctive segments.<sup>1</sup> Nasalised vowels are restricted to the offglide of diphthongs.

Consonants					Vowels			
k	kh	g	(gh)	ŋ	i	ĩ	ũ	u
t	th	d	(dh)	n	Vi	Vĩ	Vũ	Vu
c	ch	(j)	(jh)		e	(ʌ)	o	
p	ph	b	(bh)	m		a		
ʔ	h	l	r	s				

*Table 3.3: Belhare phoneme chart (NB: <c> stands for [ts] and <j> for [dʒ])*

In Table 3.3, phonemes that occur only in loanwords (mostly from Nepali) appear in brackets. In the pronunciation of some erudite speakers, dental stops of Nepali loanwords are preserved. In less sophisticated speech, the Nepali dental sounds are pronounced the same way as the regular postalveolars. The breathy voiced stops [g<sup>h</sup>], [d<sup>h</sup>] and [b<sup>h</sup>] — but not [dʒ<sup>h</sup>] — not only occur in loanwords but also as regular allophones of aspirated voiceless stops between sonorants, e.g., [ʔang<sup>h</sup>ɛk<sup>h</sup>] ‘head’, [ʔind<sup>h</sup>ɛ] ‘it layed an egg’, [dab<sup>h</sup>ɛk<sup>h</sup>] ‘sickle’ (but [tsetse] ‘meat’).<sup>2</sup>

The orthographic sequence of a consonant plus <h> indicates aspiration or breathiness. All vowels except /a/ and the borrowed /ʌ/ in general have a lower quality in closed syllables, i.e., /i/ is realised in this position mostly as [ɪ], /u/ as [ʊ], /e/ as [ɛ] and /o/ as [ɔ]. In syllabification, the closed vowels /i/ and /u/ often function as onsets, in which case they are realised as glides (see below). Stops are generally voiced before laterals, while other voicing effects are restricted to specific environments to be discussed in Section 3.4. The stops of the coronal series including /t/ are realised with a postalveolar tongue position; /t/ dissimilates to [ʔ] before a subphonemic coronal glide (on which see Section 3.3) and has a secondary glottal release articulation before /l/. All stops, whether

<sup>1</sup> Final /s/ also occurs, but only in loanwords or as the result of post-lexical assimilation (cf. example (3.1) below).

<sup>2</sup> The breathy coronal stop is phonemic in one native word, viz., *dhupma* ‘flatten’. The voicing is probably due to analogy with *mun dhupma* ‘mouth flatten’, a frequent collocation meaning ‘chat, talk’, where original \*/th/ assimilated in voicing to the preceding nasal.

voiced or voiceless, are unreleased in syllable-final position, e.g., [tak̚] ‘friend’, [‘wats̚let̚] ‘little chicken’, [‘tag̚-lam̚] ‘via a friend’.

What is written as <c> and <j> are the mono-phonemic affricates /ts/ and /dʒ/, respectively.<sup>1</sup> The sounds cannot be broken down into stop+continuant sequences. This is trivially evident for the loan phoneme /dʒ/, since, just as in Nepali, there is no /z/ in Belhare. As for /ts/, decomposition is unwarranted because the phonotactics of the language does not allow derived combinations of /t/ and /s/. When a /t/-final morpheme combines with an /s/-initial morpheme, the stop assimilates and appears as a sibilant (3.1a). A similar coronal assimilation pattern can be observed with nasals before laterals (3.1b).<sup>2</sup>

- (3.1) a. {set-si} → /sessi/  
 kill-SUP  
 in order to kill
- b. {hen-leŋ} → /hellenj/  
 where-DIR  
 where to?

The native phonemes in Table 3.3 are best broken down into the following feature matrix, which is justified by the phonological alternations that will be discussed in the remainder of this chapter. Since the [+spread glottis] (or ‘[+aspirated]’), [+voiced], and [+nasal] series are trivial variants of the plain stop series /k, t, p/, they are not included in the following table. Following Clements & Hume (1995), I treat place specifications as unary features (marked by a dot), standing in equipollent opposition with one another.

	k	t	c	p	ʔ	h	r	s	l		i	e	a	o	u
dorsal	•									dorsal				•	•
coronal		•					•			coronal	•	•			
distributed			+					+		closed	+				+
labial				•											
lateral									+						
continuant						+	+	+							

*Table 3.4: Distinctive feature analysis (without [+nasal], [+spread gl.] and [+voiced])*

<sup>1</sup> To avoid confusion, I write IPA [j] as <y> even in phonetic transcription. For a summary of spelling conventions, see Appendix B.

<sup>2</sup> Where the distinction is at issue, I enclose morphological representations in curly brackets and phonological forms in slashes. Forms without marking are in the practical orthography.

### 3.3 Words and prosodic structure

Belhare grammar operates with three distinct notions of 'word', one defined by prosody, one by morphology, and one by syntax. The prosodic (or 'phonological') word is smaller than the morphological word, which in turn is often smaller than what counts as a minimal word in syntax.

Verbal syntactic words are split into morphologically independent units, i.e., into distinct morphological words, if their stems have more than one syllable.<sup>1</sup> This is illustrated in (3.2a), where the first syllable hosts an enclitic meaning 'also, too, even'. In (3.2b) the second stem syllable *niu* is inflected as if it were the complete word itself. Neither *la* nor *misen* have a (synchronically) transparent meaning of their own.

- (3.2) a. *la-cha u-he.*  
 dance-ADD dance-PT  
 And he danced, too.
- b. *misen ka-niu-?-ni.*  
 know iU-know-NPT-NEG  
 He doesn't know us.

In many cases, these discontinuous stems probably go back historically to noun+verb constructions (e.g., 'dance a dance' in (3.2a)), but the etymologies would need detailed comparative research. In the nominal domain, polysyllabic syntactic words are morphologically integer (e.g., *yakcubi* 'yams', *tanghimarj* 'fermented soy beans [Nep. *kinemā*]').

The boundaries of a prosodic word are relevant for stress assignment and syllable distribution. I first discuss stress assignment. Main stress — which is not very prominent — usually falls on the first syllable of a prosodic word (3.3a). Exceptional stress patterns (3.3b) probably result from polymorphemic composition. (Syllable boundaries are marked by full stops.)

- (3.3) a. ['wa.ma.ra] 'chicken', ['wa.lap.cuk] 'butterfly', etc.
- b. [a.'sam.ba] 'last night', [ya.'ha?.wa] 'rice paddy', etc.

<sup>1</sup> The only exception I know of is *noīsi-* 'to be ashamed', which historically is a Verb+Aspectivizer sequence. Ambiguous cases are *wayuk-* ~ *wa yuk-* 'to get wet' and *talokt-* ~ *ta lokt-* 'begin'. The former is sometimes inflected as one word, e.g., *akwayuk* 's/he may get wet', sometimes as two: *wa akyuk* 's/he may get wet'. Similarly, the verb for 'begin' is sometimes inflected on *lokt-* (e.g., *ta nlokthe* 'they began'), sometimes on *talokt-* (e.g., *ntalokthe* 'they began').

Secondary stress follows a trochaic pattern, but is banned from word-final syllables. Thus, only words with more than three syllables show secondary stress ('PrWd' labels prosodic words; 'Ft' stands for 'foot'):

- (3.4) [<sub>PrWd</sub>(<sub>Ft</sub>'lu.rhe)(<sub>Ft</sub>,chim.ma)]  
 {lu+t-he-m-chi-m-Na}  
 tell+AUG-PT-3U-nsU-1pA-e  
 We<sup>pe</sup> told them.

Notice that Belhare trochees are syllabic rather than moraic; syllable weight is irrelevant for stress assignment in (3.3) and in (3.4).

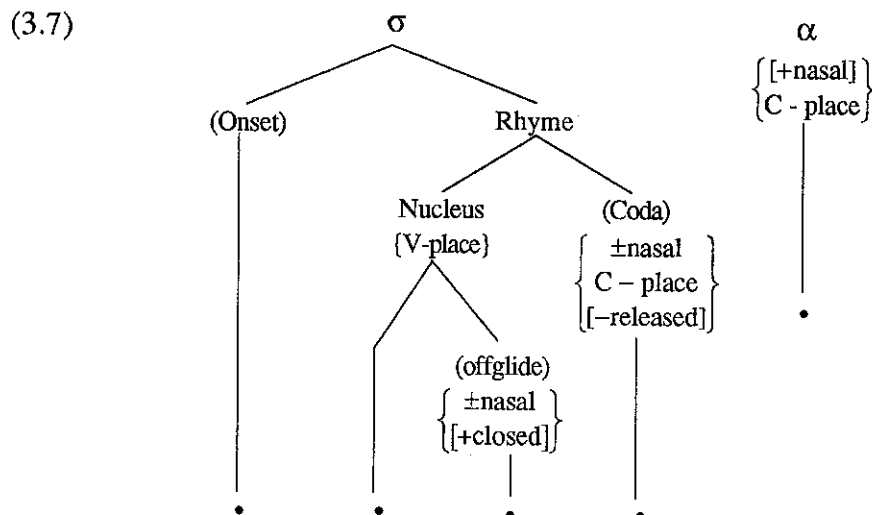
The prosodic word need not coincide with the morphological word. Rather, the left edge of the prosodic word aligns with the left edge of the morphological base or stem. Prefixes are left unfooted (3.5a) or are integrated into a preceding word (3.5b). Notice that nasal-only prefixes are realised as syllabic nasals in utterance-initial position (3.5b). (Angled brackets mark unfooted material.)

- (3.5) a. <ka>[<sub>PrWd</sub>(<sub>Ft</sub>'lu.ba)]  
 {ka-lu+t-pa}  
 SUBJ.N-tell+AUG-M  
 one who tells/told him/her
- b. <ɱ>[<sub>PrWd</sub>(<sub>Ft</sub>'phe.aj)] [<sub>PrWd</sub>(<sub>Ft</sub>'khok.pi) (<sub>Ft</sub>,reĩ.sak)<kha>] [<sub>PrWd</sub>'?i]  
 {N-pheak N-khok+t-pi+t-ten+t-sa-k-khak i?}  
 2POSS-hair 3A-cut+AUG-U.BEN+AUG-TEL+AUG-TR.PERF-2-PERF Q  
 Did they give you a hair cut?

However, if the alignment of stem and prosodic word boundary would result in an end-stressed word, the word boundary is shifted to the left and the prefix comes to bear the main stress (3.6a) (cf. again the constraint against final stress mentioned above). In any other case, the word boundary aligns with the stem (3.6b)

- (3.6) a. {u-hop} → [(?'u.hop)], not \*<?u>['hop]  
 3POSS-gourd  
 'its gourd'
- b. {u-hop-chi} → <?u>[(?'hop.chi)]  
 3POSS-gourd-ns  
 'its gourds'

Words are built up by syllables satisfying either of two segmental licensing patterns that account for the phonemes surveyed in Table 3.1 and 3.2. These patterns are detailed in (3.7), using the representational format proposed by Goldsmith (1991). 'σ' represents a syllable in any position, 'α' a syllable prefixed to a prosodic word (e.g., <ɱ>in (3.5b)).



The syllable root σ licenses all features available in Belhare, i.e., the features represented in Table 3.4 plus the [nasal], [spread glottis] and [voiced] features that were left out in the table. Other nodes license subsets of these features, as specified in curly brackets in (3.7). The C-place node in the coda licenses only the primary place of articulation features [dorsal], [coronal], and [labial], but not [distributed], which is not a direct daughter of the C-place in feature geometry; cf. Clements & Hume 1995)

While onset and coda are normally optional, onsets are required word-initially. This effects epenthesis of a glottal stop (the default consonant according to Table 3.4) if vowel-initial melodies appear initially in a prosodic word. (Epenthetic segments are marked by outline font.)

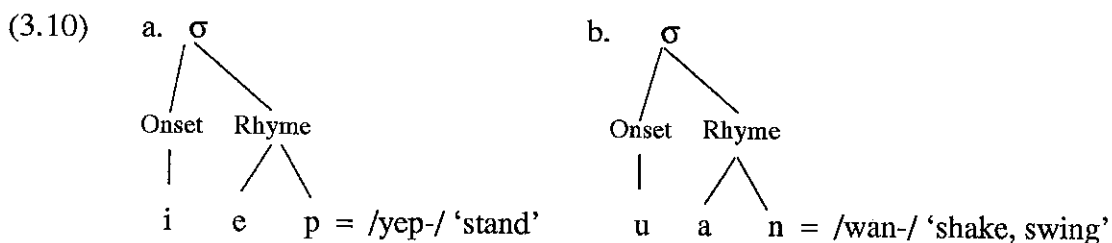
- (3.8) a. {uk+t-ma} → [<sub>PrWd</sub>ʔuk.ma] 'to bring down'  
bring.down+AUG-CIT
- b. {ka-uk+t-pa} → <ka>[<sub>PrWd</sub>ʔuk.pa] 'he who brings down'  
N.SUBJ-bring.down+AUG-MASC

In word-internal position, the onset requirement is not observed and hiatus is not dissolved:

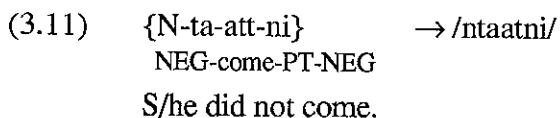
- (3.9) {u-uk+t-he} → [<sub>PrWd</sub>ʔu.uk.the], not \*[<sub>PrWd</sub>ʔu.ʔuk.the]  
fry-bring+AUG-PT  
She fried it and brought it down.



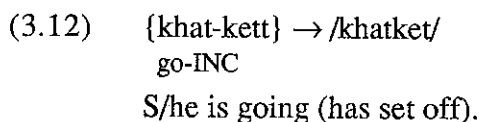
Another way of satisfying the onset requirement in word-initial position is by syllabifying /i/ or /u/ as glides (which are written as such in the practical orthography):



The constraints on syllable structure in (3.7) have frequent effects in terms of extra-syllabic consonant reduction. Consider, for example, the negative past marker *-att*. Because /...attC.../ cannot be syllabified, this morpheme loses its final /t/ before another consonant:



The same effect of the syllable canon is highly prominent also at word boundaries, especially with the temporary or inceptive markers ending in /t/:



In allegro speech, there is a strong tendency to open syllables at the boundaries of polysyllabic words, i.e., the coda position is available only in non-final syllables. Thus, a form like the one in (3.12) actually surfaces mostly as /khatke/. The tendency is not restricted to some morphological or lexical environment and affects suffixes and stems alike: stems like /dabhek/ 'sickle' are frequently realised as /dabhe/, word forms like /tayuk/ 'he comes (non-past)' as /tayu/. Monosyllabic words do not show this tendency, so that words like /tak/ 'friend' are never reduced to \*/ta/.

### 3.4 Cyclic phonology

Belhare morphophonology is best understood in terms of Lexical Phonology Theory (also cf. Bickel, forthcoming). After each cycle (or 'level') of morphological combination, there is a 'mini-phonology' that fills in redundant feature specification and the form needs to satisfy the general constraints discussed in the preceding sections. In addition, there are specific constraints that structure the shape of word forms after morphological derivation. Three of them, VOICING, VOWEL CORRUPTION and GLIDE INSERTION, are essential for verb morphology.

The spell-out of underspecified segments after each cycle means, among other things, that vowels and nasals are assigned the redundant [+voiced] feature. This is the basis on which the following constraint applies.

$$(3.13) \quad \text{CYCLIC VOICING: } \begin{array}{c} \{V\} \\ \{N\} \end{array} C V \\ \quad \quad \quad | \quad \quad \quad / \\ \quad \quad \quad [+voiced]$$

That is, whenever the suffixation of a morpheme results in a VCV or NCV sequence, the consonant is voiced:

- (3.14) a. {khi-ta-he} → /khidahe/  
           quarrel-come-PT  
           S/he came to quarrel.
- b. {khim-taŋ} → /khimdaŋ/  
           house-UP  
           up there at the house
- c. {khi-thaŋs-e} → /khidhaŋse/  
           quarrel-upwards-PT  
           S/he quarrelled with somebody standing further uphill.
- d. {lap-u} → /labu/  
           catch-3U  
           Catch it!

There are two exceptions to the rule in (3.13). For one thing, stem-final /t/ is not only voiced but also assimilates in the feature [+continuant] after a vowel. Instead of the expected form \*/sadu/, a coronal continuant substitutes for /t/ in the following example:

- (3.15) {sat-u} → /saru/  
 take.out-3U  
 Take it out!

This contrasts with the behaviour of /t/ in other positions, as illustrated in (3.14a) and (3.14b). The second exception to (3.13) is the behaviour of /kh/. If followed by /a/, this obstruent is not voiced but replaced by /h/ (3.16a). If the subsequent vowel is different from /a/, the voicing is regular (3.16b).

- (3.16) a. {nas li-khaiʔ-ŋe} → /nas lih*ai*ʔŋe/  
 destroy become-TEL-INTR.RP  
 It is totally broken.
- b. {nas li-kheũ-ŋe} → /nas ligheũŋe/  
 destroy become-DIMIN-INTR.RP  
 It is broken a bit.

In order to understand the consequences of Cyclic Voicing both in its regular and exceptional form, four things are important to notice.

First, the constraint is bound to a morphological cycle, but not to any specific morpheme or morpheme shape. It is irrelevant whether the morphological string consists of two lexical morphemes as in (3.14a) or whether it is a stem-suffix combination as in (3.14b) and (3.14c). With the exceptional case of stem-final /t/ mentioned before, the constraint is also insensitive to the position of the consonant in the morphemes combined. It may be the initial consonant of the second morpheme as in (3.14a–c) just as well as the final one of the first morpheme as in (3.14d).

Second, the constraint is bound to suffixation. Prefixation never triggers Cyclic Voicing, irrespective of whether there is a prosodic word boundary or not (see the preceding section 3.3):

- (3.17) a. {ka-khat-pa} → <ka>[<sub>PrWd</sub>'khatpa]  
 N.SUBJ-go-M  
 one (male) who goes/went
- b. {u-tak} → [<sub>PrWd</sub>'ʔutak]  
 3POSS-friend  
 his/her friend

Third, the cyclic nature of the constraint prevents it from applying to lexical VCV or NCV sequences. Except for the aspirated series, voicing is fully distinctive in nonderi-

ved environments, which is evidenced by (near-)minimal pairs like /pakma/ 'touch' vs. /bakma/ 'plait', /sati/ 'who' vs. /nari/ 'nose', /ikaa/ 'why' vs. /liga/ 'come in!' or /ntuutu/ 'they make a trap' vs. /nduutu/ 'they fold it'.

Fourth, the constraint in (3.13) applies exactly after each cycle. Thus, if a single morphological derivation does not result in a VCV or NCV structure, the constraint does not hold, irrespective of what the ultimate word form looks like. This is why the suffixation of the non-past marker *-t* does not trigger voicing, although in fully inflected forms the /t/ often ends up in prevocalic position:

- (3.18) a. {soi-t-u} → /soitu/  
           wait-NPT-3U  
           S/he will wait for him/her.
- b. {tim-t-u} → /timtu/  
           press-NPT-3U  
           S/he will press it down.

The second important effect that constrains Belhare word forms is Cyclic Vowel Corruption. In morphological derivation, the dorsal vowel /u/ coalesces with a preceding vowel in several specific ways:

- (3.19) CYCLIC VOWEL CORRUPTION
- a. e+u → e
- b. a+u → u
- c. i+u → u

This is illustrated by the following examples.

- (3.20) a. {lur-he-u-ŋ} → /lurheŋ/  
           tell-PT-3U-1sA  
           I told him/her.
- b. {lui-sa-u-hak} → /luisuha/  
           tell-TR.PERF-3U-N  
           S/he has told him/her.
- c. {lur-he-chi-u-ŋa} → /lurhechuŋa/  
           tell-PT-d-3U-e  
           We<sup>de</sup> told him/her.

Rule (3.19b) has two exceptions. If the sequence /a+u/ is followed by the first or second person plural marker *-m*, it is /u/ rather than /a/ which is deleted. In word-final position and before the suffix *-na* 'topic; article', /a+u/ coalesce into /o/:

- (3.21) a. {ca-u-m} → /cam/  
eat-3U-1pA  
Let's eat it!
- b. {ca-a-u} → /co/  
eat-IMP-3U  
Eat it!
- c. {ca-u-na} → /cona/  
eat-3U-ART  
[the thing] that s/he eats

The effects of the rules in (3.19) are very important because they neutralise the difference between some frequent inflectional forms. The vowel /u/ is the exponent of the morpheme indicating a third person undergoer in a transitive clause (as illustrated in (3.20)). The vowel /e/ is characteristic of the past and r-perfect suffixes. The vowel /a/ occurs in the perfect marker and is the exponent of the subjunctive and imperative markers (cf. Table 3.2). With these suffixes, the rules in (3.19) have the effect that some transitive and intransitive (3.22) and some subjunctive and zero forms (3.23) are neutralised. 'Zero forms' are forms without sf2 filler. They serve, among other things, as the non-past counterpart of past subjunctive forms (see Chapter 4).

- (3.22) a. {ca-he-u} → /cahe/  
eat-PT-3U  
S/he ate it.
- b. {ca-he} → /cahe/  
eat-PT  
S/he ate.
- (3.23) a. {takt-a-u-naa} → /taktunaa/  
receive-SUBJ-3U-TOP  
If/when s/he received it...
- b. {takt-u-naa} → /taktunaa/  
receive-3U-TOP  
If/when s/he receives it...

The morphological difference between these strings can be made explicit in each case by inserting a morpheme between the /e/-final or /a/-final morphemes and the subsequent /u/. Changing the singular number of actors into a dual number has just this effect, and the forms in (3.22) and (3.23) are disambiguated:

- (3.24) a. {N-ca-he-chi-u} → /ncahechu/  
           3ns-eat-PT-d-3U  
           They<sup>d</sup> ate it.
- b. {N-ca-he-chi} → /ncahechi/  
           3ns-eat-PT-d  
           They<sup>d</sup> ate.
- (3.25) a. {N-takt-a-chi-u-naa} → /ntaktachunaa/  
           3ns-receive-SUBJ-d-3U-TOP  
           If/when they<sup>d</sup> received it...
- b. {N-takt-chi-u-naa} → /ntakchunaa/  
           3ns-receive-d-3U-TOP  
           If/when they<sup>d</sup> receive it...

Notice that Vowel Corruption, just as Voicing, is bound to cyclic morphology. The constraint does not hold within morphemes. Diphthongs ending in /u/ are attested in Belhare, and are even characteristic of a fundamental pattern of stem formation to be discussed in section 3.7.

Whereas sequences of different vowels are retained or undergo corruption or coalescence, sequences of two dorsal vowels are sometimes dissolved by inserting a subphonemic coronal glide:

- (3.26) a. {so-u-ha} → [so.yu.ha]  
           wait-3U-N  
           that s/he waits/waited for him
- b. {tu-u-ha} → [tu.yu.ha]  
           dig-3U-N  
           that s/he digs/digged it

The rule is not general but seems to be limited to the third person undergoer morpheme -u, since other instances of /u/ are not dissolved, cf. [ʔu.ukthe] 'she fried it and brought it down' in (3.9). In one exceptional case, an /a-a/ sequence too is broken up by a glide. In

this case it is the dorsal rather than coronal glide that is inserted: [tawa] {ta-a} ‘come-imperative’.

### 3.5 Prosodic alignment: gemination

Apart from the specific *sandhī* effects discussed in the preceding section, Belhare morphophonology is also characterised by a general pattern of prosodic alignment, i.e., a requirement that morphological constituents align with prosodic constituents (cf. McCarthy & Prince 1993a, 1993b; Bickel, forthcoming). Specifically, after each morphological cycle, the right edge of a Belhare morpheme must coincide with the right edge of a syllable:

(3.27) ALIGN-RIGHT (morpheme,  $\sigma$ ): ]<sub>morpheme</sub> = ] <sub>$\sigma$</sub>

This constraint is systematically overridden by two stronger constraints on prosodic well-formedness, a constraint minimising the number of syllables per prosodic word and a constraint requiring even feet, i.e., feet consisting of syllables with an even number of skeletal slots (not morae!), e.g., (<sub>FT</sub>CV.CV), (<sub>FT</sub>CV.VC) or (<sub>FT</sub>CVC.CVC):<sup>1</sup>

(3.28) MINIMISE  $N(\sigma)$  >> EVENFOOT >> ALIGN-RIGHT (morpheme,  $\sigma$ )

The ALIGN-RIGHT constraint is satisfied vacuously in many cases:

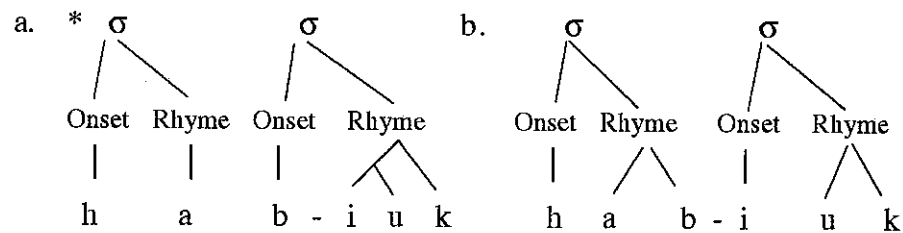
- (3.29) a. {rat-kon} → /rat.-kon/  
           shout-SDT  
           S/he is shouting (while moving around)
- b. {N-si-at-ni} → /n.si-.at.ni/  
           NEG-die-PT-NEG  
           It didn't die.

With suffixed vowel-initial morphemes, however, the alignment constraint may be violated in principle. In some cases, the violation can be simply avoided by selecting an ‘optimal’ syllabification. If the initial vowel of a suffixed morpheme is /i/ or /u/ and if this vowel is followed by another vowel, alignment violations can be avoided without

<sup>1</sup> This constraint is probably motivated by the syllabic nature of Belhare trochees (cf. section 3.3); see Bickel forthcoming for further discussion.

any repair strategy. This is possible because, as was shown in (3.10), /i/ and /u/ can be parsed as onsets in this position. For example, the non-past and imperfective suffixes, which practical orthography notes as *-yuk* and *-yakt* (Table 3.2), respectively, are underlyingly /-iuk/ and /-iakt/ since there are no phonemic glides in Belhare (see Table 3.3). When the morphemes are attached to a stem like *hap-* ‘cry, weep’ in their underlying form, there are two possible choices for syllabifying the form. The following illustrates this with the morphological input {hap-} ‘cry’ followed by {-iuk} ‘non-past’ which ends up as [ʼfiab̥.yu] rather than [ʼfia.b̥y].

(3.30) {hap-iuk} ‘s/he cries’  
weep-NPT



Only one of the syllabifications conforms with the ALIGN-RIGHT constraint, i.e., the one in (3.30b), and this is the one that is chosen as the phonological output.

Notice that the stem-final /p/ is voiced due to CYCLIC VOICING. This voicing may be blocked, however, if the subsequent syllabification would violate the canonical syllable pattern in (3.7). Consider the following example with the root {khat-} ‘go’.

(3.31)

Onset Rhyme Onset Rhyme

kh a t - i u k → [ʼkʰaʔ-yu] ‘s/he goes’

According to what we saw in Section 3.4, exceptional CYCLIC VOICING would substitute /r/ for /t/, but /r/ would end up in coda position (\*[ $\sigma$  khar]). This is at odds with the syllabification pattern in (3.7) and /r/ could not be integrated into a syllable. Therefore, /t/ is retained, but ultimately, it dissimilates post-lexically to [ʔ] before the coronal glide (cf. Section 3.2).

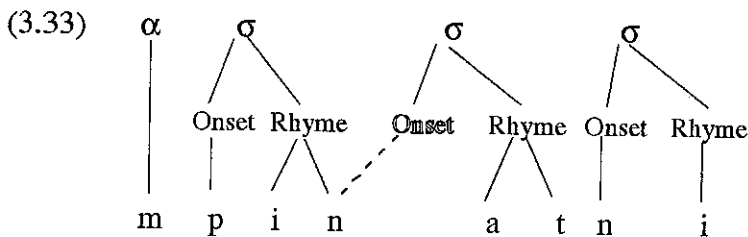
With other vowel-initial suffixed morphemes, violations of the alignment constraint cannot be resolved so easily. The simplest way of avoiding the constraint violation in these cases is epenthesis of an empty onset position, since this realigns the coda of the stem with a syllable boundary. Consider the following example, where suffixing the



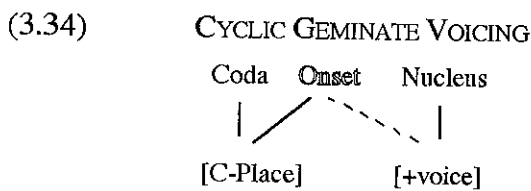
negative past marker *att-* to the consonant-final stem *pin-* 'to run' results in an ill-aligned syllabification.

- (3.32) {N-pin-att-ni} → \*/m.pi.n-at.ni/  
 NEG-run-PT-NEG  
 S/he did not run.

By inserting an empty onset position, the alignment constraint is satisfied. By general spreading conventions, the epenthetic node takes over all segmental features from the left, and the form surfaces with a geminate, viz. as /m-.pin-.nat-.ni/.



The gemination effect is slightly complicated for stems ending in non-nasal consonants. In this case, the offset of the geminate is voiced, due to the cyclic rule in (3.34) that spreads vocalic voicing features to the left. (Only geminates derived from onset epenthesis undergo this process of 'degemination'; other bimorphemic geminates are voiceless, e.g., /rat-t-he/ {cry-AUG-PT} 's/he cried', as are lexically underlying geminates, e.g., /na-ttaŋ/ {DEM-UP} 'up there'.)



This effect can be observed with stop-final stems like *lap-* 'fetch' suffixed with the stem *uk+t-* 'bring down' or with the temporary aspect marker *-hett*. In both cases, simple suffixation violates the alignment constraint because the final /p/ of the stem is syllabified together with the suffix. (A sequence of stop plus /h/ is not distinguishable from an aspirated stop in Belhare.) Therefore, an onset node is epenthesised, which results in the 'half-voiced' pattern (3.34):

- (3.35) a. {lap-uk-ma} → \*/la.b-uk.ma/, but /lap-.buk.ma/  
 fetch-bring.dwon-CIT  
 to fetch and bring down

- b. {mai-lap-hett} → \*/mai.'la.b-het/, but /mai.'lap-.bhet/  
 1sU-fetch-TEMP  
 S/he is fetching me.

The ALIGN-RIGHT (morpheme,  $\sigma$ ) constraint is limited by the higher ranking constraints MINIMISE  $N(\sigma)$  and EVENFOOT (3.28). The minimisation constraint prevents repair of misaligned strings by epenthesis if this would increase the overall number of syllables in the word.

- (3.36) {lap-t-u} → misaligned /'lap-.t-u/, not \*/'lap-.tV-.u/  
 fetch-NPT-3U  
 s/he will fetch it.

In this example, violation of ALIGN-RIGHT (morpheme,  $\sigma$ ) can only be avoided by epenthesising a vowel node. This would increase the number of syllables, whence the misaligned form /laptu/ is chosen as the correct one.

The other constraint that limits the enforcement of ALIGN-RIGHT (morpheme,  $\sigma$ ) is the requirement that feet consist of syllables with an even number of skeletal slots, i.e., (V.V), (CV.CV), (VC.VC), (CV.VC), (VC.CV), or (CVC.CVC). While this is satisfied vacuously by the previous examples of onset epenthesis, suffixation of a V-only morpheme to a CVC morpheme would violate the EVENFOOT constraint:

- (3.37) CVC - V → CVC-.CV → \*<sub>(Ft)</sub> CVC.CV

This is why the following sequences do not trigger onset epenthesis:

- (3.38) a. {ten-u} → \*<sub>(Ft)</sub> 'ten-.mu), but <sub>(Ft)</sub> 'te.n-u)  
 beat-3U  
 Beat it!
- b. {lik-a} → \*<sub>(Ft)</sub> 'lik.ga), but <sub>(Ft)</sub> 'li.ga)  
 enter-IMP  
 Come in!

It is important to notice that the alignment constraint holds in cyclic phonology. After each morphological cycle, the 'aligned' output is checked for prosodic well-formedness according to the constraint hierarchy in (3.28). Therefore, EVENFOOT disallows onset epenthesis even in forms where further morphological cycles would re-adjust the foot structure. In the following examples, onset epenthesis in the first morphological cycle,

i.e., in the strings {lap-he} and {cok-a} would violate EVENFOOT: \*<sub>(Ft)</sub>'ten-.ma) and \*<sub>(Ft)</sub>'lap-.bhe) are ill-formed. The further environment, which reintegrates /a/ and /e/ into heavy CVC syllables, is not relevant for this:

- (3.39) a. {N-ten-a-k-khak} → misaligned /n.'te.n-ak.kha/, not \*/n.'ten-.mak.kha/  
 3A-beat-SUBJ-2-N  
 that he beat you up
- b. {lap-he-ŋ} → misaligned /'la.b-heŋ/, not \*/'lap-.bheŋ/  
 fetch-PT-1sA  
 I fetched it.

In (3.39) the EVENFOOT constraint bans onset epenthesis even though the constraint would be satisfied again by the final prosodic words \*<sub>[Prwd(Ft)</sub>'ten-.mak<kha>] and \*<sub>[Prwd(Ft)</sub>'lap-.bheŋ]). The mirror-image of this is the following case. Although the ultimate surface form violates the EVENFOOT constraint, the locative case marker *-et* undergoes onset epenthesis because the cyclic sequence is <sub>(Ft)</sub>rak.get) and the final /t/ is deleted only postlexically (see section 3.3).

- (3.40) {u-rak-et} → /u-.rak-.ge/  
 3POSS-interior-LOC  
 inside

This underlines the observation that constraint evaluation in Belhare morphophonology is cyclic.

### 3.6 More prosodic alignment: augment distribution

Prosodic well-formedness and the constraint hierarchy in (3.28) is not only responsible for gemination at morpheme junctures but also for some aspects of the distribution of 'augments'. Augments are optional suffixes *-t* or *-s* that occur after the majority of Belhare verb roots. The augments relate to transitivity and causativity notions but are no longer productive nor semantically transparent (for comparative assessments, see Michailovsky 1985 and van Driem 1987, 1993b).<sup>1</sup> Although they are semantically

<sup>1</sup> There is another widespread but unproductive affix in the form of a nasality feature, cf., for example, *yep-* 'stand' vs. *yem+s-* 'raise, make stand', *lik-* 'enter' vs. *liŋ+s-* 'put in' or *hot+t-* 'make appear at, take to' vs. *hon+t-* 'appear'. The affix always precedes another augment.

frozen, they still play an important morphophonological role and have to be recognised as suffixes rather than as parts of the root. In certain environments to be discussed in a moment, a /t/ augment suffixed to a CV root is deleted, but not a /t/ that is part of the verb root. A root-augment sequence is marked here by a plus sign, e.g., {ha+t-} 'bite' vs. {phat-} 'help'. Augments are affixed on the very first morphological cycle and are always voiced after nasals or vowels. In this respect, they behave differently from suffixes on later cycles, which are voiced only if followed by another vowel. As was shown in Section 3.4, suffixation of the non-past marker *-t* as in (3.41), which repeats (3.18), does not satisfy the condition for CYCLIC VOICING as defined in (3.19).

- (3.41) a. {soi-t} → /soit-/  
wait-NPT
- b. {tim-t-} → /timt-/  
press-NPT

By contrast, the Cyclic Voicing rule and the exceptional /t/ ~ /t/ alternation apply to augments in a less restrictive manner:

- (3.42) a. {lu+t-} → /lur-/  
tell+AUG
- b. {man+t-} → /mand-/  
finish+AUG

Augments are deleted in specific environments. Except for one case, the deletion can be explained by prosodic constraints. Appearing before a consonant, an augment suffixed to a CVC root cannot be syllabified according to the pattern in (3.7) and is therefore erased:

- (3.43) {rat+t-ma} → /ratma/  
shout+AUG-CIT  
to shout

If the initial consonant is /h/, the augment is retained since, in this case, it can be syllabified as an aspirated onset.

- (3.44) {rat+t-he} → /rat.the/  
shout+AUG-PT  
s/he shouted

Given the licensing patterns of the Belhare syllable in (3.7), /s/ cannot occur in coda position. Therefore, /s/-augments to CV syllables are erased before consonants just as /s/-augments to CVC syllables are deleted. In both cases, the /s/ violates the syllable canon:

- (3.45) a. {mu+s-ma} → /muma/  
           fuck+AUG-CIT  
           to fuck
- b. {leŋ+s-ma} → /leŋma/  
               turn+AUG-CIT  
               to turn

CV-roots with a /t/-augment behave exceptionally. Even though such stems could be syllabified before consonant-initial morphemes, the augment is deleted (3.46a). Deletion of the augment differentiates the form from a /CVt/ root (3.46b):

- (3.46) a. {hi+t-ma} → /hima/  
           able+AUG-CIT  
           to be able
- b. {hit-ma} → /hitma/  
               see-CIT  
               to see

Curiously, the synchronic status of a final /t/ as an augment or as part of the root does not necessarily mirror its historical status, although this is normally the case. An exception is for instance *tat-* 'bring', where /t/ is synchronically part of the stem (cf. the citation form *tatma*), although the form is likely to derive from *ta-* 'come' plus a transitive /t/ augment.

Augments are sometimes deleted before vowels, too. After consonants, the deletion of augments is linked to onset epenthesis of the same kind as observed in the preceding section:

- (3.47) a. {N-la+s-att-ni} → /n.'la.at.ni/  
           NEG-return+AUG-PT-NEG  
           s/he didn't come back

- b. {N-lu+t-att-u-n} → /n.'lu-.at.tun/  
 NEG-tell+AUG-PT-3U-NEG  
 s/he did not tell him/her
- c. {N-leŋ+s-att-u-n} → /n.leŋ.-ŋat.tun/  
 NEG-turn+AUG-PT-3U-NEG  
 s/he didn't turn it
- d. {lep+t-an+d-he} → /lep.-ban.dhe/  
 throw+AUG-downwards+AUG-PT  
 s/he threw it down [away]

This distribution can be explained in a straightforward manner by the constraint hierarchy in (3.28). Consider first the possible analyses of CV+s/t+VC sequences as in (3.47a) and (3.47b). On the left in the optimality-theoretic tableau, I list the most 'reasonable'<sup>1</sup> analyses of the substring {lu+t-att} 'tell+AUG-PT' under the assumption of free epenthesis and free deletion. (Notice that /t/ becomes /r/ between vowels; see section 3.4.)

(3.48)	MINIMISE $N(\sigma)$	EVENFOOT	ALIGN-R (m, $\sigma$ )
☞ (r.'lu+.at)			
(r.'lu+.r-at)		*!	*
(r.'lu+.rV-.)<at>	*!		
(r.'lu+t-.dat)			*!

Only the first solution with deletion of the augment satisfies all relevant constraints. The next tableau explains why in (3.47c) and (3.47d) it is the geminated form that is chosen as the optimal output. I illustrate with the string {lep+t-an+d} 'throw+AUG-downwards+AUG':

(3.49)	MINIMISE $N(\sigma)$	EVENFOOT	ALIGN-R (m, $\sigma$ )
☞ (r.'lep+.ban)			
(r.'le.b-an)		*	*!
(r.'lep+.t-an)		*	*!
(r.'lep+.tV-.)<an>	*!	*	

<sup>1</sup> That is, only forms that can be syllabified according to (3.7) and without analyses that assume several epenthetic segments in a row.

In this case, deletion of the augment cannot repair the alignment violation. Only onset epenthesis can achieve this, whence (<sub>Fr</sub>'lep+.ban) is chosen as the optimal form. Notice that the EVENFOOT constraint is irrelevant in (3.49) since the other constraints already select the right form.

As evidenced by the final part of *lepban+d-he* 's/he threw it down [away]' in (3.47d), the augment is sometimes retained in violation of ALIGN-RIGHT (morpheme,  $\sigma$ ). This is also shown by the following examples.

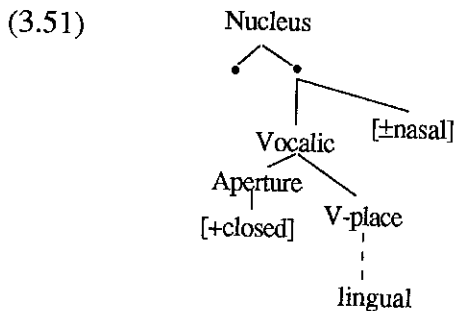
- (3.50) a. {la+s-a} → misaligned /'la.s-a/, not \*(<sub>Fr</sub>'la.a)  
 return+AUG-IMP  
 come back!
- b. {lu+t-u} → misaligned /'lu.r-u/, not \*(<sub>Fr</sub>'lu.u)  
 tell+AUG-3U  
 tell him/her!
- c. {leŋ+s-u} → misaligned /'leŋ.s-u/, not \*(<sub>Fr</sub>'leŋ.ŋu)  
 tun+AUG-3U  
 turn it!
- d. {lep+t-u} → misaligned /'lep.t-u/, not \*(<sub>Fr</sub>'lep.bu)  
 throw-3U  
 throw it!

The reason for this is that both deletion of the augment as in (3.50a) and (3.50b) and replacement of the augment by an epenthetic onset as in (3.50c) and (3.50d) would violate the EVENFOOT constraint. Notice that deletion of the augment in (3.50c) and (3.50d) would not repair the violation of the ALIGN-R constraint since \**le-.ŋu* and \**le-.bu* are as misaligned as the structurally unchanged, morphologically conservative forms *leŋ.s-u* and *lep.t-u*. This is also the reason why in {lap-t-u} 'fetch-NPT-3U' in (3.36b) the non-past marker *-t* is not deleted in parallel with the augment *+t* in (3.49).

### 3.7 Diphthong stem forms

Belhare verb roots have a canonical CV(C) shape, but a series of inflectional endings require a stem form characterised by a DIPHTHONG. This is the case with the r-perfect and perfect morphemes, the non-past allomorph *-t*, and, if the root ends in /n/, with all morphemes with initial /i/ (syllabified as a glide [y]) or initial /s/.

CV roots can qualify as diphthong stems form by simple epenthesis of a [+closed] offglide according to the general syllable canon in (3.7). The offglide is /i/ by default and /u/ after /i/-final roots. Thus, from roots like *so-* ‘wait’ or *lu-* ‘tell’, diphthong stems are formed as *soi-* or *lui-*, respectively. From /i/-final roots like *si-* ‘die’, we get stems like *siu-*. CVC roots turn into diphthongs by mapping the underlying C-place features of the coda onto the offglide position of the diphthong. In this position, the features merge with the [+closed] feature predicted by the syllable canon (3.7) and assume vocalic quality:



Presumably because [labial] is not a feature that occurs in the V-place specification of Belhare vowels (see Table 3.4), /p/ and /m/-final roots do not undergo diphthongisation. Only segments with [dorsal] and [coronal] places, i.e., the daughters of the ‘lingual’ node (Clements & Hume 1995), are mapped onto the V-place of an offglide. This results in the following alternations, illustrated by intransitive first person plural (-i) and by transitive third person undergoer (-u) non-past forms:

- (3.52)
- a. *im-* ‘sleep’ → *im-* e.g., *im-t-i* ‘we’ll sleep’
  - b. *lap-* ‘fetch’ → *lap-* e.g., *lap-t-u* ‘s/he will fetch it’
  - c. *liŋ-* ‘put into’ → *liū-* e.g., *liū-t-u* ‘s/he will put it into it’
  - d. *lik-* ‘enter’ → *liu-* e.g., *liu-t-i* ‘we’ll go in’
  - e. *tan-* ‘jump’ → *taĩ-* e.g., *taĩ-t-i* ‘we’ll jump’
  - f. *sat-* ‘take out’ → *saiʔ-* e.g., *saiʔ-t-u* ‘s/he will take it out’

There are two important exceptions to note. First, roots ending in /t/ retain a glottal closure along with the offglide (3.52f). For some reason, the (featureless) glottal stop does not appear to qualify as a real coda consonant but rather acts like a vocalic variant of /t/. The glottal stop also appears as a variant of /t/ before glides, e.g., /khaʔyu/ ‘s/he goes’ from {khat-iuk} ‘go-NPT’ (cf. example (3.31) in section 3.5).



Second, diphthong formation is blocked if the root's rhyme is /uŋ/ or /oŋ/. Thus, from *yur-* 'sit' and *toŋ-* 'agree', there are no diphthong stems \*/yuũ-/ and \*/toũ-/. This restriction is probably due to a ban on sequences of two dorsal vowels. A similar ban was noticed in section 3.4: heteromorphemic sequences of /o-u/ and /u-u/ are dissolved by epenthesis of a subphonemic glide [y], e.g., *so-y-u-ha* {wait-3U-N} 'that s/he waited for him/her' (see example (3.26a)).

Notice that the environments in which diphthong stems are selected (cf. above) do not lend themselves to a phonological definition. They include monophonemic morphemes like *-t* 'non-past' as well as syllabic morphemes like *-ŋe* 'r-perfect'. Exceptional behaviour is found with nasal-final roots, which undergo diphthong stem formation before any morpheme with an initial /i/ (syllabified as a glide) or /s/. Thus, along with an r-perfect /teĩse/ from *ten-* 'hit', there is the supine form /teĩsi/ 'in order to hit'. With these roots, the non-past allomorph /-iuk/ triggers diphthongisation, too, e.g., /maĩyu/ 'it will come to an end' from {man-} 'end'. Even suffixed stems with initial /s/ or /l/ select diphthong stems. In combination with *set-* ~ *sit-* 'kill', for instance, the root {ten-} 'hit' becomes diphthongised /teĩsii?tu/ 's/he will hit him/her to death' and with the perseverative Aktionsart specifier /-yur-/ we get the r-perfect form /teĩyurŋse/ 'he has hit him'. Such forms contrast with those of verbs that do not have an /n/-coda. For these verbs, the diphthongisation environment is restricted to the suffixes *-t* 'non-past', *-ŋa...-khak* ~ *-sa...-khak* 'perfect' and *-ŋe* ~ *-se* 'r-perfect'. The roots *liŋ-* 'put in' and *pi-* 'give', for instance, have the supine forms /liŋsi/ and /pisi/ rather than \*/liũsi/ and \*/piusi/, respectively.

### 3.8 Suffix alternations

The affixes in Table 3.2 do not show much morphophonological alternation beyond the general patterns outlined in the preceding sections and the semantically driven allomorphies detailed in the table (e.g., the *-a* ~ *-an* allomorphy linked to plural affirmative imperative forms). Some exceptional behaviour is found with the non-past, the past and the imperfective markers, which I shall discuss in the following.

The non-past marker has an allomorph {-iuk}, which, due to prosodic alignment (Section 3.5), is syllabified as *-yuk* and which, due to general coda reduction (Section 3.3), mostly appears as *-yu*. The allomorph is selected (3.53) whenever the prosodic word would be monosyllabic if the *-t* allomorph were used (3.54):

- (3.53) a. {lik-iuk} → [<sub>PrWd</sub>'lig.yu]  
 enter-NPT  
 S/he will go inside.
- b. {mai-ten-iuk} → <mai>[<sub>PrWd</sub>'teĩ.yu]  
 IsU-hit-NPT  
 S/he will hit me.
- (3.54) a. {liu-t} → \* [<sub>PrWd</sub>'liut]  
 enter-NPT
- b. {mai-ten-iuk} → \* <mai>[<sub>PrWd</sub>'teĩt]  
 IsU-hit-NPT

In other moods, Belhare does allow monosyllabic words, e.g., imperatives like {ca-u} → *co* 'eat it!' or subjunctive forms like *ca-m* 'let's eat it'. Thus, the 'BISYLLABICITY constraint' observed in (3.53) is limited to the indicative mood.

The constraint is not affected by post-lexical cliticisation in the syntax. The enclitic *-phu* 'report', for instance, does not obliterate the need to satisfy BISYLLABICITY by using the *-iuk/* allomorph:

- (3.55) male, Saĩli kha?-yuk-phu i, eseph-e? <G5.30b>  
 INIT Third.born:FEM go-NPT-REP Q S.F.-LOC  
 Wait a minute! Did Sahili say that she will go to the S.F. (= Save the  
 Children Fund post)?

Three high-frequency verbs, *cok-* 'do', *cek-* 'say', and *pok-* 'rise, begin, be affected positively', behave exceptionally and allow the *-t/* allomorph besides the regular *-iuk/* allomorph even if this violates BISYLLABICITY. Thus, besides regular */cogyu/*, */cegyu/*, and */pogyu/*, one hears */cou/*, */ceu/* and, less commonly, */pou/*. On very few occasions, I have heard this reduction also with *nak-* 'to ask for' (e.g., */akkasa kaŋnau/* 'they ask us a lot!' instead of regular */kaŋnagyu/*). All these violations of BISYLLABICITY are limited to allegro speech.<sup>1</sup>

Historically, the *-yuk* allomorph was probably borrowed from a different paradigm since, unlike the *-t* allomorph, it does not trigger diphthongisation. A possible source of *-yuk* may be an extinct paradigm in *-yuŋ-e*. On single occasions, I have recorded the forms *limyuŋe* 'it is delicious' and *khaŋyuŋeŋa* 'I will go' from old people. Consultants

<sup>1</sup> A related allegro speech effect is the common reduction of *cok-yakt-he* 'he was doing' and *cek-yakt-he* 'he was saying' to */coakthe/* and */ceakthe/*, respectively. A 'hapax akousmenon' is */toakthemma/* < *tog-yakt-he-m-ma* [find-IPFV-PT-1p-e] 'we were finding'.

claim that the forms have an archaic ring and have been replaced by *limyu* and *khai?ŋa*, respectively.

The *-t* allomorph itself is also subject to some phonological variation. As with any other morpheme sequence, the suffixation of *-t* to a diphthong (CVV) stem is subject to the alignment constraint discussed in section 3.5, i.e., the right edge of the stem morpheme must coincide with a syllable boundary. This is vacuously satisfied if *-t* is followed by vowel-initial suffixes:

- (3.56) {liu-t-i-kak} → /liu-ti.ga/  
 enter-NPT-2p-2  
 You<sup>p</sup> will go in.

However, if the subsequent morpheme begins with a consonant, the non-past exponent would be syllabified as the coda of the stem syllable, violating ALIGN-RIGHT (morpheme,  $\sigma$ ). The only way to avoid this constraint violation without increasing the number of syllables in the prosodic word (cf. the MINIMISE  $N(\sigma)$  constraint discussed in section 3.5) is to delete /t/, in the same way as augments are deleted if they are in conflict with prosodic alignment (see section 3.6):

- (3.57) a. {liu-t-kak} → /liu-.ka/, not \*/liu-t.ka/  
 enter-NPT-2  
 You will go in.
- b. {liu-t-chi} → /liu-.chi/, not \*/liu-t.chi/  
 enter-NPT-d  
 We<sup>di</sup> will go in.

Notice, however, that the underlying presence of {t} prevents CYCLIC VOICING of the second person suffix *-kak* in (3.57a). *-chi* cannot be voiced anyway because [j<sup>h</sup>i] is not a native sound of Belhare (see Section 3.2). This confirms the suggestion made in section 3.5 that prosodic well-formedness is evaluated after enforcing the relevant ‘mini-phonology’ of each morphological cycle.

The {t}-allomorph behaves exceptionally before nasals. In this environment, the marker is not deleted but replaced by a glottal stop. This is illustrated by the following example, where the non-past marker precedes the morpheme *-ŋa* indicating the ‘exclusive’ category [+speaker, -addressee], which in the singular refers to a first person.

- (3.58) {lik-t-Na} → /liu-ʔ.ŋa/, not \*/liu-.ŋa/, \*/liu-t.ŋa/  
 enter-NPT-e  
 I will go in.

This is reminiscent of the exceptional behaviour of root-final /t/ in diphthong stem formation, where /t/ has a vocalic variant /i?/. Again, it seems that the glottal stop does not count as a real coda segment.

The past marker *-he* too shows a morphophonological peculiarity. The morpheme is usually realised with breathy voice (3.59a) and, if possible, aspiration (3.59b). This is naturally blocked after /s/ (3.59c):

- (3.59) a. {yuj-he} → /yujhe/ → ['yujɛ̤]  
sit-PT  
S/he sat (down).
- b. {rat+t-he} → /ratthe/ → ['rat<sup>h</sup>ɛ̤]  
shout-PT  
S/he shouted.
- c. {ma+s-he} → /mase/ → ['mase]  
get.lost-PT  
It got lost.

Breathiness is also blocked, however, after /r/ (the intervocalic alternant of /t/) if the onset of the preceding syllable is aspirated (3.60a). If this onset is not aspirated, /r/ is realised with breathy voice (3.60b).

- (3.60) a. {khat-he} → /k<sup>h</sup>ate/ → ['k<sup>h</sup>atɛ̤]  
go-PT  
S/he went.
- b. {kat-he} → /karhe/ → ['katɛ̤]  
come.up-PT  
S/he came up here.

This long-distance dissimilation rule, which is not unlike Grassmann's Law in Indo-European, is followed by most but not all speakers.

Finally, the imperfective marker *-iakt*, syllabified as *-yakt*, shows some peculiarities which, as we shall see, are due to its history. As shown by the following examples, the marker behaves like a stem morpheme rather than a suffix. Before the non-past allomorph *-t*, *-yakt* loses the final /t/, which thus behaves like an augment, and the root syllable undergoes diphthongisation:

- (3.61) a. {ta-iakt-t-i-kak} → /tayautiga/ (\*tayauttiga)  
 come-IPFV-NPT-2p-2  
 You<sup>p</sup> keep coming.
- b. {ta-iakt-t} → /tayaut/ → /tayau/ (with postlexical coda reduction)  
 come-IPFV-NPT  
 S/he is/keeps coming.

The behaviour of /iakt/ in (3.61) contrasts with a regular inflectional suffix like the 'definitive' marker in /-iuk/, syllabified as *-yuk*, which does not alternate with \*/-yuu/:

- (3.62) ta-yuk-t-i → /tayukti/  
 come-DEF-NPT-1p  
 We<sup>pl</sup> will come.

The parallelism of *-yakt* with stems is limited, though. The morpheme has a special allomorph *-ya* triggered by the negative past marker *-att*. Instead of the expected derivation in (3.63a) with deletion of final /t/ and onset epenthesis because of prosodic alignment, we get the form in (3.63b).

- (3.63) a. \*{N-chap+t-iakt-att-u-n} → \*/nchabyakgattun/  
 NEG-write+AUG-IPFV-PT-3U-NEG  
 S/he was not writing.
- b. {N-chap+t-ia-att-u-n} → /nchabyaattun/  
 NEG-write+AUG-IPFV-PT-3U-NEG  
 S/he was not writing.

Such allomorphy is atypical for lexical stems and has no parallels elsewhere in Belhare morphology. This suggests that the imperfective marker is a filler of the inflectional suffix slot sf1 in Table 3.2 and that the *-yau* variant is better considered a lexical allomorph rather than the result of phonological alternation — at least from a synchronic point of view. Historically, *-yakt* derives from a derivational Aktionsart specifier *\*-yakt* and, ultimately, from the verb stem *\*yak+t-* 'stay', which has modern reflexes in *yak-* (without augment) 'find shelter, stay overnight', and, with a nasal augment (cf. Footnote 1 on page 76), in the preverbal distributive marker *yaŋ* (e.g., *yaŋ hitma* 'to look around, to sightsee'). This etymology has parallels in many of the world's languages, e.g., in the development of Latin *stāre* 'stay' into a progressive or imperfective marker in Italian or Spanish.

Another piece of evidence for assigning *-yakt* to suffix slot sf1 is the following. The perfect and r-perfect suffixes are suffixed to verbal stems, including Aktionsart specifiers:

- (3.64) *khi-ŋa-ha*  
 quarrel-INTR.PERF-PERF  
 S/he has quarrelled.

From a semantic point of view, the imperfective suffix *-yakt* could be expected to be fully compatible at least with such forms. However, this combination is rejected:

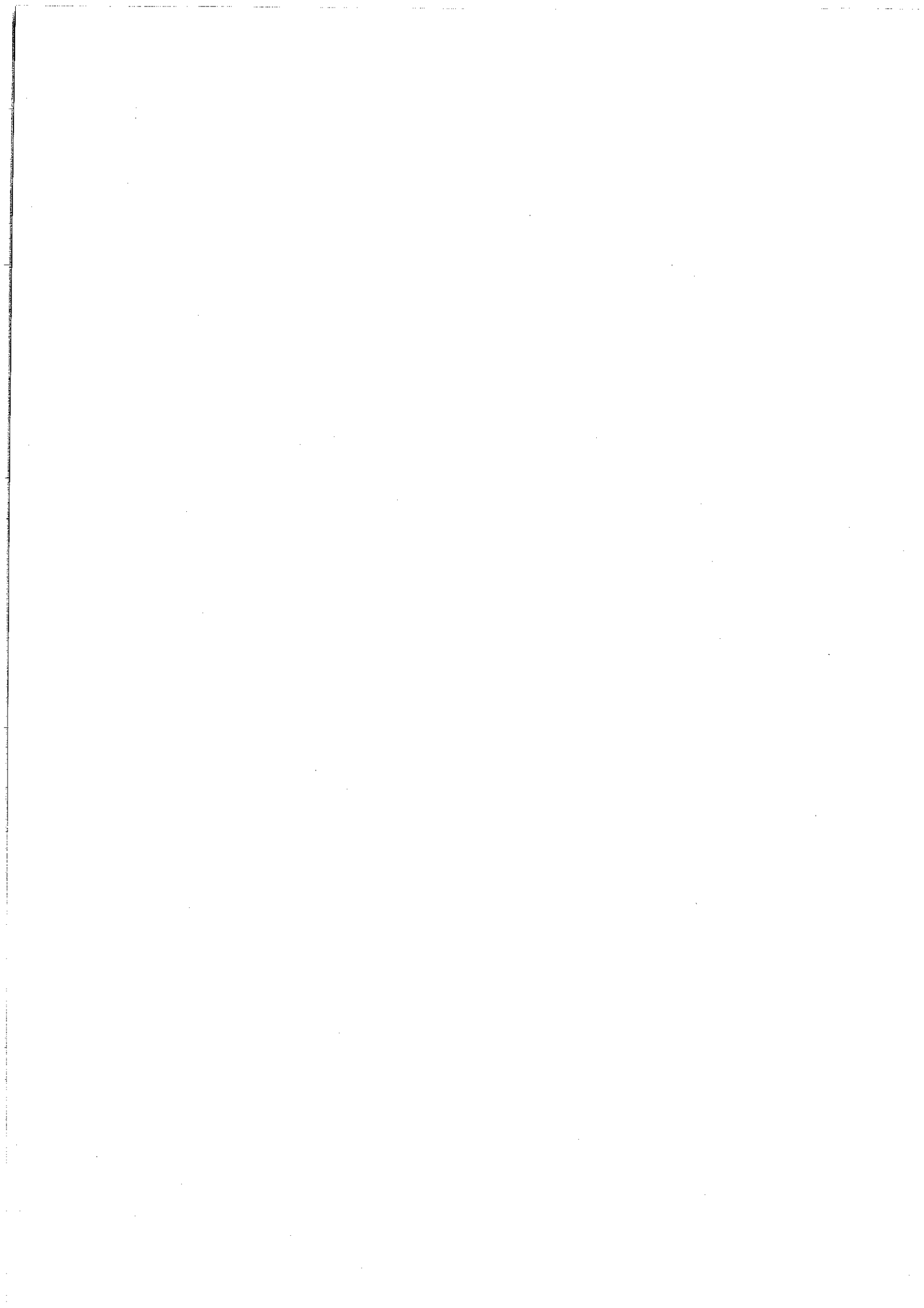
- (3.65) *\*khi-yau-ŋa-ha*  
 quarrel-IMPV-INTR.PERF-PERF  
 s/he has been quarrelling

This implies that *-yakt* and the perfect marker are in a paradigmatic rather than syntagmatic relationship. Since the perfect morphemes occupy sf1 and sf2 simultaneously, this suggests *-yakt* as a filler of sf1 or sf2. Of these, only the sf1 position is plausible because *-yakt* cooccurs with the sf2 fillers *-he* 'past' and *-att* 'negative past'.

## Part II

Morpheme

Semantics and Pragmatics





## Chapter 4

### Mood and temporal reference

The goal of this chapter is to show that the fillers of suffix slot *sf2* are best analysed as structured by two basic semantic oppositions, viz. the non-past vs. past and the indicative vs. subjunctive opposition. This is diagrammatically shown in Table 4.1.

		indicative	subjunctive	imperative	citation form
non-past		<i>-t ~ -yuk</i>	<i>-ϕ</i>	<i>-a ~ -an</i>	<i>-ma</i>
past	affirmative	<i>-he</i>	<i>-a</i>		
	negative	<i>-att</i>			

*Table 4.1: The mood/tense system in suffix slot sf2*

Notice that there is no morpheme for the combination of non-past and subjunctive features. This gap is filled by an unmarked verb form that consists of the bare stem plus person, number role inflection. We will see that this zero form serves as a subjunctive non-past mood by pragmatic implicature. Its range of use, however, goes far beyond that of the subjunctive or the non-past categories.

The semantically least spectacular categories in this system are the imperative and the citation form. The imperative has a straightforward directive function, but is far more commonly used than its European or Nepali equivalents. It is not uncommon to use a bare imperative like *khar-a!* ‘go!’ even where Nepali speakers would use a high grade honorific form (e.g., *jānus!* rather than *jā!* or *jāu!*). The citation form is used for simple statements without temporal or modal qualifications (4.1a) (cf. Bickel 1993). Its main use, however, is in light verb constructions like (4.1b). Notice that these constructions partly involve ‘raising’ of the lower absolutive argument (4.1c) (see Bickel, in press-a).

- (4.1) a. na yeti? — sabun. nabhak chi-ma.  
 DEM what soap face wash-CIT  
 What’s that? — Soap. To wash my face.
- b. khat-ma khe-yu.  
 go-CIT must-NPT  
 We should go. (cf. French *il faut aller*)

- c. roti khut-ma-cha ka-ŋ-na-rend-he. <G4.48b>  
 bread bring-CIT-ADD iU-3nsA-stop-TEL-PT

They also stopped bringing us bread.

I shall not discuss the imperative and the citation form in any more detail here.

The indicative vs. subjunctive opposition will be dealt with later in this chapter. In the following, I first discuss the distinctions that are orthogonal to the subjunctive vs. indicative opposition, viz. the non-past vs. past parameter. Notice that within the past category, there are two exponents, *-hel-a* and *-att* for affirmative and negative forms, respectively. The morpheme *-att* is a ‘negative polarity item’ and signals ‘possibly occurring in what would be encoded as a past situation’ rather than just ‘past’. This is in agreement with a fact about natural language that has long been noticed by linguists (but usually ignored by logicians): the information value of *p* in an affirmation ‘*p*’ and of *p* in a refutation ‘*¬p*’ is not the same (see Horn 1989, Contini-Morava 1989 for discussion). The *-att* vs. *-hel-a* opposition marks precisely this difference between a possible but refuted proposition and an affirmed proposition. For the sake of easier glossing, however, I shall label *-att* simply ‘past’. The meaning behind the category label ‘past’ is the subject of the following section.

#### 4.1 The ‘past’ vs. ‘non-past’ opposition: mood or tense?

At first sight, Belhare might be analysed as distinguishing between a past and a non-past tense. I will argue in this section, however, that the system, like many similar systems in other languages, is not temporal but has more to do with notions of mood. In other Kiranti languages, a similar system to Belhare is usually analysed in terms of ‘tense’ (e.g., Michailovsky 1988, van Driem 1987, 1993b).

Examples fitting the ‘tense’ hypothesis in Belhare are easy to find. A simple form, to wit, a form without overt aspect marking, locates an event in the past (4.2a) if marked by *-he*, and in the present (4.2b) or future (4.2c) if ending in *-t* ~ *-yuk*. (For reasons discussed in Chapter 5, present time reference is only possible with static predicates, except for highly specific contexts; dynamic predicates would require the temporary or imperfective aspect.)

- (4.2) a. u-burhi pakt-he. <G4.30a>  
 3POSS-wife touch-PT  
 He touched [the other guy’s] wife.

- b.  $\eta$ ka kubar $\eta$ -chi-e $\eta$ wa-ulo      lui- $\eta$ - $\eta$ a. <G4.42b>  
 1s monkey-ns-LIKE-CONTR feel-NPT-e  
 But to me, they look like monkeys.
- c. yu!      yu-i-na      n $\Delta$ dhi-lamma     $\eta$ ker $\eta$ chin  
 ACROSS ACROSS-DIST-DEM river-MED      1 $\Delta$ e  
 khai-chi- $\eta$ a. <IV117b>  
 go:NPT-d-e  
 Over there! We $\Delta$ e will go by that river over there.

In negative forms, the suffix *-he* is replaced by *-att*, signalling that an event could have occurred in the past but did not (4.3a) or presumably did not (4.3b).

- (4.3) a. it-cha    ma- $\eta$ -lu-at-ni.  
 one-ADD 1sU-nsA-tell-PT-NEG  
 They didn't tell me anything.
- b.  $\Delta$ ni  $\eta$ -kitd-att-u-n      i? <IX3>  
 and NEG-fear-PT-3U-NEG Q  
 And was he not afraid of him?

Also fitting the 'tense' hypothesis is the use of *-he* and *-att* in the apodosis of a counterfactual conditional. Conditional clauses are not marked as such but are expressed by adsentential subordination with the cliticised topic marker *-naa* (see Bickel 1993 for discussion):<sup>1</sup>

- (4.4) a. na    anguthik     $\eta$ -kopb-att-u-n-gak-naa-be,  
 DEM finger.ring NEG-pick.up-PT-3U-NEG-2-TOP-IRR  
 $\eta$ ka karl-ap n-cokg-at-na-n-be. <KP64a>  
 1s call-INT NEG-AUX-PT-1>2-NEG-IRR  
 If you hadn't picked up this ring, I wouldn't have called you.  
 (Cf. Russian: *Esli ty ne sxvatila by èto kol'co, ja tebja ne prizval by.*)
- b.  $\eta$ ka-na    har-e- $\eta$ -be      kochu lis-a- $\eta$ -naa. <G4.56b>  
 1s-TOP bite-PT-1sA-IRR      dog be-SUBJ-e-TOP  
 I would have bitten him if I were a dog.

<sup>1</sup> In Bickel (1993) I misinterpreted the length on *-naa* as a secondary feature attached to a specific clause-final intonational pattern and did not transcribe it. In clause-final position, the topic marker is always long.

The counterfactual meaning results from combining past tense with the irrealis enclitic *-phe* (~ *-be* after vowel or nasal), (much in parallel with the enclitic *by* in Russian). The same irrealis marker also occurs with *-t* ~ *-yuk* forms in clauses that encode more probable conditions:

- (4.5)    nis-u-cha-be            ni-yakt-u-lok-to            n-niu-?-na-n  
           see-3U-ADD-IRR        see-IPFV-3U-COM-ID        NEG-see-NPT-1>2-NEG  
           lur-u-naa-be    hamba    marj    niu-t-u-m-be. <IV105a>  
           say-3U-TOP-IRR   today        deity    see-NPT-3U-1pA-IRR  
           If he, although he did see [the god], had said 'I can't see you' at  
           [the god's] appearance, we<sup>pl</sup> could see the god today.

Irrealis forms in *-he-be* are also found outside compound sentences, for example in (4.6). The example is one of a series of puns that play with the potential amphiboly of *lihare* [be-TEL-PT] 'it was/became' and (*u-*)*li hare* [(3POSS-)penis burn-PT] '(his) penis burnt (i.e., was or got aroused)'. .

- (4.6)    yembicha lis-e-be,    meacha li-har-e. <G5.19b>  
           man        be-PT-IRR    woman    be-TEL-PT  
           If it had been a boy! It's a girl. (literally, 'It became a girl.')
- As a pun: If it had been a boy [it would have been natural.] A girl's penis got aroused!

Together with occurrences like the following, (4.6) confirms the analysis of *-phe* ~ *-be* as a modal enclitic rather than as a conditional marker. The imperative in (4.7a) was directed towards a girl who had her hands already full with kitchen utensils, taking them back to the fireplace. (4.7b) exemplifies *-phe* ~ *-be* with a subjunctive in independent use (cf. below).

- (4.7)    a.    i-na            thali-cha    khatt-u-be! <G5.19b>  
           DIST-DEM   plate-ADD    take-3U-IRR  
           If only you would also take the plates with you! (But I see that you can't.)
- b.    na-kha    male    emu    cog-i-be-ndo? <KP17b>  
           DEM-ns   NOT    how    do-1p-IRR-CEXP  
           But how would we manage without them?

Similar to the uses in (4.6) and (4.7) are the *-he* forms in the irreal optative in the following examples (see Bickel 1995a for further discussion of the optative).

- (4.8) a. *akg-apt-he-m-ma-be!* <G4.24a>  
 OPT-bring:ACROSS-PT-1pA-e-IRR  
 If only we<sup>pe</sup> had taken [the youngest daughter] with us!
- b. *akg-ab-he-be!* <G5.60a>  
 OPT-come:ACROSS-PT-IRR  
 If only he had come over!

In all of the above examples, the marker *-he* combines with the irrealis enclitic to signal counter-factuality. This is fully compatible with an analysis of *-he* as a past tense marker.

However, — and this is crucial — the morpheme is also used with counterfactual meaning without irrealis marking. Such is the case in the following examples. (The verb *lima* ‘to be(come)’ in (4.9c) is commonly used to indicate satisfaction: *abo liyu* ‘now it will be OK, it will work’, or *lise* ‘that’s it’; cf. English *that’s it*, French *ça y est*, Nepali *bhayo*, etc.).

- (4.9) a. *ŋka n-cha lis-e-ŋa.* <G3.62a>  
 1s 2POSS-child be-PT-e  
 (Suppose) I was your child.
- b. *male, Pirthibi Naraen lis-e-ga* <KP29b>  
 INIT P. N. be-PT-2  
 (Suppose) you were King Pṛthvī Nārāyaṇ Śāh.
- c. *ŋke ma u-riti ca-m kina ŋke-a sappe kuro*  
 1pi mother 3POSS-ceremony eat-1pA SEQ 1pi-OBLall matter  
*ca-he-m: imbi kuro n-li-at-ni* <KP36a>  
 eat-PT-1pA how.much matter NEG-be-PT-NEG  
 We might eat our mother’s *rit* and then we would eat everything: how wrong that would be!

The same use is found in conditionals. In (4.10), the native topic construction in *-naa* is replaced by a pattern borrowed from Nepali that involves the conjunction *bhane*:

- (4.10) *i-na-ha pari-bhasa uttar pi-ma ŋŋ-hi-at-ni-ŋ bhane,*  
 DIST-DEM-N return-speech answer give-CIT NEG-able-PT-NEG-1sA if  
*yeti Kathmandu tas-e-ŋ?! <X18>*  
 what K. reach-PT-1sA  
 If I had been unable to answer those [questions], how [could I claim that] I reached Kāthmāṇḍū?!

Since confluences of past tense and counterfactual or irrealis mood are recurrent all over the globe (see Palmer 1986 for a review), we had better not postulate homophony. Rather, I assume a semantic feature 'dissociative' (vs. 'associative') which has first been suggested by Seiler (1971) to account for the distribution of optative and preterite forms in Ancient Greek conditionals, and which has been postulated for Proto-Uto-Aztec *\*ta* by Steele (1975). The feature, which is potentially a universal primitive, captures unreal and past situations through the common denominator 'dissociated from the current reality'. Taken as such, however, dissociation from current reality also applies to future events. This is not a problem in Greek because unreal and past situations are not only past but also marked as 'non-prospective'. Neither is it a problem in Proto-Uto-Aztec because the opposition is reconstructed only for non-future paradigms.

In Belhare, nothing prevents the notion 'dissociated from current reality' from applying to non-past events. Such events are marked by the non-past marker *-t ~ -yuk*, which often has a modal colouring, indicating ability and potentiality rather than current reality:

- (4.11) a. *yol-leŋ hoĩ-ka i?* <G3.14b>  
 ACROSS:TRANSP-DIR arrive:NPT-2 Q  
 Can you cross [the river]? (Literally, Do you arrive at the other side?)
- b. *n-li toĩ-yu i?* <G3.79b>  
 2POSS-penis aroused-NPTQ  
 Do you get erections? (i.e., are you a real man?)

Often, non-past forms suggest volition (4.12a) or refer to the inclinations of the subject rather than to his current activities (4.12b). The connotations are very similar to the ones of the Turkish 'Aorist' that we briefly touched upon in Chapter 2. (Before *cokma* 'to do', *yeti* 'what' is often shortened to *yet* in casual speech.)

- (4.12) a. *khar-an-i! ŋka chap-t-u-ŋ!*  
 go-IMPp-p 1s write-NPT-3U-1sA  
 Go! I want to write.
- b. *yet' cou-ka, pasiŋ?* <G5.24b>  
 what do:NPT-2 old.man  
 What are you up to, old man?  
 (Turkish *Ne yaparsın?*)

While they share an unqualified notion of dissociation, the forms in *-hel-att* contrast with those in *-t ~ -yuk* in marking the event as not subject to the control or wish of

anybody in the present. Events encoded by non-past forms are potentially susceptible to the influence of somebody's activities or of a natural event in the present. This is particularly evident in examples such as (4.11) and (4.12). The non-past marker does not specify that events are subject to current influence, it only allows this as a possibility. Semantically, it is an entirely open issue whether a non-past event will be realised at all or whether a state will last on or not. Only pragmatic information suggests whether an event is likely to occur (4.13a) or whether the speaker is just speculating (4.13b).

- (4.13) a. ne-e           luu-t-u-ŋ                   ki sui-t-u-ŋ. <G4.59a>  
 LDEM-LOC   make.wet-NPT-3U-1sA   SEQ smear-NPT-3U-1sA  
 I will make [the cotton pad] wet here and will smear [the disinfectant on the wound].
- b. hamba n-yoŋ-?-ni,                   wet! <G4.19a>  
 today   NEG-pause-NPT-NEG   rain  
 It won't stop raining today!

By contrast, past events are either already realised, i.e., past, or they are judged unlikely to be realised. Gricean maxims, especially the Maxim of Relevance, universally seem to favour talk about real things rather than unreal things and, thus, past time reference stands out as the standard implicature. The other reading arises only if world knowledge specifically cancels the possibility of a past reality. Often, the reading is counter-factual (4.9–10) but this need not be so. What is crucial is only that the speaker judges the event unlikely to be realised on the basis of the current situation. Such is the case in the following examples.

- (4.14) na-kha-ro tuk-khar-e, la um-a-na-ŋa. <V153>  
 DEM-ns-ID hurt-TEL-PT walk-SUBJ-TOP-PTCL  
 These [= the legs] would hurt, if he walked.

This implicature of the past tense is often exploited for rhetorical purposes. While the non-past form of *khes-* 'must, have to' signals general obligation in a way similar to French *il faut*, the past form suggests that the speaker thinks that the obligation cannot be fulfilled any more:<sup>1</sup>

<sup>1</sup> According to the Aktionsart tests in Chapter 12, *khes-* is an ingressive-phasal verb. For this Aktionsart it is characteristic to have non-past time reference with simple (perfective) past inflection. This alone could account for the current time reference of the example, but would not explain the politeness effect. Thanks to Karen Ebert for drawing my attention to this problem.

- (4.15) na-ttaŋ-leŋ kat-ma khes-e-no! <V5:44>  
 DEM-UP-DIR come.UP-CIT must-PT-CONF  
 We should have come up here!

If there is pragmatic evidence to the contrary, however, the assertion that the obligation cannot be fulfilled produces an effect of politeness. This is very similar to the effect of the English past tense in polite requests (cf. *I wanted to ask you a favour*; see Steele (1975) and Fleischman (1989) for discussion):

- (4.16) khi thuŋ-ma khes-e! <G3.64b>  
 yams put.on.fire-CIT must-PT  
 One should put the yams on the fire!

The last example might suggest that the ‘irrealis’ and ‘counterfactual’ uses of *-he* and *-att* could be accounted for by a metaphor scheme from past to dissociation, along the lines suggested by Fleischman (1989). While this could indeed be the historical development<sup>1</sup>, it does not capture the contemporary situation in Belhare. Unlike past tenses in Romance or English, the Belhare past can have non-temporal meanings even in plain statements (4.9) — clearly beyond the context of conditionality or politeness. Therefore, I postulate an analysis of *-he* and *-att* in terms of a *Gesamtbedeutung* rather than a metaphor scheme. The definition of the non-past vs. past opposition is summarised in (4.17). Notice that the opposition is taken to be equipollent. I have no evidence for the non-past being used for past or ‘dissociated’ events.

- (4.17) The ‘non-past’ (*-t ~ -yuk*) states that the realisation of an event can be affected by the present situation. By contrast, the ‘past’ markers *-he* (affirmative) and *-att* (negative) exclude the event from any potential influence arising from the present.

The notion of potential influence in this definition suggests that the system concerns mood rather than tense. It crucially relies on the judgement of the speaker about realisability and controllability rather than on his knowledge and assumptions about temporal relations. ‘Mood’ is cross-linguistically a problematic if not completely ill-defined category (cf. Bybee 1985). I retain the term, however, for lack of a better one. An alternative term, ‘status’, has been reserved for realis vs. irrealis distinctions (Foley & Van Valin 1984). This, however, does not quite fit the semantic structure of the non-

<sup>1</sup>Alternatively, the counterfactual use may have arisen first in conditionals through semantic assimilation to the irrealis clitic *-phe ~ -be*. See Givón (1994) for a similar observation in a wide range of languages.



past vs. past opposition in Ancient Greek, Uto-Aztecan and Belhare. To the degree, however, that the opposition resembles the realis vs. irrealis domain, we might as well perpetuate the term 'mood' (or 'modality') as it has been used by Whorf (1938), since Foley & Van Valin (1984) apparently reversed the original terminology. In Whorf's terminology, 'status' concerns illocutionary force, 'modality' the speaker's stance on a proposition (cf. Bybee 1985).

An advantage of the term 'mood' is that it also includes the indicative vs. subjunctive distinction, which is integrated into the same morphological slot position (cf. Table 3.2). These are the categories we now turn to.

#### 4.2 Indicative vs. subjunctive

The non-past vs. past opposition discussed so far operates in the unmarked indicative mood. It is recapitulated, however, in the subjunctive system, where it formally appears in the distinction between *-a* 'past subjunctive' and a zero form that fills the morphological gap in Table 4.1. That the two subjunctive forms do indeed differ in terms of the 'past' parameter defined in (4.17) is evident from the fact that *-a* forms refer to past (4.18a) or unreal (4.18b) events.

- (4.18) a.  $\lambda$ ru thaũ-e khar-a-ŋ-na-ŋa ŋka damai-ŋa  
 other place-LOC go-SUBJ-e-TOP-EMPH 1s tailor-OBL  
 thuu-s-u-hak-cha cai-se-ŋ. <III99.28>  
 cook-TR.PERF-3U-N-ADD eat-TR.RP-1sA

When I went to another place, I even ate (literally, 'came into a state of having eaten'<sup>1</sup>) what a tailor (= somebody from the untouchable tailors' caste) had cooked.

- b. ŋka-na har-e-ŋ-be kochu lis-a-ŋ-naa. <G4.56b>  
 1s-TOP bite-PT-1sA-IRR dog be-SUBJ-e-TOP

I would have bitten him if I were a dog.

By contrast, the zero marked subjunctive locates events in an associated temporal or modal 'world', which the speaker judges (still) possible to occur.

<sup>1</sup> See Chapter 9 for discussion of the r-perfect form.

- (4.19) a. bhia-et-cha keti nak-si η-khat-na-ŋa, akkasa paisa  
 marriage-LOC-ADD girl ask-SUP 3nsS-go-TOP-PTCL much money  
 n-nau-t-u-chi, akkasa casak, akkasa phak-chi. <III71.17>  
 3nsA-ask-NPT-3U-nsU much rice much pig-ns  
 When they ask for a girl to marry, they ask them for a lot of money, and  
 a lot of rice and many pigs.
- b. tuy-u-m-naa ηη-hōĩ-?-ni i? <G56b>  
 dig-3U-1pA-TOP NEG-appear-NPT-NEG Q  
 If we dig, won't it come out?

The following examples illustrate the minimal contrast between the past (a-examples) and the non-past subjunctive (b-examples).

- (4.20) a. Kathmandu khar-a-ŋ-naa u-khim nis-e-ŋ-be (\*niu-t-u-ŋ-be)  
 K. go-SUBJ-e-TOP 3POSS-housesee-PT-1sA-IRR see-NPT-3U-1sA-IRR  
 If I had gone to Kāthmāṇḍū, I would have seen his house.
- b. Kathmandu khat-na-naa u-khim niu-t-u-ŋ-be. (\*nis-e-ŋ-be)  
 K. go-e-TOP 3POSS-housesee-NPT-3U-1sA-IRR see-PT-1sA-IRR  
 If I go to Kāthmāṇḍū, I will/can see his house.
- (4.21) a. khar-a-na sata  
 go-SUBJ-ART week  
 Last week
- b. ta-na sata  
 come-ART week  
 Next week

In subordinate clauses marked by the comitative case *-lok* (cf. Bickel 1993), the remoteness distinction in the subjunctive is bound by *cōnsecūtiō temporum* (or, strictly speaking, *modōrum*). Clauses in *-lok* must be in the subjunctive:

- (4.22) a. nam kus-a-lo kam cog-he-ŋa (\*cou-?-ŋa)  
 sun set-SUBJ-COM work do-PT-e do-NPT-e  
 I worked till the sun set.
- b. nam ku-lo kam cou-?-ŋa (\*cog-he-ŋa)  
 sun set-COM work do-NPT-e do-PT-e  
 I will work till the sun sets.

On the basis of examples like (4.20), one might want to claim *cōnsecūtiō temporum* also for subjunctive clauses subordinated by the topic enclitic *-naa*. Whereas there might be a tendency towards such a rule, it is not a grammatical constraint. We have already seen a counterexample in the conditional (4.5), which ends in a non-past apodosis. The protasis *lurunaa* ‘if he had said’ could be formally analysed as non-past. However, paraphrase tests show that the form derives from past subjunctive *lur-a-u-naa* [tell-SUBJ-3U-TOP] with deletion of /a/ according to the general vowel corruption rule introduced in Chapter 3. The subjunctive marker would appear if there were two actors: *lur-a-ch-u-naa* [tell-SUBJ-d-3U-TOP] ‘if they<sup>d</sup> had said’.

The past subjunctive is restricted to subordinate clauses, where it signals the backgrounded and ‘pragmatically presupposed’ (Stalnaker 1972) status of the proposition.

- (4.23) The subjunctive in *-a* presents a ‘past’ (dissociated) proposition that is pragmatically presupposed and outside the scope of illocutionary force.

The past subjunctive cannot constitute utterances on its own because an utterance must have illocutionary force. This does not imply a converse requirement that all subordinate clauses must be in the subjunctive. However, in two types of subordinate clauses, comitative (4.22) and nominalised past clauses, the subjunctive is compulsory. Nominalised clauses realise either relativisation or complementation (see Bickel 1995c):

- (4.24) a. m-pok-teĩ-yakt-a-ch-u-ha      kop-khutt-he-ŋ-chi-ŋ <G5.49a>  
 3nsA-leave-TEL-IPFV-SUBJ-d-3U-N      pick.up-take-PT-1sA-nsU-1sA  
 I picked up and took away all they<sup>d</sup> left behind.
- b. maʔi-chi m-pind-a-ha      nis-e-ŋŋ-ha mu. <IV4>  
 person-ns      3nsS-run-SUBJ-N      see-PT-1sA-N      OBV  
 But it’s true that I have seen people running around!

The indicative is rejected in this environment:

- (4.25) a. khonʂ-a-ha / \*khonʂ-e-ha maʔi  
 play-SUBJ-N      play-PT-N      person  
 The man who played
- b. ŋ-khar-a-ha / \*ŋ-khar-e-ha nis-e-ŋ.  
 3nsS-go-SUBJ-N      3nsS-go-PT-N      see-PT-1sA  
 I saw them go.

Other types of subordinate clauses have a preference for subjunctive mood, but other marking is also accepted.

In negative past forms, the subjunctive vs. indicative distinction is neutralised. Both are marked by *-att*, i.e. they are categorised as ‘possible in a world that would be past (dissociative)’. It is not surprising that this categorisation should preclude the formal distinction between the mere presentation of a proposition and its assertion. The protasis in (4.26) has subjunctive value.

- (4.26) i-khe mi-n-cekg-at-ni-naa jaile-cha i-khe-ʔwa-ro  
 DIST-MDEM NEG-3ns-say-PT-NEG-TOP ever-ADD DIST-MDEM-LIKE-ID  
 lis-e-be. <IV120>  
 be-PT-IRR

If they had not talked like that, it would always have been like that.

There is one sentence type that, at first sight, seems to challenge the hypothesis (4.23), which excludes the subjunctive from independent sentences. Consider the following examples. In both cases, the subjunctive forms appear in an independent, though nominalised, clause.

- (4.27) a. helo, utti-ro i? eʔwa lus-a-k-kha? cokho  
 CONTR.INT that.much-ID Q bathe-SUBJ-2-N pure  
 cog-a-k-kha utti-ro i? <KP17a>  
 do-SUBJ-2-N that.much-ID Q

Wait a minute! That’s it? That’s [how] you bathe? That’s all you do to get pure?

- b. A: u-muk-ŋa i-khe meʔ-yakt-u-ha  
 3POSS-hand-OBL DIST-MDEM cause-IPFV-3U-N

It was something like this that he was doing with his hand.

- B: un-na rok khott-he. <K46>  
 3-OBL infection touch-PT

[You mean,] he touched the wound.

However, the use of the subjunctive in (4.27) is due to the over-all semantics of the sentences. As argued in Bickel (1995c), independent nominalised clauses in Belhare are focus constructions. They have a structure similar to cleft sentences in languages like English or French. It is well known that focus constructions in general involve two semantic propositions: one that is presumed to be accessible to the addressee, and another one that asserts (or questions) the identity of a particular reference variable (e.g.,

Bearth 1987, Lambrecht 1994). The first proposition has the status of a presupposition, which means that it is not open to illocutionary qualification as assertive, interrogative, dubitative, etc. It follows from this that the subjunctive is most suitable for a focus construction. The form marks the presupposition in the construction. Unlike English cleft sentences, the asserted (or questioned) instantiation of the open variable is not encoded. This is so because Belhare does not employ an identity copula in focus constructions. In English, the copula is open to illocutionary marking (cf. *it is me who went!*, *is it you who went?*, etc.).

The subjunctive is semantically a better fitting choice than the indicative in focus constructions. This does not ban the indicative entirely from this environment, though. Examples like the following are rare in natural discourse, but consultants judge them perfectly grammatical.

- (4.28) a. bhia-ek-kha he-na ceg-he-i-k-kha? <G3.110a>  
 marriage-LOC-N which-ART say-PT-2p-2-N  
 Which [picture] did you say is from the marriage?
- b. emu lis-e-k-kha? <KP80b>  
 how be-PT-2-N  
 How was it?! (i.e., report immediately!)
- c. phensaŋ-do ŋ-khar-e-ha mu! <IV27>  
 left-ID 3nsS-go-PT-N OBV  
 It was to the left that they went!

It is difficult to assess the nuance of these examples as compared to subjunctive constructions. They seem to have a flavour of 'immediacy'. Informants are completely agnostic and more light can be brought on the issue only by additional discourse analysis. In any event, the examples show that the subjunctive can be replaced by the indicative in this context. From this, it follows that the two mood categories are in privative rather than equipollent opposition.

In the introduction to the present section, we have noted that there is no non-past subjunctive morpheme, but that a morphologically unmarked form fills the gap (see Table 4.1). There are two ways of dealing with such a situation: either one postulates a zero morpheme with no phonological expression but with a specific semantic content (i.e., 'non-past subjunctive') or one derives the surface functions of the unmarked form from pragmatic principles. There is clear evidence against a zero morpheme analysis and in favour of a pragmatic account.

First, it is true that the *-a* vs. zero opposition illustrated with examples (4.18) – (4.22) recapitulates the past vs. non-past contrast of the indicative system. However, this parallelism between the subjunctive and the indicative system has pragmatic rather than semantic foundations. Let's assume that the subjunctive past in *-a* and the zero form make up a Horn-scale in the sense defined in the introductory chapter:

(4.29) Subjunctive tense field: <SUBJUNCTIVE PAST, Ø>

The subjunctive is defined as in (4.23), i.e., by the features 'past' (or 'dissociative') and 'illocutionarily opaque'. The Sufficiency Principle ('Make your contribution as informative as required') urges the use of the subjunctive wherever the event is in the past. The Minimisation Principle ('Don't make your contribution more informative than is required!') induces from the use of the zero form a non-past reading. This accounts for the non-past value of the zero form in (4.18) – (4.22).

If this analysis is correct, we should expect situations where the Sufficiency implicature is cancelled so that the zero form has a past value. Such a situation arises in sequential narrative chaining marked by *ki* (or any elaboration of this conjunction as *kina*, *kinahuŋ* or *kinahungo*<sup>1</sup>). The clauses are integrated into a past tense narrative sequence, but they are illocutionarily independent (Bickel 1993: 34). The past subjunctive is ungrammatical in *ki* or *kina* sentences. If the speaker wants to stay explicitly uncommitted to an event, the only choice in such contexts is the zero form. The subjunctive *ca-a-u-m*, realised as /cawam/ due to vowel corruption and glide epenthesis (see Chapter 3), in (4.30) would be inappropriate and the indicative *cahem* would implicate assertion.

(4.30)   ŋke ma       u-riti                   ca-m kina ŋke-a sappe kuro ca-he-m.  
           1p mother 3POSS-ceremony eat-1pA SEQ 1p-OBL all       stuff eat-PT-1pA  
           imbi       kuro n-li-at-ni <KP36b>  
           how.much stuff NEG-be-PT-NEG

We might perform our mother's *rit* and then we would eat everything: how wrong that would be!

Another piece of evidence for the pragmatic account comes from subordination. If there were a zero morpheme specified for non-past subjunctive mood, analogy with the past subjunctive would lead us to expect that this is the only possible or at least the unmarked choice in relative and complement clauses. It is neither. On the contrary, the

<sup>1</sup>The semantic differences between these forms are very subtle and I have not come up with a convincing hypothesis. They seem to relate to textual articulation. The ending *-huŋ* corresponds to the ablative suffix and *-go* seems to have a focussing effect, albeit a very slight one.

usual mood in non-past nominalised clauses is the indicative, marked by *-t* and/or stem diphthongisation:

- (4.31) a. make *ŋ-roī-kha* hit *maʔi-mett-he*,  
maize 3nsS-grind:NPT-N look eU-cause-PT  
*muliga lalik n-teī-t-u-ha* hit *maʔi-mett-he*. <K15>  
radish seed 3nsA-hit-NPT-3U-N look eU-cause-PT  
They showed us<sup>pe</sup> how they grind corn, they showed us<sup>pe</sup> how they  
crush radish seeds.
- b. *hamba sancabar, yoŋ-t-i-ha* <G5.54a>  
today Saturday stop-NPT-1p-N  
Today is Saturday, [that's the day] that we<sup>pi</sup> do not work.
- c. *ani m-phu-ŋa* *khāi-kha* *jagir*  
and 2POSS-elder.brother-OBL good:NPT-N civil.service  
*n-cok-piu-ʔ-ni-ga* *iʔ* <G5.27b>  
3A-do-U.BEN-NPT-NEG-2 Q  
And your elder brother won't arrange a good position for you?

This striking difference to past contexts is easily explained if the zero form is taken as a semantic zero.

In the past, the subjunctive in *-a* is the marked member of a privative opposition with the indicative and forms the Horn-scale (4.32) with it:

- (4.32) Past mood field: <SUBJUNCTIVE PAST, INDICATIVE PAST>

In line with the Sufficiency Principle, the past subjunctive is the best-fitting choice in nominalised clauses because the form fits precisely with the presuppositional status of these clauses. In the non-past, by contrast, the putative 'subjunctive' is a semantic zero and is therefore not semantically stronger than the indicative. The scale (4.32) simply does not hold in the non-past. Rather, the scale is reversed since now the indicative *-t* ~ *-yuk* is the marked member of the opposition:

- (4.33) Non-past mood field: <INDICATIVE NON-PAST,  $\emptyset$ >

Therefore, there is no pragmatic pressure to use the zero form rather than the indicative in clauses with presuppositional meaning. On the contrary, pragmatic sufficiency makes the indicative form the usual choice. Use of the unmarked member implicates — by the Minimisation Principle — that the situation is not indicative. This translates into a wide

range of functions, which I shall illustrate in the remainder. Notice that this is totally different from the highly specific and narrow semantics of the past subjunctive!

Frequently, the zero form implicates generic or virtual rather than actual reference. This is the case, for instance, in subordination. Instead of the indicative as in (4.31), one occasionally hears sentences like the following.

- (4.34) a. *jasso cog-i usso cok-kha.* <V148b>  
 how do-1p so do-N  
 [This monster is one that] would do exactly as we<sup>pl</sup> do.
- b. *jaile-cha yaŋ nak-kha ŋ-khemm-at-ni-ŋ.* <G4.59a>  
 ever-ADD DISTR ask-N NEG-hear-PT-NEG-1sA  
 I have never heard him begging.

The same implicature arises in *ki*-consecutivisation. The zero form suggests that the speaker is not fully committed to the reality of the event. By contrast, the indicative asserts the proposition. In (4.35a), this entails that the speaker will eat only if there is enough time. In (4.35b), he is much more definite about his intention.

- (4.35) a. *cama ca-ŋa ki khai-ʔ-ŋa.*  
 food eat-e SEQ go-NPT-e  
 I shall eat and go.
- b. *cama cai-ʔ-ŋa ki khai-ʔ-ŋa.*  
 food eat-NPT-e SEQ go-NPT-e  
 I will eat and go.

The following discourse examples corroborate the observation. The zero form indicates that the first conjunct has generic, non-specific validity (4.36a) or that it is a mere possibility (4.36b) or even that the speaker doubts the veracity of the proposition (4.36c).

- (4.36) a. *m-pa kina ka-ŋŋ-hiŋ-yu.* <G5.27b>  
 3nsS-grow SEQ iU-3nsA-cause.live-NPT  
 [The children] grow up and then they care for our<sup>pl</sup> living.
- b. *ŋke-riŋ cind-u-m-chi-m ki yeti phaida?* <III109.5>  
 1pPOSS-language teach-3U-1pA-nsU-1pA SEQ what profit  
 We may teach [the children] our language, but what's the use?



- c. han-na-cha tha n-tog-u-n-ga ki em-gari  
 2s-OBL-ADD knowledge NEG-know-3U-NEG-2 SEQ how-ABL  
 mun dhup-ka? <IV88>  
 talk talk:NPT-2

You don't even know about that, so how come you talk about it?

In independent sentences, the zero form contrasts with the indicative in not 'anchoring' the situation in any temporal or epistemic sense. The proposition is simply offered to the addressee in a maximally unmarked way. This brings the form close to the definition of the subjunctive mood marker *-a*. As we have seen before, however, it is advisable to take this affinity as a pragmatic rather than as a semantic phenomenon. On the other hand it is interesting to see how a conspiracy of Horn-scales and Gricean principles allows the Belhare mood system to be semiotically highly efficient and to complete the paradigm in Table 4.1 by exploiting the pragmatic power of zero forms.

The Sufficiency Principle, together with the Maxim of Relevance, induce from the zero form mostly directive and monitive values. The specific pragmatic effect depends mainly on the person to which the verbal inflection refers. If reference is to the first person singular, the zero form suggests deontic requests. The interrogative status need not be marked in this case (4.37), but often is (4.38).

- (4.37) a. yot-pir-u-ŋ? <G4.20b>  
 add-U.BEN-3U-1sA  
 Shall I add tea for him?
- b. na-cha ur-u-ŋ? <G3.28b>  
 DEM-ADD burn-3U-1sA  
 Shall I burn this one, too?
- (4.38) a. cia uŋ-si kar-a! ... ukt-u-ŋ i? <G5.6b>  
 tea drink-SUP come.UP-IMP bring.DOWN-3U-1sA Q  
 Come up to drink tea! ... Or shall I bring it down?
- b. cama at-na i? <II71>  
 food serve-1>2 Q  
 Shall I serve you some more rice?

Sometimes, the deontic effect is less specific (4.39a) or is almost absent (4.39b). In (4.39b), the zero form simply offers the proposition as a possibility, leaving it open whether the addressees should react or not.

- (4.39) a. abo emu cok-ŋa? <KP3b>  
 now how do-e  
 How shall I manage now?
- b. ŋka kisi lapb-itt-u-ŋŋ-ai! <G5.58a>  
 1s ask ask-ACCEL-3U-1sA-EMPH  
 I may just ask him!

With non-singular first person reference, the form usually has an adhortative function. This is indeed the only means available in Belhare to express an adhortative:

- (4.40) a. mit-ka-mit ca-i! <G3.54a>  
 think-RECIPR-think AUX-1p  
 Let's keep ourselves in memory! (said on departure)
- b. iŋa un-ch-u! <G3.64a>  
 beer drink-d-3U  
 Let's<sup>d</sup> drink this beer!

As with the deontic request implicature, the hortative connotation can be weakened. This occurs if one adds an epistemic qualification. Utterances like the following are quite common.

- (4.41) a. a-bicarr-e khar-i!  
 1POSS-opinion-LOC go-1p  
 In my opinion, we should go!
- b. khat-chi hola abo!  
 go-d probably now  
 Probably we<sup>d</sup> should go now!

With second and third person reference, the zero form is often used to warn the interlocutor not to allow the event to be realised. As in other uses, the proposition is suggested as a possibility, but an unwanted one. The examples in (4.42) illustrate this with second person reference.

- (4.42) a. pikg-a-ga-i!  
 fall-DOWN-2-EMPH  
 You may fall! (i.e., Watch out!)

- b. e ript-u-ga-i! <V156>  
INTERJ step.on-3U-2-EMPH  
Eh! you may stumble over [the microphone]!
- c. pheri yeti ka-lu-ga-i, mura <G4.23a>  
again what 1sU-tell-2-EMPH grandmother  
You may again tell me some [nonsense], grandmother!  
(i.e., Don't tell me nonsense again!)
- d. khan-lo cuŋ-ŋa si-chi-ga! <G4.47a>  
good-COM cold-OBL die-d-2  
You<sup>d</sup> may well die of cold! (i.e., Keep yourselves warm!)

Whereas in (4.42), the 'illocutionary target' (Levinson 1988) is the same as the subject or actor, it is different from the (third person) subject referent in the following examples. The target is often (4.43) but not always (4.44) the undergoer referent:

- (4.43) a. han-cha Kanchi-a m-pok-teī-ya-ga-i! <G4.57a>  
2s-ADD last.born:F-OBL 3A-leave.behind-TEL-RELINQ-2-EMPH  
Kānchī (i.e., your wife) may abandon you, too (if you continue to neglect her.)
- b. n-nari-e hi n-than-bi-ga! <G4.55b>  
2POSS-nose-LOC shit 3A-put.on-U.BEN-2  
They may make a fool of you. (Literally, 'they may put shit on your nose'.)
- c. wa-cilet-chi n-ript-u-n-chi-nn-ai wa-a  
hen-DIMIN-ns NEG-step.on-3U-NEG-nsU-NEG-EMPH hen-OBL  
ŋŋ-ok-ka! <G5.49b>  
3A-peck-2  
Don't step on the little chickens! The hen will peck you!
- (4.44) a. nas li! <G3.82a>  
destruction be  
It may break! (i.e., Watch out!)
- b. kochu lik-khatd-ai, jaskel chupt-an-u-m! <IV30>  
dog enter-TEL-EMPH secondary.door close-IMPp-3U-2p  
The dog may go inside! Close the door!

The pragmatic effect of warning is very dominant but can be cancelled by the addition of the restrictive particle *-etlo* (4.45). Without such marking, the zero form cannot be used as the functional equivalent of an imperative as in (4.45a).

- (4.45) a. his-sa his-sa khar-i-ga-tlo!  
 look-SS/T look-SS/T go-2p-2-RESTR  
 Just go carefully!
- b. n-dari hiŋ-ga-tlo! <G4.54b>  
 2POSS-moustache cause.to.live-2-RESTR  
 Just leave your moustache! (it suits you well)

Another way to cancel the warning effect is by adding an epistemic qualification as in the following examples.

- (4.46) a. han-na un misen nis-u-ga hola!  
 2s-OBL 3s know know-3U-2 probably  
 You probably know him!
- b. khat-ga-tlo-no.  
 go-2-RESTR-CONF  
 OK then, you may just go!

I conclude this survey of the functions of the zero form with an example in which the form fills a system gap in the imperative rather than in the subjunctive system. Reported speech in Belhare is marked by *-phu ~ -bu*, but this particle cannot be cliticised to imperatives (4.47a). To compensate for this constraint, the zero form is used (4.47b). The speaker reports an imperative which the addressee didn't hear.

- (4.47) a. \*khar-a-chi-bu  
 drink-IMP-REP  
 Drink it! he said.
- b. khat-chi-gak-phu. <LB051/8/18>  
 go-d-2-REP  
 Drink it! he said.

This last example again underlines the claim that the zero form is semantically unmarked and simply covers what is left over by the morphemes of the Belhare mood system.

### 4.3 Time reference and the definitive marker

According to Table 3.2, there are only two morphemes in the suffix slot *sf1*, the imperfective and the definitive. Whereas the imperfective combines with all exponents of *sf2*, the definitive marker *-yuk* is restricted to co-occurrence with the non-past marker. This means that *-yuk* in fact always appears in a sequence *-yukt*. Why should this sequence be bi-morphemic rather than a simple morpheme on a par with *-hett* or *-kett*, i.e. a filler of both *sf1* and *sf2*? The reason for this is that, apart from signalling 'definitive' mood, *-yuk-t* covers exactly the same range of temporal and modal values as *-t* alone, whereas *-hett* and *-kett* do not contain a comprehensive 'non-past' value but are restricted to present time reference (cf. Chapters 5 and 6). Therefore, a bi-morphemic analysis of *-yuk-t* avoids an unnecessary duplication of the definition of the non-past indicative category.

The *Gesamtbedeutung* of the morpheme *-yuk* is given in (4.48).

- (4.48) The definitive (*-yuk*) indicates that the speaker is confident about the realisation of the event.

With the sequence *-yuk-t*, the different contextual values of the non-past category translate into English in the form of a rather strong contrast.

In future contexts, the definitive translates as an 'imperious future', to take up a term from van Driem's (1987) Limbu grammar:

- (4.49) a. abo ŋka na-reĩ-yuk-t-u-ŋ. <IV120b>  
 now 1s abstain-TEL-DEF-NPT-3U-1sA  
 Now I will abstain [from alcohol].
- b. cheb-yuk-t-u-ŋ. <G3.37b>  
 test-DEF-NPT-3U-1sA  
 I am going to test [the fresh *raksi*].
- c. kham n-sub-yuk-ni. <G5.4b>  
 soil NEG-slide-DEF-NEG  
 The soil will definitely not slide away here.
- d. yo-na-ŋa maʔ-yuk-t-u <G4.18>  
 ACROSS:TRANSP-ART-OBL narrate-DEF-NPT-3U  
 The [cassette recorder] over there will tell the story!

- e. khicci mun dhub-yuk-ŋa. <G5.28a>  
 in.a.moment talk-DEF-e<sup>1</sup>  
 I will talk [to them] in a moment! (i.e., Don't be so impatient!)

In present time contexts, by contrast, the definitive form translates as an indicator that the speaker is definitely sure about a generic possibility. This is exemplified by the examples in (4.50).

- (4.50) a. ŋka mun dhup-ma-ha sa?-yuk-t-u. <IV100b>  
 1s talk-e-N take.out-DEF-NPT-3U  
 [The cassette recorder] is able to reproduce what I say!
- b. mi-ŋ-tub-yuk-t-u-n. <X10>  
 NEG-3nsA-understand-DEF-NPT-3U-NEG  
 [The women] do not understand, I tell you!
- c. Dhankute-li-chi un-chi-riŋ sappe tub-yuk-t-u-ŋ. <G5.40b>  
 Dh.-ORIG-ns 3-nsPOSS-language all understand-DEF-NPT-3U-1sA  
 I can understand all of the Dhankuṭā people's language!

Another example is (4.51), where non-past *-t* is deleted because it is extrasyllabic:

- (4.51) i-na menn-e?wa motitel ges yuŋ-yuk lo!? ...  
 DIST-DEM thing-LIKE oil gas be(loc)-DEF OK  
 ho i-khe-?wa... <IV127b>  
 RESUM DIST-MDEM-LIKE  
 There is such a thing with gasoline, right? ... OK, a thing like that....

Here, the speaker fails to recall the word *istoph* (Engl. *stove*) and uses a definitive to underline the accuracy of his circumlocution. The 'non-word' *men* is the general place holder for something that one cannot recall or does not want to utter (cf. Engl. *thing*). The resumptive marker *ho* (< Nep. *ho* 'is') after the pause takes up the argumentation line after the addressee has signalled his understanding non-verbally (by shaking his head in the typical South Asian manner).

Obviously, the difference between (4.49) and (4.50–51) does not reflect emic categories, but results from realising the same category in different contexts. The definitive always has the single meaning of indicating the speaker's confidence in a proposition. Often, this is exploited to signal a warning as in the following. Sentence

<sup>1</sup> The non-past marker *-t* is deleted here for prosodic reasons discussed in Chapter 3.

(4.52b) was used in an argument to convince the addressee that he should tell the mythological stories he knows.

- (4.52) a. *i-baŋ pok-kheŋs-e-i-ga ki ub-yuk-na! lur-he-chi.* <G5.42a>  
 one-HUM rise-DIMIN-PT-2p-2 SEQ beat-DEF-1>2 tell-PT-nsU  
 ‘If one of you rises even a little bit, I will beat him up!’ [the gangster] told them.
- b. *mund-iʔ-yuk-t-u-m!* <IV109a>  
 forget-ACCEL-DEF-NPT-3U-1pA  
 We will forget it! (if you don’t tell us the stories.)

In contexts like these, it would be very inefficient to use a simple non-past form. Simple forms cannot be used to convey a warning.

The marker *-yuk* is a filler of suffix slot *sf1*, which I have labelled as containing ‘aspect’ markers (cf. Chapter 3). The semantics of *-yuk* is admittedly not ‘aspectual’ in a narrow sense of the term, since the marker specifies the speaker’s epistemic stance rather than his or her perspective on temporal structure. However, on a pragmatic level, the form acquires an aspectual quality in addition to its epistemic feature. Definitive forms are ‘non-cursive’ (non-imperfective, non-temporary, and non-inceptive). The form can be used in an explicitly delimitative situation bounded by an adverbial qualification like *dui ghanta* ‘two hours’ (4.53a). This is impossible with temporary (4.53b) and imperfective forms (4.53c):

- (4.53) a. *dui ghanta khoŋ-yuk-ŋa kinahungo khai-ʔ-ŋa.*  
 two hours play-DEF-e SEQ go-NPT-e  
 I shall play for two hours but then I will go.
- b. \**dui ghanta khoŋ-het-na kinahungo khai-ʔ-ŋa.*  
 two hours play-TEMP-e SEQ go-NPT-e  
 I shall be playing for two hours but then I will go.
- c. \**dui ghanta khoŋ-yakt-he-ŋa kinahungo khai-ʔ-ŋa.*  
 two hours play-IPFV-PT-e SEQ go-NPT-e  
 I was playing for two hours but then I went.

This does not imply that the definitive is a perfective form. It co-occurs with states like *tup+t-* ‘understand’ (4.50b,c) without implying a delimitative reading. This would be atypical for a perfective. The definitive is not marked aspectually. Rather, it has similar properties to the simple form (the aspectual zero form of the system). This form, and its

contrast with the cursive aspects, i.e., with the temporary, imperfective and inceptive forms will be discussed further in Chapter 7. First, however, I shall explore the semantics of the cursive markers themselves.



## Chapter 5

### Imperfective vs. temporary aspect and the pragmatics of time

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In Chapter 3, the *-yakt* ~ *-yau* allomorphy of the imperfective marker was shown to result historically from regular diphthongisation of the verbal etymon \**yak+t-* 'stay'. In synchronic analysis, however, the two variants are no longer due to stem alternation but are better seen as allomorphs of a grammaticalised aspect marker in suffix slot *sf1*, on a par with the third allomorph, *-ya*. The historical background of *-yau*, however, has the effect that this allomorph is now restricted to co-occurrence with the non-past marker *-t*. The question that now arises from the synchronic point of view is whether one should not treat *-yau* as a distinct morpheme, restricted to non-past forms, just as the definitive marker *-yuk* is restricted to such forms (see Section 4.3 in the preceding chapter). This would leave us with a second morpheme, whose allomorphs *-yakt* and *-ya* would be tied to affirmative and negative past forms, respectively. A first glance at examples seems to favour such an analysis — which was indeed my first guess — since *-yau* in the non-past apparently has functions rather different from *-yakt* in the past. The most prominent functions of *-yau* in the non-past are continuative (5.1a) or irony (5.1b), whereas *-yakt* in the past is fairly similar to an imperfective in Romance or Turkic languages, describing ongoing events or states (5.2a) and typically occurring in the *Inzidenzschema* (5.2b) (cf. Chapter 2). (Notice that the non-past marker *-t* is frequently elided after *-yau* for reasons discussed in Chapter 3).

- (5.1) a. *yuŋ-yau-t-i.*  
sit-IPFV-NPT-1p  
We just keep sitting there.
- b. *ai, yuŋ-yau!*  
INTERJ sit-IPFV  
Ah, [you think] he is sitting [there]! (= Sure he isn't)
- (5.2) a. *khim u-rak-ge yuŋ-yakt-he.*  
house 3POSS-interior-LOC sit-IPFV-PT  
He was sitting in the house. (Nep. *basdaithiyo* or *basirahekothiyo*.)

- b. a-tak-ŋa            kancha his-si uŋs-a-naa,            tas khoŋ-yakt-he.  
 IPOSS-friend-OBL last.born see-SUP come.down-SUBJ-TOP card play-IPFV-PT  
 When my friend came down to see Kānchā, he was playing cards.

Suspiciously absent from the functions of non-past *-yau* forms are ‘progressive’ readings with current time reference, i.e., the forms do not respond to the classical aspectological test question ‘What are you doing here right now?’.

Given this functional distribution, the alternative hypothesis that I want to put forward in this chapter, viz. that *-yau* and *-yakt* ~ *-ya* are allomorphs of a single imperfective morpheme, translates into two specific claims. First, the value of the imperfective in the non-past indicative is the same as in the other tense and moods, but it is functionally specialised because in the non-past the form competes pragmatically with another aspect marker expressing ‘progressive’ events and ‘durative’ states at the time of speech. This is the temporary marker in *-hett*. Second, in past forms, the imperfective morpheme can be shown to cover all meanings that are functionally distinguished in the non-past without assuming a neutralisation of meanings or postulating an additional semantic feature for *-yakt*. In other words, the Belhare imperfective is a category that undergoes pragmatic but not semantic specialisation in the non-past indicative. I adduce evidence in favour of this hypothesis by studying first the functional ranges of the imperfective (Section 5.1) and of the temporary (Section 5.2), before comparing their values in pragmatic competition (Section 5.3).

### 5.1 The semantics of the imperfective

On the monomorphemic account I want to defend here, the *Gesamtbedeutung* of the imperfective can be described as in (5.3):

- (5.3) The imperfective portrays a state or event as developing at the moment of reference.

By ‘moment’ or ‘time of reference’, I do not necessarily mean a temporal point of assertion. In keeping with the modal character of time reference in Belhare, I rather use the notion in a general sense for the ‘window’ on a modally or temporally dissociated or associated world in which the proposition is claimed to be valid. In moods/tenses other than the indicative non-past, the imperfective is the only category that focusses on the continuous or developing nature of a state or event. Its use is illustrated by the following

examples in the various moods. In (5.4) through (5.9), the (a)-examples illustrate static, the (b)-examples dynamic predicates.

The first pair of examples illustrates the imperfective in the indicative 'past tense'. (The copula *nyuŋgase* 'they were' that appears in the second part of (5.4a) is irregular and does not allow any aspect marking)

- (5.4) a. phuturu-ro n-niŋ-yakt-he, ŋkeŋ bhanda cip  
 white-ID 3nsS-look.like-IPFV-PT 1pe COMP a.bit  
 beŋle n-yuŋgase. <IV.130b>  
 different 3nsS-were  
 They looked white, they were a bit different from us.
- b. nua-ŋa hi mai-ett-he ... mi tub-yakt-he-ŋ. <G5.23b>  
 bird-OBL shit 1sU-shit.on-PT fire blow.up-IPFV-PT-1sA  
 A bird shat on me ... [while] I was making fire by blowing it up.

The question in the following subjunctive example (5.5a) was offered as an alternative to going to the market. The form denotes the possible continuation of the state which already obtained at the moment of utterance. In (5.5b), where the speaker recounts the dramatic events in a movie, the non-past tense has an effect similar to the *praesens historicum*.

- (5.5) a. ŋka yuŋ-yak-ŋa i?  
 1s stay-IPFV-e Q  
 Shall I stay at home?
- b. kha?-yak-naa i-gira bhirr-e a-ha?-yu. <G5.41b>  
 go-IPFV-TOP one-NON.HUM rock-LOC fall-TEL-NPT  
 While he was proceeding, [the helicopter] falls into a rock.

The following examples are in the optative mood which signals the speaker's agreement on the desirability of an event (see Bickel 1995a: 109 – 113). The speaker agrees with the continuation of the state (5.6a) or process (5.6b). Notice that in (5.6a), final /k/ of the imperfective morpheme is deleted because of its word-final position (see Section 3.3 in Chapter 3).

- (5.6) a. ag-yuŋ-ya! <Sep2/V7.4>  
 OPT-stay-IPFV  
 He may stay here!

- b. ak-kob-yakt-u i? <X15>  
 OPT-pick.up-IPFV-3U Q  
 Do you agree if [the cassette recorder] keeps recording?

In the past subjunctive, the imperfective is often used to refer to states and events that form the background to a punctual event (encoded by the simple form):

- (5.7) a. ni-yakt-u-lok-to n-niu-?-na-n lur-u-naa-be... <IV105a>  
 see-IPFV-3U-COM-ID NEG-see-NPT-1>2-NEG see-3U-COM-ID  
 If he had said "I can't see you" when seeing him, ...
- b. kha?-yakt-a-ŋ-na mai-lur-he.  
 go-IPFV-SUBJ-e-TOP 1sU-tell-PT  
 He told me while I was going.

Imperative forms suggest that a proposition should become valid in the future. Accordingly, an imperfective imperative suggests that a situation should endure in the future or continue to endure:

- (5.8) a. ŋka ma-ŋ-cep-kha thaŋ-e yuŋ-yakt-a! <FS19>  
 1s 1sU-3nsA-cut-N place-LOC stay-IPFV-IMP  
 Stay at the place where they will kill me!
- b. na-ro hola, thaŋ-yakt-a ai! <G5.59b>  
 DEM-ID probably go.up-IPFV-IMP EMPH  
 This is [the right trail], I think. Keep going up!

Citation forms can occur in the imperfective, too. This is exemplified by the following pair of sentences. The meaning again includes a connotation of continuity similar to what can be observed in (5.8):

- (5.9) a. yuŋ-yak-ma khe-yu.  
 stay-IPFV-CIT must-NPT  
 One must stay home.
- b. abo dherai, yeti ma?-yak-ma? <XI103>  
 now much what narrate-IPFV-CIT  
 Now [that was] a lot, what should I further narrate?

In agreement with many other languages, the imperfective is particularly suited for encoding repeated events because they have temporal properties similar to states (cf.

Chapter 2). The following examples illustrate this in the past indicative (5.10a), the past negative (5.10b), the past subjunctive (5.10c) and the citation form (5.10d).

- (5.10) a. kek biskut ta?-yakt-he <G5.31a>  
 cake biscuit bring-IPFV-PT  
 He brought cakes and biscuits [again and again to the shop for selling].
- b. mi-ŋ-maĩ-ya-att-u-n! <IX3>  
 NEG-3nsA-finish-IPFV-PT-3U-NEG  
 They never finished it!
- c. i-na Rauane jogi pheri i-khe-ro yaŋ  
 DIST-DEM R. mendicant again DIST-MDEM-ID DISTR  
 nak-ca-yakt-a-lok-to hatta-patta bir Hanuman m-paŋs-e-ch-u,  
 ask-eat-IPFV-SUBJ-COM-ID IDEOPH brave H. 3nsA-send-PT-d-3U  
 Ram Lachuman-chi-ŋa sat sammundra-e. <KP61a>  
 R. L.-ns-OBL seven ocean-LOC  
 While that Rāvaṇa was thus begging around as a *yogī*, Rām and  
 Lakṣmaṇ quickly sent the brave Hanumān to the Seven Oceans.
- d. thali-et-to ca-ma khei-kha mu, yeti topara  
 plate-LOC-ID eat-CIT must:NPT-N OBV what leaf.plate  
 thog-yak-ma?! <IX14>  
 stitch-IPFV-CIT  
 One should eat from [metal] plates! what [are we] always stitching  
 together leaf plates?!

In the preceding examples, the events, states and iterations are all temporally unlimited. This is why I translate them occasionally with the English *keep*-continuative construction, especially in directive speech acts (cf. *tharyakta* ‘keep going up!’ in (5.8b)). The continuative reading is purely pragmatic, however, and is not encoded by the imperfective. In past contexts, the imperfective morpheme can describe temporally limited states (5.11) or events (5.12).

- (5.11) a. iti u-yakt-he-ŋa. <G5.28b>  
 this.much three.dim-IPFV-PT-e  
 I was this big [at that time].
- b. namniŋ chimmetniŋ ne-e yuŋ-yakt-a-ha. <G5.28a>  
 last.year year.before.last.year LDEM-LOC be(loc)-IPFV-SUBJ-N  
 It’s that he used to live here years ago.

- c. i-na bela iŋa uŋ-ma n-nu-ya-at-ni. <X11>  
 DIST-DEM time beer drink-CIT NEG-allowed-IPFV-PT-NEG  
 At that time it was not allowed to drink beer.

- (5.12) a. caualis-samma Japan-lo laraĩ co-akt-he-i-ŋa.<sup>1</sup> <IV123b>  
 44-UNTIL J.-COM war do-IPFV-PT-1p-e  
 We<sup>pe</sup> were fighting against Japan until [19]44.

- b. khaʔ-yakt-he-ŋa tʌrʌ arko a-tak chitt-he-ŋ  
 go-IPFV-PT-e but other 1POSS-friend meet-PT-1sA  
 un-na list uu-s-u-ha. <G4.38b>  
 3-OBL list bring.DOWN-TR.PERF-3U-PERF  
 I was going [to the college] but I met another friend of mine [who] had  
 brought down the list [with the exam results].

With iterated events too, a notion of temporal limitation is fully compatible with past imperfective forms:

- (5.13) a. Kancha-rok-phu choĩ-yakt-he. <XI91>  
 last.born-ID-REP refuse-IPFV-PT  
 Kānchā used to refuse.
- b. asenle curŋ-e uŋ-yakt-he-ŋ, hambasen ŋŋ-uŋ-ʔ-ni-ŋ. <G5.49b>  
 before cold-LOC drink-IPFV-PT-1sA these.days NEG-drink-NPT-NEG-1sA  
 Before in the cold season, I used to drink [alcohol], these days I  
 don't drink.
- c. wancabaŋŋ-e tas khoŋ-yakt-he. <G4.29b>  
 youth-LOC card play-IPFV-PT  
 He used to play cards in his youth.
- d. kami-a khoiʔ-s-u-ha-cha ca-yakt-he-m. <KP27b>  
 black.smith-OBL touch-TR.PERF-3U-N-ADD eat-IPFV-PT-1pA  
 We<sup>pi</sup> used to eat even what a blacksmith had touched.

Thus, the continuative connotation noted above is not inherent to Belhare imperfectivity, salient though this function appears to be outside of contexts with past time reference.

However, in the tense/mood where the imperfective competes with other cursive forms, to wit, in the non-past system, the form does implicate unlimited continuation of an event that has started before the time of reference. This is exemplified by (5.14a) with

<sup>1</sup> For the deletion of root-final /g/ see Chapter 3.

a stative predicate, by (5.14b) with a dynamic event and by (5.14c) with a repeated event. Example (5.14d), which is from the same myth as (5.14c), but told by a different speaker, combines the iteration of a punctual event (*hekma* ‘to cut’) with an ongoing event of growing (*tumma* ‘to ripen, grow’).

- (5.14) a.  $\Lambda$ ni yeb-yau-ka! <G4.38a>  
and stand-IPFV:NPT-2  
And you keep standing [around, instead of helping me]!
- b.  $\eta$ -khi-yau-etlo <G5.45a>  
3nsS-quarrel-IPFV:NPT-RESTR  
They just keep on quarrelling [today].
- c. *hetterika*, *dher yeti-ha na-leŋ cums-u-m-cha*  
EXCLAM much what-GEN DEM-DIR bind.up-3U-1pA-ADD  
*i-na-leŋ jatan mett-u-m-cha we-yau-etlo.* <KP20a>  
DIST-DEM-DIR industry do-3U-1pA-also spill.over-IPFV:NPT-RESTR  
Oh God!, [the paddy] just keeps spilling over, even if we bind together  
much to this side and also if we are industriously busy [binding] to that  
side.
- d. *yaha?wa  $\eta\eta$ -heg-yau-t-u, tum-yau, yeti ...*  
paddy 3nsA-cut-IPFV-NPT-3U ripe-IPFV:NPT what  
*yaha?wa  $\eta\eta$ -hek-koĩ-yau-t-u, tum-sa-bu ka?-yu.* <IV119A>  
paddy 3nsA-cut-SDA-IPFV-NPT-3U ripe-SS/T-REP come.UP-NPT  
They keep cutting the paddy, it keeps growing... They keep cutting the  
paddy everywhere, it comes up growing.

We will see later in this chapter how the continuative effect arises from a quantity-implicature due to the opposition of the imperfective with the temporary (*-hett*). Before elaborating on this analysis, however, I first discuss the meaning and distribution of the temporary on its own.

## 5.2 The semantics of the temporary aspect

As is evident from the overview given in Table 3.2, the temporary aspect marker is incompatible with a suffix slot sf2 filler, i.e., with any overt tense or mood marker. The temporary is inherently specified for present time reference. Therefore, the marker is

incompatible with an adverbial indicating future (5.15a). This is different from the non-past tense marker which is neutral to the present vs. future distinction, be it with (5.15b) or without (5.15c) imperfective marking (see Chapter 4):<sup>1</sup>

- (5.15) a. \*waremba tas khoŋŋ-hett-i  
 tomorrow card play-TEMP-1p  
 We<sup>pi</sup> will be playing cards tomorrow.
- b. waremba tas khoŋ-yau-t-i  
 tomorrow card play-IPFV-NPT-1p  
 We<sup>pi</sup> will be playing cards tomorrow.
- c. waremba tas khoŋ-t-i  
 tomorrow card play-NPT-1p  
 We<sup>pi</sup> will play cards tomorrow.

As to its aspectual value, *-hett* resembles to some degree the usage of the English *be...-ing* imperfective. This is especially apparent when we look at the effect that *-hett* has on static predicates. Here, the temporary signals that the state has only temporary validity, i.e., that it is asserted for a limited period of time and does not extend beyond that (cf. the remarks on the English imperfective in Chapter 2). The following states are held to be valid only for a restricted period.

- (5.16) a. ŋkenchiŋ-ŋa-na cand-he-ch-u-ŋa, m-bhakg-etlo  
 1de-OBL-TOP eat.unexpectedly-PT-d-3U-e 2POSS-part-RESTR  
 so-het-ch-u-ŋa. <KP2a>  
 wait-TEMP-d-3U-e  
 We<sup>de</sup> ate already [our part], now we are just guarding your part.
- b. i-gira musta cog-a ŋŋ-hi-hett-u-n, hera! ...  
 one-NHUM land consolidation do-SUBJ NEG-able-TEMP-3U-NEG see! (Nep.)  
 koi-ŋa dher jʌsto... abo yeti limbu-chi-ŋa mi-ŋ-pi-hett-u-n. <KP33b>  
 some-OBL much like.this now what L.-ns-OBL NEG-3nsA-allow-TEMP-3U-NEG  
 Now they cannot make one single land combination, see! ... some,  
 actually quite some... now what [to do?] the Limbu people do not allow  
 them (to measure out the land).

The implication of the temporary suffix is that the event has one or more definite boundaries in time. In the preceding examples, the lexical Aktionsart of the verbs inclu-

<sup>1</sup> Some verbs are exceptional in this respect. See Chapter 12. 2 for discussion.



des both an initial and a final boundary. As will be discussed in Chapter 12, other stative predicates include only an initial boundary, i.e., they have an ‘ingressive-phasal’ Aktionsart. With verbs like *misen nima* ‘to (get to) know’ (5.17a), *phetma* ‘to (come into) bloom’ (5.17b) or *ama* ‘to be(come) related to’ or (5.17c), the temporary highlights this boundary as well as the subsequent state (Example (5.17b) refers to a moment just after a wedding when new family relations are established.):

- (5.17) a. *namniŋ-et-nahuŋ misen ni-hett-u.*  
 last.year-LOC-ABL know-TEMP-3U  
 He has known him since last year.
- b. *i-net-nahuŋ-go tori pahēlo phetd-het iti bela. <V154>*  
 DIST-LDEM:LOC-ABL-PTCL mustard yellow bloom-TEMP this time  
 And then the mustard came into yellow bloom and is in bloom now.
- c. *ŋka-ha a-phu a-het-ka.*  
 1s-GEN 1POSS-elder.brother related-TEMP-2  
 From now on you are my elder brother.

The initial boundary can precede the moment of reference for which the state is claimed valid (5.17a–b). If the non-past marker is taken as referring to a future state, the boundary can also fall together with the moment of reference (5.17c). It is important to notice that *namniŋetnahuŋ* ‘since last year’ in (5.17a) merely specifies the time of the transition of the initial boundary. It does not introduce the boundary into the semantic representation of the sentence. If this were the case, we would expect that *namniŋetnahuŋ* could just as well introduce a boundary into a plain statement without temporary aspect marking (5.18a). Yet this is impossible (5.18b).

- (5.18) a. *misen niu-t-u.*  
 know-NPT-3U  
 He knows him.
- b. \* *namniŋ-et-nahuŋ misen niu-t-u.*  
 last.year-LOC-ABL know-NPT-3U  
 \* He knows him since last year.

As suggested by the English translation, the semantic structure of (5.17a) is almost like a perfect and can be paraphrased by such a form:

- (5.19) namniŋ-et-nahuj misen niu-s-u-ha  
 last.year-LOC-ABL know-TR.PERF-3U-PERF  
 He has known him since last year.

Whereas the temporary focusses on the current state, however, the perfect refers to the past inception of this state and additionally claims a particular current relevance of this transition (see Chapter 9). The difference seems impossible to translate into English.

Iterated events are also compatible with the temporary in Belhare. Although similar phenomena occur in English (cf. examples (2.2), e.g., *At that time, I was working the night shift*) they seem to be far more common in Belhare and other languages (cf. Bertinetto 1994). The following examples represent a very common use of the temporary. In all cases, the form suggests that the iteration is only temporarily valid, to wit, only at some interval including the moment of reference. In translation, this often evokes a qualification by expressions like 'these days' or 'currently'. (The question in (5.20c) is asked because the speaker did not fully understand a previous proposition. Example (5.20d) is from a narrative where the speaker recounts what she witnessed during a study tour. She refers to an experiment performed at an agricultural research institute that she visited.)

- (5.20) a. na-kha-chi-a lujghek ŋ-khu-het-ch-u. <G5.32a>  
 DEM-ns-d-OBL stone 3nsA-carry-TEMP-d-3U  
 [These days,] they<sup>d</sup> are carrying stones [every day].
- b. ŋŋ-hitd-hett-u. <G5.51b>  
 3nsA-watch-TEMP-3U  
 [Now, during the monsoon,] they are observing [the movements of the soil].
- c. A: yeti kam chuti li-yu?  
 what work holiday be-NPT  
 What is the work that he gets holiday from?
- B: yu! Patle Kholā kam n-cokg-het-kha-ha. <G5.27b>  
 ACROSS P. Kh. work 3nsA-do-TEMP-N-GEN  
 From the [work] that they are currently doing over there in Pātle Kholā.

- d. unchik-ŋa bicar n-cokg-hett-u-ha, bastu ʌsai jastai  
 3ns-OBL thought 3nsA-do-TEMP-3U-N livestock appropriate how:EMPH  
 yuŋ-ma-lagi, i-net-nahuŋ-go anusandhan  
 keep-CIT-BEN DIST-LDEM:LOC-ABL-PTCL research  
 n-cokg-hett-u.<K18f>  
 3nsA-do-TEMP-3U  
 They are making considerations, in order to [know] how to keep the  
 livestock in an appropriate way. For that, they are doing this research.

The temporal qualifications suggested in the translation are frequently made explicit, as in the following examples. The adverb *hambasen* 'these days, nowadays' is a contraction of *hamba* 'today' and *asen* 'yesterday'.

- (5.21) hambasen labar-ŋaha kʌsai kʌsai-na  
 these.days rubber-GEN how:EMPH how:EMPH-TOP  
 ŋ-khu-hett-u. <IV127a>  
 3nsA-carry-TEMP-3U  
 Nowadays, they are carrying some kind of plastic [water bottles].

Sometimes, the evocation of temporal limits is less pronounced. Propositions such as the following specify that an iterated event holds at the moment of reference, and is restricted to a stretch of time around this moment. (5.22a) refers to a child and in (5.22b) the speaker asserts that people have recently started to produce a certain kind of fashionable material in Kāthmāṇḍū.

- (5.22) a. dud uŋŋ-het-kha i? <V5:02>  
 milk drink-TEMP-N Q  
 Is [it a child] that is already drinking (buffalo) milk?
- b. Kathmandu-et-cha ŋŋ-akg-hett-u. <G5.42a>  
 K.-LOC-ADD 3nsA-weave-TEMP-3U  
 Now they are also weaving [this kind of material] in Kāthmāṇḍū.

While the Belhare temporary shares some properties with its English equivalent in the application to states and iterations, the aspectual notion is quite different when it comes to dynamic predicates. The notion of temporariness even holds for dynamic events and belongs to the *Gesamtbedeutung* of the form. (Notice that 'temporariness' is dependent on the Aktionsart, especially on the difference between delimitative and ingressive-phasal predicates as shown in (5.17) above. This issue will be taken up in Chapter 12.)

- (5.23) The marker *-hett* signals that a state or event is developing in the present, but that this development is temporary in a way dependent on the Aktionsart.

In English, there does not seem to be any evidence for temporariness when *be... -ing* is applied to dynamic predicates. This suggests that in this language the 'temporary' value with static predicates is entirely contextual (see Chapter 2). In Belhare, by contrast, temporary restriction is a semantic entailment. As much as with states and iterations, activities in the Belhare temporary are characterised as being valid only during a limited time stretch in the present. This often suggests a contrast to what has happened before and what will happen afterwards:

- (5.24) a. Tirsuli-et-nahuṅ-go ekdam lambu-cha bʌn-ap n-cokg-hett-u.<V151>  
T.-LOC-ABL-PTCL heavily road-ADD<sup>1</sup> make-INT 3nsA-do-TEMP-3U

Now they are also very much engaged in repairing the road from Tirsuli onwards.

- b. ŋke-riti u-temm-e wa-hett-i. <KP35a>  
1pPOSS-ceremony 3POSS-UP-LOC wander-TEMP-1p

Now we<sup>pi</sup> are living according to our *rīt*.

(Literally, 'Now we<sup>pi</sup> are wandering on top of our *rīt*.')

- c. wareṅ-na koni, abo ŋke-Belhara phitd-e yeti  
in.future-TOP IGNOR now 1pPOSS-B. all.place-LOC what  
la umm-hett-i, yeti-e maṅ menn-e wa-hett-i? <X42>  
walk walk-TEMP-1p what-LOC deity 'thing'-LOC wander-TEMP-1p

I don't know about the future, but now, what [is the rule by which] we are walking about all over Belhārā, according to what religious things are we living?

If the verb has a telic or inchoative Aktionsart (on which see Chapter 12), the temporary strongly suggests that the event is soon to reach its final boundary. This makes the form suitable for soliciting a quick response by the addressee (5.25a), for warning that it might be too late if one does not speak out (5.25b) or for announcing the impending completion of an event (5.25c).

- (5.25) a. yu! cua ann-hett-u, dutd-e! <G5.26a>  
ACROSS water fill.in-TEMP-3U milk-LOC

Hey look over there! now he is filling in the water, into the milk!

<sup>1</sup>Like most enclitic particles in Belhare, the scope of *-cha* 'also, even' is not necessarily limited to its host constituent. In this example, *-cha* has clausal scope.

- b. e! Boku u-ma! ŋka munn-hett-u-ŋ-no, waremba  
 INTERJ B. 3POSS-mother 1s forget-TEMP-3U-1sA-CONF tomorrow  
 yu-ro khat-ma p̄arne, Patle-e. <G5.24a>  
 over.there-ID go-CIT EXIG P.-LOC  
 Hey, Boku uma! I am certainly about to forget it: tomorrow [we] should  
 go over there, to Patle.
- c. ba i-gira wa in haŋ-bi-ma khes-e... khat-ga-tlo lu-si,  
 or one-NHUM hen egg send-U.BEN-CIT must-PT go-2-RESTR tell-SUP  
 thaŋŋ-hat-ma hir-e... bharkhari wa inn-het. <G5.33b>  
 go.UP-TEL-CIT finish-PT just.now hen lay.egg-TEMP  
 Or we should send some eggs for them... just go to tell him, he has  
 already gone on [the truck]... Just now a hen is laying an egg.

In (5.25a), the speaker wanted the addressee to quickly get his camera ready in order to document the practice of mixing milk with dirty water before selling it. (5.25b) is a justification for telling something. In (5.25c), finally, the temporary signals that the eggs are almost there and can be given away in a minute. In this situation a neighbour is about to leave and the speaker suggests to her husband that he should get a traveller to take some eggs with him in order to send a present to relatives living far away.

A side-effect of these uses of the temporary is what Johanson (forthcoming) calls 'actional density' or 'high focality'. In situations like (5.25), temporary restriction adds a connotation of immediacy, high actuality. From the over-all distribution of the temporary, especially from its use with states and iterations, it seems evident, however, that 'actional density' is an implicature and not a semantic feature.

The inclusion of an initial and/or a final boundary makes the temporary suitable for use in a sequence of events (5.26) or of events and states (5.27). In English, this seems possible only if the sequential clauses are separated from each other by a 'boundary signal' like *now* or *then* (also cf. (5.17b) above).

- (5.26) a. la, na-na pheri i-khe-ʔwa ca-het kina-ulo  
 INTERJ DEM-TOP again DIST-MDEM-LIKE eat-TEMP SEQ-CONTR  
 pheri bolleu li-het-kha. <FS32>  
 again strong become-TEMP-N  
 Look! Again he is eating like this and then he will be getting stronger  
 again.
- b. mul-lamma kar-he kina ca-hett-u. <VIII34a>  
 DOWN-ABL come.up-PT SEQ eat-TEMP-3U  
 [The cow] came up and now it is eating.

- (5.27)   thore thore rana-chi nyuŋŋa.   ʌkkaldum n-lis-e  
 few   few   R.-ns   they. are   misfortune   3nsS-be-PT  
 ki n-yuŋŋ-het. <X32>  
 SEQ 3nsS-be(loc)-TEMP

There are very few Rānās [left]. They became unfortunate and now they are sitting [unfortunate].

This does not entail, of course, that the imperfective is incompatible with the idea of consecutivisation. The form is completely unmarked in this respect, and, in the past tense, the imperfective is the only cursive aspect available:

- (5.28)   a.   i-net-nahuŋ-go                    u-koŋma                    u-cha-chi-a-cha  
 DIST-LDEM:LOC-ABL-PTCL 3POSS-MoBroWi 3POSS-child-ns-OBL-ADD  
 n-tas-e                    kina   m-phig-yakt-he-bu.  
 3A-reach-PT               SEQ   3A-pluck-IPFV-PT-REP  
 na   piccha   lab-yakt-u-lo                    m-phig-he. <FS35>  
 DEM   child   hold-IPFV-3U-COM   3A-pluck-PT

Then the children of his aunt arrived there, too, and then they were picking [fruit]. They picked as the child was holding down [the branch.]

- b.   khut-khatt-he   ki   khaʔ-yakt-he,   ibanŋ   maʔi-a.  
 steal-take-PT   SEQ   go-IPFV-PT           one   person-OBL  
 i-net-nahuŋ-go                    saikall-e   i-net-nahuŋ-go  
 DIST-LDEM:LOC-ABL-PTCL bicycle-LOC   DIST-LDEM:LOC-ABL-PTCL  
 n-tokt-he           kina   kos-e. <IV113b>  
 3A-hit.against-PT SEQ   fall-PT

Somebody stole [the apples] and then he was going. Then, [he was riding] on a bike, and then he hit against something and fell.

The inclusion of temporal limitation makes the temporary unsuitable for the *Inzidenzschema*, i.e., the form cannot depict the background against which another event occurs. In such contexts, only the imperfective is a possible choice:

- (5.29)   a.   he-na            bela tas-u-m-cha,            kam cog-yau-t-u.  
 which-ART time reach-3U-1pA-ADD work do-IPFV-NPT-3U  
 Whenever we reach [his place], he is working.
- b.   \*he-na            bela tas-u-m-cha,            kam cokg-hett-u.  
 which-ART time reach-3U-1pA-ADD work do-TEMP-3U  
 Whenever we reach [his place], he is working.

This constraint also holds when the temporary occurs in the subordinate clause. Topic clauses in *-naa* signal temporal ('when', Nep. *-da, kheri*), causal ('since', Nep. *-le*) or conditional ('if', Nep. *bhane*) interclausal relations. Since *-hett* cannot establish an relation of temporal inclusion, a 'when' reading is excluded (5.30a). A 'when' reading with cursive aspect is possible only with the imperfective (*-yakt*) marker (5.30b).

- (5.30) a. Maiti-pa-a cama pakg-hett-u-na-ŋa han-na cece pir-u-chi!  
 M.-father-OBL food serve-TEMP-3U-TOP-OBL 2-OBL meat give-3U-nsU  
 Since Maiti's father is serving the rice, you should distribute the meat!
- b. Maiti-pa-a cama pag-yakt-u-na-ŋa ta-hatt-he-ŋ  
 M.-father-OBL food serve-IPFV-3U-TOP-OBL reach-TEL-PT-1sA  
 I arrived there when Maiti's father was serving the rice.

In the few textual instances where a construction with temporary aspect marking **could** be analysed as *Inzidenzschemen*, or, at least, would look similar to such schemes, the temporary does not portray a background. Rather, the form describes a situation as specifically valid only at a restricted temporal interval which happens to include the incident event. Stylistically, this produces an effect of vividness and surprise. In the following narrative examples, the temporary serves as a *praesens historicum*.

- (5.31) a. khe-huŋ-na-bu n-ta-he. un-chi-ma-bu  
 MDEM-ABL-TOP-REP 3nsS-come-PT 3-nsPOSS-mother-REP  
 hapb-het. <XII14>  
 weep-TEMP  
 And so they came. Their mother was crying.
- b. 'na ŋ-khim-taŋ-ma kosel khutt-u-ai!' cek-sa-bu  
 this 2POSS-house-chief-FEM ritual.present bring-3U-EMPH say-SS/T-REP  
 i-gira u-phila-bu m-pheg-he ki khe-huŋ-go  
 one-NHUM 3POSS-thigh-REP 3nsA-tear.out-PT SEQ MDEM-ABL-PTCL  
 theŋŋthen theta akg-het-phu 'khai, m-maiti-chi-a  
 IDEOPH loom weave-TEMP-REP INIT 2POSS-wife's.relatives-ns-OBL  
 kosel ŋŋ-haũ-sa-k-kha' cek-sa khe-huŋ-go  
 ritual.present 3nsA-send-TR.PERF-2-PERF say-SS/T MDEM-ABL-PTCL  
 lep-phett-he. u-laŋ-do cherŋerj ek-khar-e. <IV104Bf>  
 throw-ACROSS-PT 3POSS-leg-ID IDEOPH break-TEL-PT  
 Bring this [thigh] as a present to your wife!' they said and tore off one thigh and then — [his wife] is weaving 'theŋŋthenŋ' like this — he said 'Here you go, your relatives have sent it to you as a present' and threw [the thigh] over to her. Her leg broke 'cherŋerj'.

This behaviour is in stark contrast to the imperfective, which does not suggest temporal limits. Used as a *praesens historicum*, the imperfective is suitable for depicting the background in a true *Inzidenzschema*:

- (5.32) saikal kud-ap cok-kha?-yau-t-u. yu-ba arko-ŋa-cha  
 cycle gallop-INT do-take-IPFV-NPT-3U ACROSS-LOC other-OBL-ADD  
 saikal ab-yau-t-u khe-huŋ-go bhet n-liu-chi  
 bicycle come.ACROSS-IPFV-NPT-3U MDEM-ABL-PTCL meeting 3nsS-be:NPT-d  
 ʌni na ambiu kha?-yakt-u-na caĩ ko-ha?-yu. <IV39>  
 and.then DEM mango take-IPFV-3U-ART TOP fall-TEL-NPT

He is taking the cycle galloping. Another one is coming over from across.  
 They meet. But the one who is carrying the mangoes falls.

### 5.3 The pragmatics of time and irony

Since the temporary implies temporal limits, speakers have to resort to the imperfective if they want to portray a current event as unlimited in time. This system pressure gives rise to the use of the imperfective in ‘continuative’ contexts. Without itself being semantically marked for ‘continuation’, the imperfective is the only cursive aspect form available in the non-past system that does not include temporal limits. This is why consultants suggest that an expression like *khoyau* ‘he is playing’ evokes *wareŋ-bak-cha* [in.future-LOC-ADD] ‘even in future’ and the idea of a never-ending event. The following implications are what a consultant offered as meaning definitions of the forms:

- (5.33) a. kam cog-yau-t-u → jaile-cha m-maĩ-ʔ-ni-ha kamm-eʔwa  
 work do-IPFV-NPT-3U ever-ADD NEG-finish-NPT-NEG-N work-LIKE  
 S/he is working → like work that never ends
- b. kam cokg-hett-u → cippa maĩ-kha kamm-eʔwa  
 work do-TEMP-3U a.bit finish-N work-LIKE  
 S/he is working → a bit like work that will finish

In line with this connotation, the imperfective sometimes suggests explicit certainty about future events. In the following example, which illustrates this notion, the imperfective depicts an iterated event that provides the background for a punctual event.



- (5.34) waremba bʌs istenn-e yuŋ-yau ʌni sʌjilo chii-t-u-ga.  
 tomorrow bus station-LOC be(loc)-IPFV:NPT and.then easily meet-NPT-3U-2  
 He will be staying at the bus station tomorrow and you can easily meet him.

By contrast, the temporary is not even compatible with expressions like *waremba* 'tomorrow' (5.35a=5.15a) and other future time adverbials (5.35b).

- (5.35) a. \*waremba tas khonŋ-hett-i  
 tomorrow card play-TEMP-1p  
 We will be playing cards tomorrow.
- b. \*nemma chukg-het.  
 next.year marketable-TEMP  
 It will sell well next year.

The temporary focusses entirely on a practice that the subject is engaged in 'now', i.e. during some limited stretch of time that the speaker can witness:

- (5.36) ʌni 'ne-e dal bhat cok-ma n-nui-ʔ-ni'  
 and.then here-LOC lentil.sauce boiled.rice do-CIT NEG-be.allowed-NPT-NEG  
 ceg-yu, pheri dal bhat cokg-hett-u! <G5.40b>  
 say-NPT again lentil.sauce boiled.rice do-TEMP-3U  
 [God Marga] says that one must not perform the *dāl bhāt* ritual here (at another deity's altar), but now he is doing it again and again.

The following minimal pair is extracted from natural discourse. In (5.37a) the speaker expresses her surprise that a curious kind of bamboo-made souvenir produced in the local bazaar keeps selling well. To emphasise this, she puts *chuk+t-* in the imperfective. The temporary would assert the fact for a current stretch of time only. This would fail to bring the curiosity of the fact to our attention (5.37b). The nominaliser in the examples signals predicate focus (on which see Bickel 1995c).

- (5.37) a. chug-yau-kha, na-na. <G5.43b>  
 marketable-IPFV:NPT-N DEM-TOP  
 It's that it keeps selling well, this one!
- b. chukg-het-kha.  
 marketable-TEMP-N  
 It's that it is selling well [these days].

The continuative effect in the preceding examples of imperfective aspect marking probably results from Gricean maxims operating on Horn scales. A glance at the system of oppositions immediately suggests such an analysis. Table 5.1 includes all cursive aspect markers, i.e., all markers that cover a similar ground. They all mark (at least) events in progress (*in cursū*) at the moment of reference. In all positions, the morphemes are furthermore opposed to the simple form. This will be discussed in Chapter 7.

	indicative	subjunctive	imperative	citation form
non-past	IPFV	IPFV	IPFV	IPFV
	TEMP	TEMP		
	INC	INC		
past	IPFV	IPFV	–	–

*Table 5.1: Distribution of cursive aspect morphemes over mood combinations*

The distribution of the imperfective suggests that the form is semantically less marked than the other morphemes. This fits with the analysis in the preceding sections. Compared to the imperfective, the temporary has more semantic content since it adds ‘temporal limitation’ to the idea of a cursive aspect. (We will later see that the inceptive is even more marked.) Given their definitions and the system of oppositions, the imperfective and temporary morphemes appear to form a Horn-scale in the non-past tense system:<sup>1</sup>

(5.38) Cursive aspect field: <TEMPORARY, IMPERFECTIVE>

The Sufficiency Principle requires the temporary wherever it is possible. This is why the form is the most common one in the non-past mood. The Minimisation Principle induces a contrast from the scale. Where the temporary could be used, use of the imperfective implicates ‘non-temporary’ aspect, i.e., absence of temporal limitation. This explains the idea of ‘continuation’ observed above.

The situations where a speaker may opt for the imperfective and risk its ‘continuative’ implicature are quite limited. This is so because in most situations the idea of continuation is not adequate in present or future time contexts:

<sup>1</sup>Thanks to Steve Levinson for suggesting an analysis in terms of the Quantity Maxim. Originally, I proposed a Quality-based account. The advantage of a Quantity-based analysis is that the properties of Horn scales are better explored in the literature than the notion of adequacy that is essential for the Quality Maxim (but see below). The analysis also fits better with the other analyses in this Chapter.

(5.39) *The 'Now' Principle:*

Normally, we have adequate evidence about nonpast situations only for 'now', i.e., for a restricted stretch of time including the moment of reference, and no evidence for situations that last continuously beyond 'now'.

This principle is a universal constraint underlying language use and is evidenced by many areas of aspectology and time reference. A well-known instance is the impossibility of using perfective forms for currently ongoing events.<sup>1</sup> As a minimal definition, the perfective in many languages can be said to signal a transition. If the event is still in development, the speaker cannot have evidence about such a transition, unless s/he is speculating about the future. This is why forms that look morphologically like present tense forms (as in Russian, for instance) are restricted to future or potential value (cf. Chapter 2).

The Belhare temporary precisely fits the 'normal' situation described in (5.39): the form refers to a current situation that is temporally restricted in some way. By contrast, the 'continuation' implicature of the imperfective usually produces a pragmatic meaning that is only rarely adequate for a current situation. If used, the imperfective implicates that the speaker has good reasons to assume continuation. This gives rise to the effect of 'certainty' observed in (5.34) and (5.37). In other instances, the imperfective implicates exaggeration. This is illustrated by the examples in (5.14), where the utterances have a flavour of exclamation and reproach (e.g., *yebyauka!* 'you are just standing around', instead of helping me, etc.). The speaker strongly disapproves of the current situation and reinforces her argument by suggesting that without her intervention the situation might continue forever.

Apart from these examples, it is uncommon that the speaker wants to implicate that s/he has evidence for continuation beyond 'now'. An interesting exception was observed when speakers wanted to describe potentially dynamic situations as static. In connection with research on spatial language, I had people play so-called 'space games'.<sup>2</sup> In these games, people are sitting next to each other but are separated by a wall so that neither can see what the other has in front of him or her. One person is shown an arrangement of toy animals and instructs his or her colleague to build up the same scene. In these instructions, we find imperfective non-past forms that would be very uncommon if not utterly odd in 'normal' everyday discourse. Typical examples are the following:

<sup>1</sup> I am indebted to Sabine Stoll for suggesting application of principle (5.39) to this phenomenon.

<sup>2</sup> See Bickel (1994, 1996c) for the spatial language research. The space games were designed by Lourdes de Léon, collaborating with John Haviland, and have been further developed by members of the Cognitive Anthropology Research Group at the Max-Planck-Institute for Psycholinguistics, Nijmegen, the Netherlands. See Danziger (1993).

- (5.40) a. i-gira phak tu:u> nikai taro pichari uŋ-yau. <VIII24a>  
 one-NHUM pig UP much:EMPH far back come.DOWN-IPFV:NPT  
 One pig is coming down up there far behind.
- b. i-na leiʔ-ŋa-na siŋ-taŋŋ-e goru il-lamma  
 DIST-DEM plant-INTR.PERF-ART wood-plant-LOC ox DIST-MED  
 ab-yau. <VIII34b>  
 come.ACROSS-IPFV:NPT  
 From there, the ox is coming over to the tree that has been planted.

I contend that the forms occur whenever the speaker perceives the scene as being simply a toy collection, whence a static scene, rather than the representation of a real world, i.e., as a dynamic scene. The two views of the scenes can change within the same sequence of instruction.<sup>1</sup> In (5.41), the scene is first taken as static (*hiʔyautu*), then as dynamic (*khatke*).

- (5.41) A: u-taer khot met-ma iʔ  
 3POSS-tyre touch cause-CIT Q  
 [Shall I] make [the man] touch the tyre of [the car]?
- B: hŋŋ... ʌgari-na caŋ  
 yes front-ART TOP  
 Yes, the front one.
- A: hiʔ-yau-t-u iʔ ... e: tem-sa yu-ma  
 watch-IPFV-NPT-3U Q INTERJ be.in.contact-SS/T go.DOWN-CIT  
 khat-ke iʔ <VIII28a>  
 go-INC Q  
 Is he watching [the car]?... oh! is he going downhill together with  
 [the car]?

Independent evidence for this conjecture comes from the fact that in space games one also hears simple forms which could not refer to ongoing dynamic events (see Chapter 7). Shortly after the sequence reproduced in (5.40b), for instance, we find the following interchange. The speaker replies with a simple form to an imperfective question:

- (5.42) A: i-khe-huŋ goru yul-leŋ khaʔ-yau iʔ  
 DIST-MDEM-ABL ox ACROSS-DIR go-IPFV Q  
 So the ox is going over there?

<sup>1</sup> For further discussion of such cognitive alternations with speakers from other languages, see Wilkins & Senft (1994).

B: na-lerj ab-yu! <VIII34b>  
 DEM-DIR come.ACROSS-NPT  
 It comes across!

In ordinary discourse, simple forms can have present time reference only if referring to states or habits, much like their English counterparts.

Apart from its use for situations that are thought of as static or where the speaker has enough evidence to believe that the situation continues beyond the moment of reference, there is hardly any setting where the imperfective could be used in an honest way. In other words, the Gricean Maxim of Quality, especially its second principle ('Do not say that for which you lack adequate evidence!'), suggests that the speaker has good evidence for continuation when using the imperfective. The alternative is that the speaker is taken to be dishonest. That is, the hearer computes a second order implicature on the output of the Minimisation implicature that suggests a continuative reading. In a normal conversational situation, a speaker may risk such an implicature only under one condition, viz. that of irony. It is essential for ironic effects that the addressee perceives that the speaker is well aware of the fact that he cannot possibly produce adequate evidence for what he says, i.e., that his proposition is blatantly false.

In the following examples, the imperfective is used for present situations, where it is evident to all participants that the speaker cannot possibly believe that the situation should be eternal. The effect of such blatant falsity is irony and the forms effectively denote the opposite of what they encode.

- (5.43) a. A: A-ni-cha khai-ka i?  
 1POSS-father's.younger.sister-ADD go:NPT-2 Q  
 Auntie, do you go as well?
- B: kha?-yau-?-rja! rka ya ma-ŋ-phekg-at-ni!  
 go-IPFV-NPT-e 1s call 1sU-3nsA-call-PT-NEG  
 Why should I go?! I am not invited!
- b. A: i-na pasirj-a ya m-phekt-he-ga!  
 DIST-DEM old.man-OBL call 3A-call-PT-2  
 That old man has called you!
- B: a: mai-pheg-yau! <G5.45b>  
 DIST-DEM 1sU-call-IPFV:NPT  
 Well, he is calling me.

- c. chom-kha i-na! — ā chom-yau-ʔ-ŋa! <G4.57a>  
 crazy-N DIST-DEM INTERJ crazy-IPFV-NPT-e  
 He's gone mad, that one! — Ah, I am crazy indeed! (of course I'm not!)
- d. A: raksi nai-t-u-ga i?  
 liquor abstain-NPT-3U-2 Q  
 Don't you drink some liquor?
- B: nai-t-u-ŋ.  
 abstain-NPT-3U-1sA  
 No, I don't.
- C: a: na-yau-t-u!  
 INTERJ abstain-IPFV-NPT-3U  
 Ah! why shouldn't he drink? Of course he does!  
 (i.e., just give him without asking. He is probably just too shy to accept)

In line with Sperber & Wilson's (1981) observation that irony not only rests on perceived falsity but crucially involves quotation of a (real or imagined) previous proposition, the ironic effect is bound to cases where the speaker refutes a previous proposition of his interlocutor (5.43a, b) or a third person in the current situation (5.43c, d). The assertion need not immediately precede the refutation. This is exemplified by (5.44), which refutes a claim made repeatedly on various occasions.

- (5.44) a: bhia n-li-yau-ʔ-ni-ga!  
 ah marriage NEG-be(come)-IPFV-NPT-NEG-2  
 Ah! why shouldn't you marry? (Sure you will!)

The person whose previous assertion is refuted need not even be co-present. In (5.45), the narrator exposes the ridiculous nature of the proposition that he reports to the audience.

- (5.45) A: ani un-chi-leppha m-pe-reĩ-s-u-ha  
 and.then 3-nsPOSS-tongue 3nsA-stretch.out-TEL.PERF-3U-PERF  
 n-ce-akt-he-no  
 3nsS-say-IPFV-PT-CONF  
 And they were saying 'they have been much surprised!'  
 (literally, they have put out their tongues completely)

B: a: m-pe-yau-t-u! <IV24>  
 INTERJ 3nsA-stretch.out  
 Ah! why should they be surprised?!

In static instructions during a space game, the imperfective can be conversationally ambiguous. The addressee can assume that the speaker intends the form honestly, referring to a static scene, or s/he can suppose that the speaker does not want to be taken seriously. The imperfective non-past form *cayautu* 'it is eating' in (5.46) could be meant perfectly honestly, and this is how it is taken first. However, the fact that the speaker starts laughing signals that she is joking about the whole situation of the 'game', where her colleague has started to talk about toy pigs as really 'eating' (cf. temporary *cahettuha* in the first line)!

(5.46) A: phak koŋ-e u-mun.. lum.. ca-hett-u-ha cog-u-atlo!  
 pig trough-LOC 3POSS-mouth between... eat-TEMP-3U-N make-3U-RESTR  
 At the pig trough, its mouth, between ...just put [the cow] in such a way  
 that it is eating!

B: ca-ma-na ca-yau-t-u tara hel-leŋ leŋ kina? <VIII25a>  
 eat-CIT-TOP eat-IPFV-NPT-3U but what-DIR turn SEQ  
 As for eating, it is eating, but after turning in which direction?

The preceding examples show that the imperfective is an excellent, if occasionally ambiguous, means to signal irony. The form acquires this pragmatic quality from its competition with the temporary. Since the temporary denotes situations that are going on 'now', i.e., during a restricted stretch of time including the moment of reference, it is the standard form for present time reference. The imperfective is reserved for nonstandard situations, to wit, for situations where the speaker believes the situation to extend beyond 'now', or where s/he wants to effect blatant falsity, i.e., irony.

## Chapter 6

### Actuality, 'already' and the inceptive vs. temporary opposition

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After having explored the difference between the temporary and imperfective aspects, I shall deal with the third member in the aspectual slot sf2 (see Table 3.2) that has purely aspectual meaning, viz. the marker *-kett*.<sup>1</sup> At first sight, the morpheme appears to have different properties in affirmative and negative forms. Whereas in negative forms, *-kett* cooccurs with any verb type, it is restricted to a specific subgroup of 'oriented motion' verbs in affirmative clauses. For ease of reference I will refer to this sub-class as 'restricted oriented motion' ('ROM') verbs. The 'oriented motion' class as a whole consists of the verbs *khat*- 'go', *khat+t*- 'take' *ta*- 'come', *tat*- 'bring' *khut+t*- 'carry to somebody' and all 'environmental space' verbs. The latter category covers verbs that include one of the three features UP, DOWN and ACROSS which define 'environmental space' as a grammatical category of Belhare (see Bickel 1996c). For inceptive marking, only half of this verb class is available, viz. only those which denote a trajectory towards the speaker. The verbs are *kat*- 'come up', *kat+t*- 'bring up', *uŋ+s*- 'come down', *uk+t*- 'bring down', *ap*- 'come across' and *ap+t*- 'bring across'. The set of oriented motion verbs as a whole is semantically characterised by a feature of oriented motion to a definite goal. Other motion verbs in Belhare, e.g., *pe*- 'fly' or *la um*- 'walk', refer to unoriented ways of moving around. Formally, the class of oriented motion verbs is defined by several syntactic and morphological properties, which will be discussed in Chapter 13. For the moment, only two morphological properties are crucial to note.

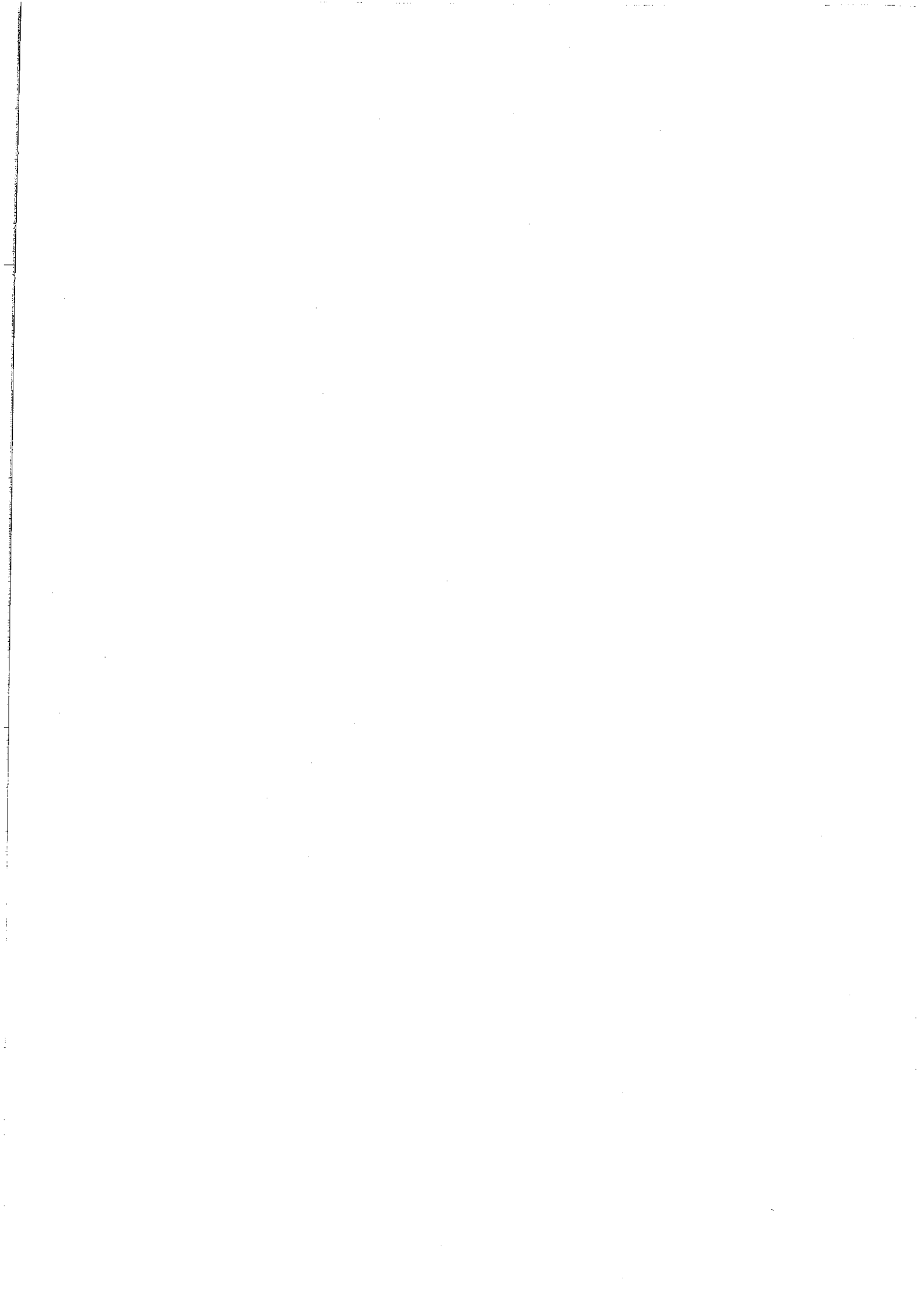
First, only ROM verbs can be marked with *-kett* both in the affirmative (6.1a) and the negative (6.1b). In this environment, the morpheme *-kett* signals temporally restricted ongoing events, quite similar to the general temporary marker *-hett*. Also in line with *-hett* is a restriction of *-kett* to present time reference (6.1c). An important difference to *-hett*, however, is the fact that affirmative *-kett* clauses cannot refer to iterated or habitual (i.e., 'inactual') events. (For the deletion of word-final /t/, see Chapter 3.)

- (6.1) a. *khat-ke*.  
go-INC  
S/he is going (now).

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<sup>1</sup> A more detailed discussion of *-kett* can be found in Bickel (in press-b).





- b.  $\eta$ -khat-ket-ni.  
 NEG-go-INC-NEG  
 S/he is not going.
- c. \*waremba khat-ke.  
 tomorrow go-INC  
 S/he will be going tomorrow.

With non-motion (or unoriented motion) verbs, *-kett* is a negative polarity item (6.2a) and cannot occur in affirmative forms (6.2b).

- (6.2) a. kam n-cok-ket-ni.  
 work NEG-do-INC-NEG  
 S/he has not done the work yet.  
 S/he has not worked yet.  
 S/he is not yet working.
- b. \*kam cok-ke.  
 work do-INC  
 S/he has already done the work.  
 S/he is working.

The reading 'not yet' in (6.2a) is also available with ROM verbs. Thus,  $\eta$ -khat-ket-ni in (6.2b), can also be understood as 's/he has not gone yet', where *-kett* has the value 'yet' rather than actuality.

The second crucial property to note about ROM verbs is the fact that with them, the temporary marker *-hett* is usually restricted to an inactual or habitual reading. This compensates for the restriction that *-kett* on these verbs cannot have an inactual value. Thus, a form like (6.3a) cannot refer to a singular ongoing event, but is used for regular events as in the conversational example (6.3b). (6.3c) is common vis-à-vis oxen when they do not behave properly when ploughing. The implication is again iteration, which is supported by the repetition of the adverbial *ibhinleŋ* 'to the wrong side'.

- (6.3) a. khatd-het.  
 go-TEMP  
 S/he (regularly) goes (these days).
- b. u-maiti gaŋ-e ta-het. <G5.37b>  
 3POSS-wife's relatives village-LOC come-TEMP  
 [Goddess Mura] now comes back to her home village from time to time.

- c. na goru-chi ibhiŋ-leŋ ibhiŋ-leŋ khatd-hett-i-ga i? <VIII17b>  
 DEM ox-ns wrong.side-DIR wrong.side-DIR go-TEMP-2p-2 Q  
 These oxen, will you now always be going to the wrong side?

That there is no such constraint with non-motion verbs has been amply exemplified in the preceding chapter.

As a result of the distribution of *-hett* and *-kett*, reference to ongoing singular events is indicated by *-kett* with ROM verbs and by *-hett* with non-motion verbs. In turn, *-kett* has an 'actual progressive' function with ROM motion verbs and a function similar to English *yet* with both ROM and non-motion verbs. The marker *-hett* has a general progressive function with non-motion verbs but is restricted to inactual (iterative, habitual) readings with ROM verbs. The question is how this distribution can be accounted for by the morpheme analysis.

### 6.1 Two possible analyses

At first sight, the distribution of the morphemes *-kett* and *-hett* can be accounted for in two different ways. One analysis assumes allomorphy and is in line with traditional 'semantics-only' analyses, the other is based on a co-occurrence restriction and incorporates pragmatic dimensions.

Under the 'allomorphy hypothesis', one would postulate a morpheme *-hett* ~ *-kett* 'actual progressive' in such a way that *-kett* is the allomorph selected by ROM verbs. Apart from this, we would need to assume two other morphemes, viz. a distributionally unrestricted morpheme *-hett* 'inactual' and a highly specific negative polarity item *-kett* 'yet':

(6.4) *The 'Allomorphy' Hypothesis:*

- hett* ~ *-kett* / \_ [ROM verb] 'actual progressive'
- hett* 'inactual'
- kett* 'yet'

On the basis of the semantics, one might speculate about a relationship between the actual progressive and the meaning 'yet'. However, the 'yet' marker could not be integrated into a large unified morpheme *-hett* ~ *-kett* because the allomorphy rule would wrongly exclude forms like (6.2a) (*kam ncokketni* 's/he has not done the work yet'). The allomorph *-kett* would be restricted to ROM verbs, its use with negated non-motion verbs would not be accounted for. The semantic features suggested by the analysis

would be 'actual', 'inactual' and 'yet'. The disadvantage of this proposal is that it assigns much weight to the distinction between actual and inactual events. While this is in concordance with what some aspectologists would expect (cf. Chapter 2), it gives a somewhat misleading impression of Belhare. The distinction is semantically irrelevant in the imperfective and it seems odd to assume that with non-motion verbs, the forms in *-hett* are truly polysemous between an actual progressive and a non-actual meaning. The distinction seems to be exhaustively grounded in either the textual or situational environment. We will see later (Chapter 7) that the simple form too encodes both actual and non-actual situations. Thus, Belhare confirms Meillet's *dictum*: "La notion de répétition n'a [pour l'aspect] aucun caractère essentiel" (1934: 282; also cf. Johanson, forthcoming). The parameter of repetition is, in modern terms, a purely pragmatic concern. Another problematic result of the 'allomorphy hypothesis' is that it claims three distinct morphemes. The 'restriction hypothesis' is more parsimonious.

Under the 'restriction' hypothesis, one would postulate a unitary morpheme *-kett* denoting something like English *already* and its suppletive counterpart *yet* in negation ('not already' = *not yet*; see König 1991: Ch. 7). The morpheme would be excluded by stipulation from co-occurring with non-motion or unoriented motion verbs in affirmative polarity. The second morpheme required by the analysis would simply be the temporary marker *-hett* that we assumed in the preceding chapter:

(6.5) *The 'Restriction' Hypothesis:*

*-kett* 'already' [not with affirmative non-motion or unoriented motion verbs]

*-hett* 'temporary'

Compared to the 'allomorphy' hypothesis, this account postulates one morpheme less, but requires an *ad hoc* co-occurrence restriction. If it makes any sense at all to compare the analyses in terms of computational cost and if we understand by a morpheme a rule of form – meaning pairing, the 'restriction' hypothesis is more parsimonious. It operates with a sum of three rules (two form – meaning pairings and one co-occurrence restriction) as against four rules (three form – meaning pairings and one allomorphy rule). A better reason, however, in favour of the 'restriction' hypothesis is that it better fits the over-all picture of Belhare in not assuming actuality and iteration as central semantic concepts of the language: there is no other tense or aspect marker involving these concepts.

## 6.2 The semantics of the inceptive and its pragmatic repercussions

The 'restriction-based' analysis postulates a morpheme *-kett* 'inceptive' with the following *Gesamtbedeutung* and a specific co-occurrence restriction. The definition will be formalised in Chapter 12, where we will also see that the co-occurrence restriction can be semantically elucidated by looking at the Aktionsart of motion verbs (also cf. Bickel, in press-b).

- (6.6) The morpheme *-kett* 'inceptive' indicates that the situation denoted by the verb already obtains at the moment of reference, i.e., that it has started to obtain. The morpheme does not co-occur with affirmative forms of verbs other than ROM verbs.

The gloss 'inceptive' is borrowed from African linguistics, where the term is used for aspectual forms describing situations that have started to prevail at the moment of reference. This is of course closely related to the meaning of *already* (cf., among others, Meeussen 1959, Essien 1987, Schadeberg 1990).

In affirmative forms of ROM verbs, the inceptive entails that the motion has already started to develop at the moment of reference, and is therefore currently proceeding. This results in the 'actual progressive reading' observed above and further illustrated by the following examples.

- (6.7) a. male, cua-e khat-ket-chi-ga i? — khat-ket-chi-ŋa. <G3.76b>  
 INIT water-LOC go-INC-d-2 Q go-INC-d-e  
 Well, are you<sup>d</sup> going to [fetch] water? — Yes, we<sup>de</sup> are off (i.e., we are going now).
- b. daju-chi he-ne ŋ-khat-ket-chi-ha-u?! <G3.38a>  
 elder.brother-ns where-LOC 3nsS-go-INC-d-N-EMPH  
 Where is it that the two elder brothers are going?
- c. phak ŋ-khut-kett-u-chi. <G4.56b>  
 pig 3nsA-carry-INC-3U-nsU  
 They are carrying pigs.
- d. a: pujari ta-ge! <G5.16b>  
 INTERJ priest come-INC  
 Ah, now the *pūjārī* is coming!

- e. parewa lop-pa tat-kett-u-ga! <G5.56a>  
 pigeon now-LOC bring-INC-3U-2  
 Now you are bringing the pigeons!
- f. yu-ba! i-gira uŋ-ge. <G5.26a>  
 ACROSS-LOC one-NHUM come.DOWN-INC  
 Look over there! one [bus] is coming down!

Whereas usually the cursive implication is more in the foreground, sometimes its semantic base, i.e., the notion of inception, is more important. An example for this is the following.

- (6.8) A: e u-riŋ ma?-yakt-he-m, uŋ-ge.  
 INTERJ 3POSS-sound narrate-IPFV-PT-1pA come.DOWN-INC  
 We<sup>pl</sup> were just talking about him, now he is coming down!
- B: hã... uŋ-ge.  
 yeah come.DOWN-INC  
 Yeah,... he is coming down.
- A: uŋ-yu-no abo. <IX11>  
 come.DOWN-NPT-CONF now  
 Now he will show up down here.

In this example, the speaker has become aware that somebody just appeared on the scene. The referent has not actually reached the people but has 'started to come'. This reading is further emphasised by the use of a simple non-past form further down in the dialogue. It should be clear that such a contextual effect is a matter of particularised nuance rather than generalised conversational implicature. In (12.19), the inceptive logically implies that the motion is in progress.

This effect of the inceptive is similar to what König (1991: 147) observed about German *schon* 'already'. In some cases, *schon* produces an imperfective reading:

- (6.9) Hans putzte schon seine Schuhe.  
 John was already cleaning his shoes.

Pragmatically, *schon* often has a counter-expectative connotation, although this need not be so (cf. Löbner 1989, König 1991). In Belhare, a similar connotation can sometimes be observed in negative clauses:

- (6.10) mi-cha u-koila n-li-get-ni. <V12a>  
 fire-ADD 3POSS-coal NEG-become-INC-NEG  
 There is no charcoal yet! (wait!)

In affirmative clauses, *-kett* does not seem to ever implicate a counter-expectative notion. The form occasionally even expresses an overdue expectation:

- (6.11) ma? na-kha-chi loppa η-khat-ket-chi,  
 PROHIB DEM-ns-d now 3nsS-go-INC-d  
 un-chi-tak-chi hale-ro m-phenn-har-e. <G5.30a>  
 3-nsPOSS-friend-ns earlier-ID 3nsS-go.ACROSS-TEL-PT  
 Hold on! These two guys are going only now, their friends went much earlier!

What is entailed in both affirmative and negative clauses, however, is that the event contrasts with a period of time before the starting point in which the event did not occur.

An important difference to German *schon* and similar expressions in other languages concerns iteration.<sup>1</sup> The German adverb can also refer to an iterated event:

- (6.12) Hans geht schon zur Schule.  
 John already goes to school.  
*or:* John is already going to school.

Belhare *-kett* in affirmative verb forms can occur only with verbs having the particular Aktionsart of 'oriented motion'. As we will see in Chapter 13, iteration changes the Aktionsart and therefore excludes *-kett*. As a result, the form does not allow a habitual or iterative reading. This 'gap' in the usage of *-kett* is filled by the regular temporary *-hett* as in the following example (cf. (6.3) above).

- (6.13) hambasen-cha ηη-ukg-hett-u hola. <G5.42b>  
 these.days-ADD 3nsA-bring.DOWN-TEMP-3U probably  
 Even these days, they are probably bringing down [salt from Tibet].

An alternative aspect marker for encoding iterated motion is the imperfective marker. In agreement with what we found in Chapter 5, the marker conversationally implicates continuation:

<sup>1</sup>Another difference is that *schon* and many of its equivalents in other languages also have a focus function and sometimes even shade off into modal functions. The Belhare inceptive resembles *schon* etc. only in its function as an 'aspectual operator' (see König 1991).

- (6.14) a. *dui-e kha?-yau.*  
 two-LOC go-IPFV:NPT  
 He is still in second grade. (Literally, He keeps going to the second.)
- b. *ika-a ta-yau-ka?*  
 why-OBL come-IPFV:NPT-2  
 Why do you keep coming here?

Yet another alternative is the simple form, which I shall discuss in Chapter 7.

Recall that neither the temporary nor the imperfective are semantically specialised for actuality or non-actuality (iteration). Therefore, the fact that with affirmative ROM verbs the forms typically encode iteration is merely a conversational implicature. It is due to the existence of the inceptive marker, which is restricted to actual events. To put it more explicitly, the inceptive is part of the same Horn scale as the temporary and the imperfective. The scale only holds in affirmative sentences:

- (6.15) Cursive aspect field: <INCEPTIVE, TEMPORARY, IMPERFECTIVE>

If the speaker uses a temporary or imperfective form where the grammar would have allowed use of an inceptive (i.e., with verbs of restricted oriented motion), s/he implicates that there was not enough evidence for an inceptive form (cf. the Minimisation Principle). This suggests that the Aktionsart of the sentence was not suitable for inceptive marking. This is the case if an oriented motion is part of a series of events which constitutes a state-like iterative Aktionsart. This is why the pragmatic meaning of a temporary or imperfective motion verb form suggests iteration. If this account is correct, there is no need to include a notion of actuality in the semantic description (6.6) of the inceptive, although this notion looked so important in the contrast between (6.1) and (6.3).

A further justification of this analysis is the following. If 'actuality' were postulated as part of the semantics of *-kett*, the use of *-kett* with negative forms of non-oriented motion verbs would be left unexplained. In negatives, the inceptive implies that before the moment of utterance the event has not yet started. For this, it is completely irrelevant whether one thinks of the moment before now as the time stretch around 'now' or as an iterated series of moments, i.e., the distinction between 'actual' and 'non-actual' is neutralised on the semantic level. On the pragmatic level, some examples suggest negated 'actuality', i.e., what could obtain now has not yet started (6.16a), others implicate negated 'iterativity', i.e., that there was never a chance for an event to occur (6.16b).



- (6.16) a. mi ɲɲ-hat-ket-ni <VI2a>  
 fire NEG-burn-INC-NEG  
 The fire has not yet lit up.
- b. ɲ-khem-get-ni-ɲɲ-ha. <G3.64b>  
 NEG-hear-INC-NEG-1sA-N  
 It's that I have never heard of it.

What is essential about the inceptive is the concept of 'begin', i.e., the concept of a temporal contrast between 'not p' before the moment of reference and 'p' at this moment. In the affirmative, this means that the event has started to obtain after not having obtained (see above). In negative forms, the speaker denies that the event has started after having not obtained. This is in minimal opposition with negated temporary forms, where the speaker denies a potentially actual event but without implying that it stands in contrast to a previous period of time:

- (6.17) a. kam n-cok-ket-ni.  
 work NEG-do-INC-NEG  
 S/he has not done the work yet.  
 S/he has not worked yet.  
 S/he is not yet working.
- b. kam n-cokg-het-ni.  
 work NEG-do-TEMP-NEG  
 S/he is not working (now).

The definition of *-kett* suggested in (6.6) is compatible with the etymology. The inceptive morpheme is probably cognate with the Limbu verb stem *kɛp- ~ kɛʔr- ~ ket- ~ -kɛʔl* 'arrive, attain adulthood, have got to a place' (van Driem 1987, *s.v.*).<sup>1</sup> This suggests that Belhare *-kett* goes back to a verbal root used as an Aktionsart derivational stem. The meaning would link up with the modern Limbu reflex as something like 'having attained the event denoted by V'. From this, a re-interpretation as 'already V' or 'V after not V' is a short step. If this etymology proves to be correct, this no doubt increases the verisimilitude of the proposed definition of *-kett*, even more so as the etymology would reflect a universally well attested grammaticalisation path (e.g., Sasse 1991, Bisang 1992).

<sup>1</sup>Belhare /e/ regularly corresponds to both /ɛ/ and /e:/ in Limbu (which lacks /e/).

## Chapter 7

### The simple form and situation types

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If the ‘aspectual’ suffix slot sf1 in Table 3.2 (Chapter 3) is not filled by any exponent at all, the form is aspectually ‘simple’. In many respects, this resembles the English ‘simple form’. The most typical uses of the simple form are for static predications in the non-past (7.1a) and for dynamic narrative sequences in the past (7.1b):

- (7.1) a. cuŋ lu-yu.  
cold perceptible-NPT  
It’s cold.
- b. ‘lou, abo na meri set-ca-ma’ cek-sa-bu  
INTERJ now DEM goat kill-eat-CIT say-SS/T-REP  
maʔi-chi-bu khoms-e-chi i-net-nahuŋ bhela  
person-ns-REP call.together-PT-nsU DIST-LDEM:LOC-ABL gathering  
n-lis-e-bu meri set-ma-bu ta n-lokt-he. <II, 25>  
3nsS-become-PT goat kill-CIT-REP begin 3nsS-begin-PT  
He said ‘OK, [we should] kill and eat this goat now’ and called together  
people and then they got together and started to kill the goat.

What is different from English, however, is that the Belhare simple form competes in the non-past with more cursive aspect markers than its English counterpart.

In this chapter, I want to show that the Belhare simple form is not only morphologically unmarked but also semantically and that the distribution and typical uses of the form result from its systematic oppositions with cursive markers, i.e., all functions of the simple form can be computed from pragmatic principles and need not be generated by semantic features. I start the discussion with the function that resembles a perfective aspect marker, i.e., with the function illustrated above by (7.1b).

#### 7.1 The simple form in perfective function

A first crucial observation about the simple form is that with dynamic verbs the form cannot capture a situation *in cursu*, at least not under normal circumstances. To answer



the basic aspectological test question ‘what is he doing right now?’, speakers have to choose temporary aspect marking:

(7.2) A:  $\Delta$ ni Bimala pa?  
and.then B. father  
And [where is] Bimala’s father?

B: nabhak chi-het. <G5.51a>  
face wash-TEMP  
He is washing his face.

In the non-past, the simple form would suggest that the event is not yet in progress. The event is expected to be realised in the future or it is ‘projected off’ into a modally distant world. The examples in (7.3) illustrate the future reading. Notice that it is not necessary to include a time adverbial in order to imply future reference.

- (7.3) a. abo  $\eta$ -khi-yu hola. <ST24>  
now 3nsS-quarrel-NPT probably  
Now they will quarrel [given what he just said.]
- b. i-na-ro m-piu-ka, ca-ma-ha, wat-ma-ha. <FS19>  
DIST-DEM-ID 3A-give:NPT-2 eat-CIT-N wear-CIT-N  
That’s what [the tree] will give you, food and clothes.
- c. i-khe-na nini-chi khai?-t-u- $\eta$ -chi- $\eta$ . <G4.41b>  
DIST-MDEM-TOP child-ns take-NPT-3U-1sA-nsU-1sA  
If so, I will take the kids [with me].
- d. cokho-nit-to cokg-itt-a!  $\eta$ ka hii-?-na-bu lur-he  
pure-EMPH-ID do-ACCEL-IMP 1s look-NPT-1>2-REP tell-PT  
lama- $\eta$ a. <KP16b>  
lama-OBL  
‘Now purify yourself! I will watch you’ said the lama.

Belhare predicates that translate as states into English are often ‘ingressive-phasal’, i.e., they include the notion of an initial boundary. Like a perfective in a Romance language, the Belhare simple form often highlights this initial boundary, which results in an ingressive reading (cf. Comrie 1976: 19 – 21 and Chapter 2):

- (7.4) a. wa yui-t-i-ga<sup>1</sup> hola, bheula-cha wa ag-yuk,  
 wet wet-NPT-2p-2 probably bridegroom-ADD wet OPT-wet  
 bheuli-cha wa ag-yuk. <G5.33b>  
 bride-ADD wet OPT-wet  
 You<sup>P</sup> will get wet probably, both the bridegroom and the bride may get wet!
- b. lett-u-na din-do bara u-yu. <FS21>  
 plant-3U-ART day-ID EXT three.dim-NPT  
 [The tree] will grow big on the very day it is planted.

In other contexts, the simple form is modally coloured. This effect was already illustrated in the discussion of the non-past tense, where we observed that non-past simple forms like *yet' couka?* [what do:NPT:2] mean 'what are you up to?' (much like the Turkish 'Aorist' *ne yaparsın?*) rather than 'what are you doing?' (Turk. *ne yapıyorsun?*). The effect also appears in the following examples:

- (7.5) a. male ika-a ne-e tai-kak-kha?! <G5.49b>  
 INIT why-OBL here-LOC come:NPT-2-N  
 Why is it that you want to come here?
- b. make kham-t-u-ga i? <G4.19a>  
 maize chew-NPT-3U-2 Q  
 Do you [want to] chew some [pop] corn?
- c. irja unj-hai-t-i-ai! <G5.50b>  
 beer drink-go-NPT-1p-EMPH  
 We go after drinking some beer!
- d. han-cha khonj-ka i? <VIII21a>  
 2s-ADD play:NPT-2 Q  
 Do you [want to] play as well?

Closely related to this use are instances like the following, where the simple form strongly suggests that the speaker **wants** to hear something. The speaker, an old respected authority in matters religious, uses the proposition to advise the addressees to keep singing during the ritual dance they are performing.

<sup>1</sup>The stem *yui-* (instead of *yuu-*) from *yukt-* is irregular. The verb shows yet another irregular behaviour in that the optative *wa akyuk* is sometimes replaced by *akwayuk*. For the semantics and use of the morpheme glossed 'optative', see Bickel (1995a). The meaning is often (as in the example) not directly deontic in a narrow sense and may incorporate the notion of a mediator between the subject and the deontic source.

- (7.6)  $\eta$ ker $\eta$ -cha nubhek- $\eta$ a khem-t-i- $\eta$ a. <G3.59b>  
 1pe-ADD ear-OBL hear-NPT-1p-e  
 We<sup>pe</sup> too, we [want to/can/will] hear with our ears.

This effect of the simple form contrasts with the temporary which refers to an event *in cursu*. In the following example, the speaker is wondering about a dangerous-looking game that the children are engaged in.

- (7.7) A: ma? yeti n-cokg-het-kha?!  
 PROHIB what 3nsS-do-TEMP-N  
 But what are [the kids] doing?!
- B: koni yeti n-cokg-het <G5.24a>  
 IGNOR what 3nsS-do-TEMP  
 No idea what they are doing.

The simple form often refers to an ability whereas the temporary depicts an actuality. In the following exchange a simple form would turn B's answer rather impolite. Speaker B refers back to herself in terms of a practice rather than in terms of the 'ability' that A attested to her in the first dialogue turn:

- (7.8) A: imbi chitto cou-ka-no!  
 how.much fast do:NPT-2-CONF  
 How fast you [can] do that!
- B: koni-ndo ka-lui-sa-k-kha bharr-e cokg-hett-u- $\eta$   
 IGNOR-CEXP 1sU-tell-TR.PERF-2-N reliance-LOC do-TEMP-3U-1sA  
 i-ne-e pheri khicci ibhirj-lej a $\eta$ -li-ni. <VIII24b>  
 DIST-LDEM-LOC again soon wrong.side-DIR OPT:NEG-be-NEG  
 I don't know, I am just doing it in agreement with what you tell me [so that] it does not get wrong again.

Often the difference between the simple and the temporary aspect is quite subtle. The following two examples refer to the 'same' mythological situation. After having disappointed the gods, the human (*manua*) is being covered by seven *sāl* (*Shorea robusta*) leaves so that he may not see the gods any longer. After each leaf, the gods ask him whether he can still see. One narrator chose to use the simple form (7.9a), another one used the temporary aspect (7.9b).

- (7.9) a. A: e        manua! ka-niu-ka        i?    ka-niu-ʔ-ni-ga        i?  
 INTERJ human 1sU-see:NPT-2 Q 1sU-see-NPT-NEG-2 Q  
 Hey, human! can you see me or not?
- B: niu-ʔ-na. <IV105b>  
 see-NPT-1>2  
 I can.
- b. A: maʔi-ni-het-ka i?  
 eU-see-TEMP-2 Q  
 Do you see us<sup>pe</sup>?
- B: ni-het-na-chi-ŋa. <KP15b>  
 see-TEMP-1>2-ns-e  
 I do.

The difference is, as consultants point out, that the simple form asks whether the human is still **able** to see whereas the temporary asks whether he still **does** see.

Both the future and the virtuality effects are reminiscent of the functional range covered by the perfective aspect in languages like Russian. The 'Now' Principle introduced in Chapter 5 says that we have adequate evidence only for a restricted period of time around the moment of utterance. The perfective aspect portrays a situation in its transition. If the time of reference is 'now', the speaker cannot have adequate evidence about a transition. He or she can only assume that such a transition has just occurred or will be brought about in the future or in another epistemically remote world. If a language opposes a past to a non-past tense (or for that matter, a 'dissociative' to an 'associative' mood), use of the non-past excludes the first interpretation, viz. the value of a past transition. Therefore, the perfective aspect can only have a future or virtuality reading. This kind of pragmatic computation is straightforward for languages like Russian where the perfective is a morphologically signalled value. In Belhare, matters are different. Here, the perfective is an implicated meaning of the simple form rather than a semantically entailed function. The computation of the future and virtuality reading is based on second order implicatures. In other words, the hearer draws implicatures about time and modality from implicatures about aspectual value. But how does the aspectual implicature come about in the first place?

In Chapters 5 and 6 we saw that the cursive aspects form a Horn-scale <INCEPTIVE, TEMPORARY, IMPERFECTIVE> in the non-past tense. If we hypothesise that the simple form has no semantic content by itself, but is in obligatory paradigmatic opposition with the aspect markers, the form appears to be a fourth member of the scale:

## (7.10) Cursive aspect field: &lt;INCEPTIVE, TEMPORARY, IMPERFECTIVE, Ø&gt;

From this scale, the Minimisation Principle derives the perfective value from 'zero'. If an event is *in cursu* at the moment of reference, the maxim requires one to use a suitable form, i.e. the inceptive (where applicable), the temporary or the imperfective. Use of a weaker form, i.e. the simple form, implicates that the situation is neither inceptive nor temporary nor imperfective: the form then does not focus on the inner development of the situation in any sense. The resulting value is perfective, a value focussing on the boundaries rather than 'ingredients' of the event. In past contexts, this implicature is suitable for narrative development. In the non-past system, the perfective value is understood either with future or potential reference because the 'Now' Principle introduced in Chapter 5 does not allow reference to boundaries in the actual present.

If these implicatures are unwanted and if the context requires focussing on the current progress of an event, the simple form is odd. For example, adverbs like *nemma-samma* 'until next year', require that one portray the development of the situation until the time indicated is reached. Since the form should implicate continuation beyond 'now', the only fitting form is the imperfective (7.11a). The simple form (or the temporary aspect) would be odd (though not completely ungrammatical) (7.11b). (The example refers to the white-wash that is applied to a house every year.)

- (7.11) a. *nemma-samma* *khāi-yau*.  
 next.year-UNTIL beautiful-IPFV:NPT  
 [The white-wash] will be nice until next year.
- b. ? *nemma-samma* *khāi-yu*.  
 next.year-UNTIL beautiful-NPT  
 [The white-wash] will be nice until next year.

On the other hand, the simple form is compulsory wherever the cursive aspect morphemes cannot be used. Most important is the following restriction on cursive forms. They all highlight the inner development of situations at the expense of their boundaries. This makes them incompatible with an explicitly delimitative 'single whole' conception of the situation. A delimitative adverb like *dui ghanta* 'two hours' therefore requires a non-cursive aspect. In other words, this functional ground is left to the simple form:

- (7.12) a. *dui ghanta* *ŋ-khoŋs-e* *ki* *mun* *n-dhupt-he*.  
 two hour 3nsS-play-PT SEQ talk 3nsS-talk-PT  
 They played cards for two hours and then they talked.



- b. dui ghanta η-khoŋ-yu ki mun n-dhub-yu.  
two hour 3nsS-play-NPT SEQ talk 3nsS-talk-NPT  
They play cards for two hours and then they will be talking.
- c. \*dui ghanta η-khoŋ-yakt-he ki mun n-dhupt-he.  
two hour 3nsS-play-IPFV-PT SEQ talk 3nsS-talk-PT  
They were playing cards for two hours and then they talked.
- d. \*dui ghanta η-khoŋ-η-het ki mun n-dhub-yu.  
two hour 3nsS-play-TEMPSEQ talk 3nsS-talk-NPT  
They are playing cards for two hours and then they will be talking.
- e. \*dui ghanta η-khat-ke ki mun n-dhub-yu.  
two hour 3nsS-go-INC SEQ talk 3nsS-talk-NPT  
?They are going for two hours and then they will be talking.

Such adverbs turn the focus of interest away from the course of an event to the over-all qualification of the event as a 'single whole' (Comrie 1976).

Notice that the incompatibility of cursive aspect markers with a 'single whole' conception does not imply that the forms cannot be integrated into a sequence of events. As we have seen in Chapter 5, the Belhare temporary is qualified precisely for such a function. Thus, while being suitable in a sequence of events (7.13), the temporary form nevertheless has a full-fledged 'processual' value.

- (7.13) la!, na-na pheri i-khe-?wa ca-het kina-ulo  
INTERJ DEM-TOP again DIST-MDEM-LIKE eat-TEMP SEQ-CONTR  
pheri bolleu li-het-kha. <FS32>  
again strong become-TEMP-N

Look! Again he is eating like this and then he will be getting stronger again.

This value cannot be suppressed so as to characterise the event 'from outside', to wit, as a delimited occurrence in time without 'internal structure' (7.12d).

Another type of temporal specification that is incompatible with the imperfective aspect concerns auxiliary verbs specifying the inception of a situation. The imperfective takes the focus away from boundaries so that they are no longer accessible to specification. The auxiliary *ta lokma* 'to begin' requires a non-imperfective citation form as complement (7.14).<sup>1</sup> (Since the temporary and inceptive markers are morphologically

<sup>1</sup> Readers acquainted with Slavic aspectology might object that in the Russian equivalent of (7.14), the imperfective is not only possible but even compulsory, cf. *on načal igrat*. This difference is due to the unmarked status of the Russian 'imperfective', which does not necessarily imply backgrounding of an event's boundaries (cf. Chapter 2).

incompatible with the citation form [see Table 3.2], the constraint is vacuously satisfied in these cases.)

- (7.14) a. \*khorj-yak-ma n-talokt-he.  
 play-IPFV-CIT 3nsS-begin-PT  
 \*They began to be playing.
- b. khorj-ma n-talokt-he.  
 play-CIT 3nsS-begin-PT  
 They began to play.

The Gricean Sufficiency Principle requires one to use the imperfective or temporary whenever the speaker does not want to implicate a perfective conceptualisation of the situation. This is why an event *in cursū* needs to be encoded by a temporary (7.15) or, with a motion verb, by an inceptive (7.16).

- (7.15) a. lop-pak-cha i-na riŋ matd-hett-u! <G5.34a>  
 now-LOC-ADD DIST-DEM sound narrate-TEMP-3U  
 Now he is telling that story, too!
- b. pujari-cha urŋ-har-e, yu! yu-i-ne-e  
 priest-ADD come.DOWN-TEL-PT ACROSS ACROSS-DIST-LDEM-LOC  
 mi tupb-het. <G5.56a>  
 fire blow.up-TEMP  
 The priest has come down, look over there! he is blowing up a fire.

- (7.16) hen-e khat-ket-ka baini-bu lur-he. a: ŋka Himal  
 where-LOC go-INC-2 younger.sister-REP tell-PT INTERJ 1s H.  
 khat-ket-na daju-bu lur-he u-nucha  
 go-INC-e elder.brother-REP tell-PT 3POSS-younger.sibling  
 meacha-a-bu. <KP79b>  
 woman-OBL-REP  
 ‘Where are you going, sister?’ he said. ‘Ah, I am going to the Himālaya, brother,’ the young woman told him.

For reasons discussed in Chapter 5, the imperfective is usually not suitable in present time contexts since it regularly implicates continuation. The imperfective is the only possible cursive aspect, however, in forms outside the non-past system. In such contexts, the simple form captures events that fall in the middle of an ongoing background depicted by the imperfective. This temporal configuration instantiates the so-

called *Inzidenzschema*, which has often been used as a diagnostic for aspectual oppositions (*inter alia*, Johanson 1971, Comrie 1976). Consider the following examples.

- (7.17) a. Himal-bu kha?-yakt-he, Marga caĩ u-phu bica-e  
 H.-REP go-IPFV-PT M. TOP 3POSS-elder.brother middle-LOC  
 lambu-ep-phu n-tub-he-chi u-phu-bu  
 path-LOC-REP 3nsA-meet-PT-nsU 3POSS-elder.brother-REP  
 Himal-lam la-yakt-he. <KP79b>  
 H.-MED return-IPFV-PT

She was going to the Himālaya, but halfway she met her elder brother Marga, who was coming back from the Himālaya.

- b. Atoll-e honn-ab-a-ŋ-naa to-na Paṣpatī-ha  
 H.-LOC appear-come.ACROSS-SUBJ-e-TOP UP:TRANSP-ART P.-GEN  
 gari ŋ-yakt-he. <K24>  
 car come.DOWN-IPFV-PT

When I arrived over here in Atol, the Upper Paṣpatī [Company]'s truck was just coming down.

- c. na asen-ba ŋs-i-naa n-cog-yakt-he. <G5.58b>  
 DEM yesterday-LOC come.DOWN-1p-TOP 3nsA-make-IPFV-PT

This one they were constructing when we came down the other day.

More examples illustrating the same configuration as in (7.17) are (5.2b), (5.3b), (5.6), (5.24) and (5.26) in Chapter 5.

## 7.2 Defeasability and the pragmatics of events and states

I have contended that the perfective meaning of the simple form is pragmatically implicated rather than semantically encoded. One reason for this, discussed in the preceding section, is that the meaning can be calculated on the basis of the Quantity Maxim and the observation that the simple form is integrated into a four-valued Horn scale <INCEPTIVE, TEMPORARY, IMPERFECTIVE, Ø>. This was discussed in the preceding section. Another reason for treating the perfective value of the simple form as an entirely pragmatic matter is that this value is defeasible in specific situations. If my hypothesis is justified, there should be contexts in which the simple form can substitute for a cursive aspect form. What we should expect is that, in highly specific situations, the simple form can refer to an event (a) that is in progress at the moment of reference but (b) that

this aspectual nature is not highlighted, i.e. not brought to special attention. This effect is indeed found in at least three contexts: with special verbs, with nominalisation and with static situations. I will discuss these in turn.

Speakers sometimes use the simple form instead of the temporary form even if the situation is temporally extended at the time of utterance. This is especially typical for verbs of thinking and speaking. Consider the contrast between the temporary and the simple form in the following examples.

- (7.18) a. *khɔi, ŋka-lagi-na lis-e mitd-het-na.* <VIII21b>  
 INIT 1s-BEN-TOP be-PT think-TEMP-e  
 What'ya think?, as for my part, I think it's done.
- b. *ŋka-ha a-bicar-ŋa lis-e mii-ʔ-ŋa,*  
 1s-GEN IPOSS-thought-OBL be-PT think-NPT-e  
*utti-ro hola mii-ʔ-ŋa.* <VIII20a>  
 this.much-ID probably think-NPT-e  
 In my opinion I think it's OK, that's probably all, I think.
- (7.19) a. *na-na im-ma-ulo konn-het.* <V164>  
 DEM-TOP lie-CIT-CONTR want-TEMP  
 But he wants to sleep.
- b. *ŋka-na yaŋ hit-ma kōi-ʔ-ŋa tʌʌ phursad ŋ-wa-ni.* <G3.70a>  
 1s-TOP DISTR look-CIT want-NPT-e but free.time NEG-be-NEG  
 I want to watch [the *Samitaŋ* ritual] but I have no time.
- (7.20) *male, ŋka cekg-het-na mu!* [*describes a situation at length...*]  
 INIT 1s say-TEMP-e OBV  
*i-na par-do aʔ-yu-no ceu-ʔ-ŋa.* <VIII31b>  
 DIST-DEM manner-ID visible-NPT-CONF say-NPT-e  
 Well, I am telling you, [...] that's the way it looks, I tell [you].

According to consultants, the difference between the temporary and the simple form seems to be the following. The simple form implicates less certainty, confidence or definitivity about the situation than the temporary aspect. This implicature is often exploited in argumentation so as to vary the force and commitment attached to a statement. Sentence (7.21a) would not be an effective reproach if it were in the simple form. On the other hand, the simple form in (7.21b) is most suitable to display the speaker's uncertainty about the event's reality (reinforced by hedging with *hola* 'probably').

- (7.21) a. han paj phokg-het-ka! <G5.25b>  
 2s lie raise-TEMP-2  
 You are lying!
- b. 'itti bela khim n-nekg-het' mi?-yu hola. <G3.64a>  
 this time house 3nsS-clean-TEMP think-NPT probably  
 He probably thinks, 'they are cleaning the house [only] now.'

The 'certainty' effect of cursive forms directly follows from the Minimisation Principle operating on the Horn scale <INCEPTIVE, TEMPORARY, IMPERFECTIVE,  $\emptyset$ >. If the simple form is chosen instead of the temporary, although the temporary could have been used, this option implicates that the speaker does not want to say as much as s/he could in the given situation. Therefore, the utterance is understood as less assertive than the temporary. The unmarked, more frequent choice for ongoing events is the temporary or, depending on the mood, the imperfective. This holds true also for verbs of thinking and speaking, even for verbs like *mitma* 'to think, remember, consider'. The temporary form of such verbs does not implicate 'activity' as would be the case for the English progressive (cf. *He is thinking/rememering* vs. *He thinks/ remembers*). This is demonstrated, for instance, by the following example where the subject referent appears to be in an uncontrolled experiencer rather than agentive role. (Support for this comes from the parallelism of *mitma* 'to think' and *munditma* 'to forget' in (7.22a)):

- (7.22) a. m-mitd-hett-u i? male i? m-munditt-he i? <IV6>  
 3nsA-remember-TEMP-3U Q NO Q 3nsA-forget-PT Q  
 Do they remember it or not? Have they forgotten?
- b. nka gundri akg-het mitd-het-na. <G5.31b>  
 1s straw.mat weave-TEMP think-TEMP-e  
 I think he is weaving a mat.

Another situation where the perfective value of the simple form can be cancelled is found in nominalised clauses. As shown in Bickel (1995c), nominalisation in Belhare serves two basic purposes, viz. focalisation and subordination (more precisely, complementation and relativisation). In both environments, the simple form can apply to ongoing situations if they are conceptualised as rounded-off wholes. Such a conceptualisation occurs under two conditions: first, if the main function of a proposition is not to describe a situation but rather to re-assure the hearer of a fact and second, if in a complement construction the immediate discourse interest lies more in the matrix than in the subordinate clause.

A proposition is frequently encoded in a predicate focus construction in order to re-instantiate a controversial variable of discourse (Bickel 1995c). Consider the following beginning of a narrative with the nominalised clause ending in *ncogaha* 'they-did-N'.

- (7.23) poila-na-bu maŋ-lo manua-lo barobari mun dhub-yakt-he  
 first-TOP-REP deity-COM human-COM equal talk-IPFV-PT  
 biha-bu barobari n-li-yakt-he-bu-ndo. hūdakheri khe  
 marriage-REP equal 3nsS-be-IPFV-PT-REP-CEXP and.then MDEM  
 maŋ-ŋa cok-kai?-s-u-ha-ro ŋke-a-cha  
 deity-OBL do-UP-TR.PERF-3P-N-ID Ipi-OBL-ADD  
 cou-t-u-m-no. abo poile ramaŋ n-cog-yakt-he, hAgi?  
 do-NPT-3U-1pA-CONF now first R. 3nsA-do-IPFV-PT OK  
 abo maŋ-lo manua-lok-phu biha bari n-cog-a-ha.  
 now deity-COM human-COM-REP marriage ECHO 3nsS-do-SUBJ-N  
 maŋ-ha u-cha manua-ŋa tar-he ki... <IV102Bf>  
 deity-N 3POSS-child human-OBL bring-PT SEQ

Before, gods and humans used to talk to each other and to marry each other on an equal basis. And then, also we<sup>pi</sup>, we<sup>pi</sup> do exactly as the gods did. Before, they used to do the hunting ritual *ramaŋ*, right? Now, it's that gods and humans inter-married. There was a girl of a god that a human married and then...[follows the account of how gods and humans went hunting].

In this example, the speaker first provides some crucial background information in the imperfective aspect. For the subsequent story the most central fact to know is that *bihabu barobari nliyakthebundo* '[gods and humans] used to marry each other on an equal basis'. Just before plunging into the main story line this piece of information is recapitulated as an established fact. Although the proposition refers to the same imperfective situation as before, it now appears in the simple form. This is possible because, at this point of discourse, the proposition is an established matter of fact. It is used to instantiate the thematic variable of the story, viz. the relationship between gods and humans. The aspectual nature is no longer of any concern. This is of course very close to the so-called denotative function (*obščefaktičeskoe značenie*) discussed in Chapter 2, even though the Belhare construction is based on focalisation (see Bickel 1995c for further discussion of this point).

The other function of nominalisation is complementation. If the focus of interest is on the matrix clause, the aspectual value of the subordinate proposition is backgrounded and loses relevance. This overrides the pressure of the Sufficiency Principle to use a cursive form for events *in cursū*:

- (7.24) a. maʔi-chi m-pind-a-ha nis-e-ŋŋ-ha mu. <IV4>  
 person-ns 3nsS-run-SUBJ-N see-PT-1sA-N OBV  
 But it's true that I have seen people running around!
- b. jaile-cha yaŋ nak-kha ŋ-khemm-at-ni-ŋ. <G4.59a>  
 ever-ADD DISTR ask-N NEG-hear-PT-NEG-1sA  
 I have never heard him begging.

Notice that the emphasis in these examples is on the content of the matrix. In (7.24a) this is underlined by the addition of *mu*, a focus particle indicating that the speaker finds his claim obvious and uncontroversial. Where the emphasis is not put on the matrix clause, the subordinate clause is open to aspectual determination:

- (7.25) i-khe-ʔwa phik-ca-yakt-u-ha nis-e. <FS31>  
 DIST-MDEM-LIKE pick-eat-IPFV-3U-N see-PT  
 She saw him picking and eating like that.

Finally, another important context where the simple form does not necessarily have a perfective value is associated with states. The Sufficiency Principle requires use of the strongest form in a Horn scale that fits the situation referred to. With dynamic events developing at the moment of reference, this triggers the use of a temporary or, if applicable, an inceptive form since these forms best fit the nature of the situation. The imperfective would implicate continuation (see Chapter 5) and the simple form would not be informative enough. Notice that the pragmatic computations include the condition that the form chosen should fit the (cognitive) nature of the event. This nature is determined on the basis of (presumably universal) principles like the 'Now' Principle introduced in (5.32) of Chapter 5. The principle says that we normally do not have adequate evidence about a situation beyond 'now'. This is why the temporary rather than the imperfective is the most fitting form for ongoing situations. The match holds without qualification for dynamic situations: normally, we have evidence about such situations only for a restricted stretch of time. Matters are different, however, when it comes to static situations. There is a pre-condition to the 'Now' Principle which requires different aspectual treatment of states and events: unlike dynamic events, states are not necessarily articulated in time. This observation is captured by the (universal) principle introduced in Chapter 2 (2.24):

- (7.26) One single point of time can be enough to evaluate whether a certain state holds or not.

This principle makes it possible that for states an aspectually unmarked form can be as good a choice as a cursive aspect, which signals something about the temporal structure and development of a situation. Whereas with dynamic events the choice of a simple form would normally implicate perfectivity, such an implicature does not typically arise with states. This is so because for states the simple form is informative enough, since according to (7.26) there is no need to assess an extended temporal structure. As a result, states are often encoded in a simple form:

- (7.27) a. u-sam          gagro-e          thak-ma    khe-yu. <G4.36b>  
 3POSS-breath    large.water.jar-LOC    collect-CIT    must-NPT  
 One has to collect the scent in a large jar (when distilling).
- b. ku-yu,          eŋ-yuk-cha. <G3.69b>  
 feel.warm-NPT    light-NPT-ADD  
 [A sleeping bag] feels warm and is also light [to carry].
- c. cor-chi    n-lu-yu. <G4.3a>  
 thief-ns    3nsS-perceptible-NPT  
 [I] have the impression that there are thieves around.
- d. han-chi-nari    n-tuu-ʔ-ni          iʔ <G4.55b>  
 2-dPOSS-nose    NEG-hurt-NPT-NEG Q  
 Don't you<sup>d</sup> feel cuckolded? (Literally, 'Doesn't your<sup>d</sup> nose hurt?')

However, a 'perfective' reading is not impossible with states either. An instance was (7.4). As will be discussed in detail in Chapter 12, ingressive-phasal predicates in the simple form are systematically ambiguous between an ingressive and a state reading. The ingressive reading derives from the perfective value of the simple form, the state reading from the 'zero' value of the same form:

- (7.28)    cuŋ lus-e.  
 cold perceptible-PT  
 It got cold *or*: It was cold

Often the past form is used with the ingressive reading (7.29a) and the non-past form with the aspectually unmarked state reading (7.29b). (Example (7.29a) is from a mythological account of the origins of goddess *Mura*)



- (7.29) a. abo Tin Killa Mura ne-e ar-he. <X18>  
 now Three Edge Grandmother LDEM-LOC located-PT  
 Now, the Grandmother of the Three Directions came to be here.
- b. na Anđruŋ-na Legua-e a-yu. <G4.48a>  
 DEM A.-TOP L.-LOC located-NPT  
 As for this Anđruŋ, it is situated in the Leguvā village area.

In Chapter 5, I shortly reported on how people encode artificial ('space game') scenarios that are ambiguous between a dynamic and a static interpretation. Interpreting them as static, speakers may opt for a simple form or an imperfective. An example was presented in (5.34), others are the following. Notice in (7.30a) the immediate substitution of the temporary for the simple form. This phenomenon is quite common in this type of cognitively ambiguous setting.

- (7.30) a. pheŋsaŋ-ŋa taer khoiʔ-t-u. <V151>  
 right-OBL tyre touch-NPT-3U  
 He touches the tyre with his right [arm].
- b. ghora-a ŋke-cha ka-hii-ʔ-ni, hel-leŋ hitd-hett-u-no? <VIII29a>  
 horse-OBL 1p-ADD iU-look-NPT-NEG where-DIR look-TEMP-3U-CONF  
 Also, the horse does not look at us, so where is it looking?

By using the simple form, the speaker ignores the dynamicity of the verb, and with it the temporal articulacy of the situation.

Principle (7.26) is based on a notion of temporal development, i.e., on the time course of a situation. This is not to be confused with temporal location, i.e., with time in relation to other times and situations. Irrespective of the dynamic vs. static contrast, simple form predicates can and often are situated at a certain time. Consider the following instances.

- (7.31) a. i-na bela u-yam tug-he <G3.70b>  
 DIST-DEM time 3POSS-sickness hurt-PT  
 That time, he was sick.
- b. ni-ga-ni n-cai-t-i-n-do <KP15a>  
 see-RECIPR-see NEG-AUX-NPT-1p-NEG-CEXP  
 But from now on, we won't see each other.

Thus, claiming that states differ from dynamic events in that they are not necessarily perceived as temporally articulated, does not entail that they also behave differently with respect to their temporal location. The difference bears only on aspectual properties in a narrow sense.

Since states can be encoded by the simple form without necessarily implicating perfectivity or any other non-cursive quality, the question arises as to the difference in pragmatic meaning effects between the simple and the cursive forms. The difference is very similar to what we observed above with dynamic predicates: the simple form suggests a less definitive, more generic statement than the corresponding temporary form would implicate. This results from the semantic restriction of the temporary to temporally limited situations. A telling example is the contrast between temporary *suhet* and simple *suyu* from *suma* 'to be sour'. The temporary form is suitable, for instance, as a comment on beer, but not with regard to, say, a lime. Limes are intrinsically sour, the state is not temporally limited. Therefore, only the simple form *suyu* is a felicitous predication of a lime. The imperfective form *suyau*, finally, would add a continuative value, which in this example could only be understood as an irony along the lines suggested in Chapter 5. In the past system the imperfective is the only cursive aspect form, whence *suyakthe* does not have a continuative connotation. This form merely places more emphasis on the past state, whereas simple past *suse* would be rather neutral.

The following examples illustrate these observations with actual discourse data. Whereas the temporary in (7.32a) implies the current rather than general validity of a state, the more generic simple form in (7.32b) is employed to reinforce the complaint of the hero (the Hindu god *Rāma*) that he has lost his wife.

(7.32) a. i-gira    musta                    cog-a    ηη-hi-hett-u-n,            hera! ...  
 one-NHUM land consolidation do-SUBJ NEG-able-TEMP-3U-NEG see! (Nep.)

koi-ηa    dher    jʌsto... abo    yeti    limbu-chi-ηa  
 some-OBL much like.this now what L.-ns-OBL

mi-η-pi-hett-u-n. <KP33b>  
 NEG-3nsA-allow-TEMP-3U-NEG

Now they cannot make one single land combination, see! ... some, actually quite some... now what [to do?] the Limbu people do not allow them [to measure out the land.]

b. ηka-ha    a-suami    hir-a                    ηη-hiu-ʔ-ni-η. <KP61a>  
 1s-GEN 1POSS-wife look-SUBJ NEG-able-NPT-NEG-1sA

Never will I be able to see my wife again!

If the situation is clearly demarcated in time, the temporary is the only option. The simple form of *yuyina* 'to be (locally)' would not be compatible with the specification *iti bela* 'nowadays':

- (7.33) *iti bela hen-e yuyin-het-ka-no? <XII21>*  
 this time where-LOC be(loc)-TEMP-2-CONF  
 Where are you living these days?

As a fully grammaticalised category, the temporary has enough force to project temporal limitation even if the state does not necessarily require that. When leafing through a booklet of pictures to be named in an elicitation session, speakers produced temporary rather than simple forms. A typical example is the following.

- (7.34) *khor u-rakg-e kharayo atd-het. <V#8>*  
 corral 3POSS-interior-LOC hare visible-TEMP  
 One can see a hare inside the corral.

The forms render something like 'now one can see this, now that' or, with a spatial implicature, something like 'here on this picture one can see this, on the other picture one can see that'. The corresponding simple forms would implicate general and unlimited states. This is not incompatible with the discourse situation of (7.34), but does not suggest an idea of sequence and contrast.

### 7.3 Iteration, habituality, and distribution

Another domain of situations where the simple form often does not have a perfective value are iterations. This does not come as a surprise since iterations are known to have properties similar to states (see Chapters 2 for some discussion and references). As with ordinary states, repetitions can be encoded by the simple form as readily as the cursive forms. The difference is one of implicature. Whereas the cursive forms all highlight the iteration and underline its duration, the simple form usually implicates the integration of repetitions into a single over-all description. Consider the following example.

- (7.35) *chel-ap n-cog-ya-att-u-n, ekdam sammundra-ko hawa*  
 shelter-INT NEG-AUX-IPFV-PT-3U-NEG intensively ocean-GEN wind  
*ta-yakt-he lo-no. ekdam sammundra-et-na i-khe-?wa*  
 come-IPFV-PT OK-CONF intensively ocean-LOC-TOP DIST-MDEM-LIKE  
*cok-sa ta-yu-no. <IV129B>*  
 do-SS/T come-NPT-CONF

It is not sheltered off, there is a steady wind from the ocean coming, it comes like that from the ocean.

The speaker describes the wind as coming incessantly before summarising this situation as an integrated whole which also holds in the present and is not expressly specified for temporal characteristics. This is further underlined by the change from dissociative (*tayakthe*) to non-past (*tayu*) tense.

The sequence of forms is reversed in the following examples, but again the imperfective forms highlight the durative and distributed quality of the situation whereas the simple form merely denotes the situation.

- (7.36) a. uile na pirthibi poms-a-na bela it-cha ŋ-watt-he-ni [...] [  
 before DEM earth rise-SUBJ-ART time one-ADD NEG-be-PT-NEG  
 suru-e i-gira pit bhawan-na cog-he ani sum-barj  
 begin-LOC one-NHUM cow god-OBL make-PT and.then three-HUM  
 maʔi-chi cog-he-chi kina-huŋ-go in-kha maʔi-chi cama  
 human-ns make-PT-nsU SEQ-ABL-PTCL DIST-DEMns people-ns food  
 ca-ma mi-ŋ-hi-att-u-n, mi-n-tokg-att-u-n ani  
 eat-CIT 3nsA-NEG-able-PT-3U-NEG 3nsA-NEG-find-PT-3U-NEG and.then  
 i-na pit-na-cha ghās ca-ma n-tog-ya-att-u-n khali  
 DIST-DEM cow-TOP-ADD fodder eat-CIT NEG-find-IPFV-PT-3U-NEG only  
 cua-lo leu ani in-kha-a cāi i-na pit-to  
 water-COM moss and.then DIST-DEMns-OBL TOP DIST-DEM cow-ID  
 phī-sa n-ca-yakt-he. <KPØa>  
 milk-SS/T 3nsS-eat-IPFV-PT

Before, when this world arose there was nothing [...] in the beginning, god made one cow and he made three people and these people could not eat, they did not find [anything to eat] and this cow did not find grass to eat, only moss with water, and these [people] milked [this cow] and ate.

- b. make ŋ-roī-kha hit maʔi-mett-he, muliga lalik  
 maize 3nsS-grind:NPT-N look eU-cause-PT radish seed  
 n-tēi-t-u-ha hit maʔi-mett-he, muliga lalik-cha  
 3nsA-hit-NPT-3U-N look eU-cause-PT radish seed-ADD  
 n-tēi-yakt-he ani suicar-ŋahak-cha, gājar-ŋahak-cha. <K15>  
 3nsS-hit-IPFV-PT-N and.then beet-GEN-ADD hemp-GEN-ADD

He showed us<sup>pe</sup> how they grind corn, they showed us<sup>e</sup> how they crush radish seed, they were crushing radish seeds and then also beet and hemp [seeds].

The first example (7.36a) is from the beginning of a mythological story about the origins of the world. The speaker simply presents the situations before he paints a more impressive picture about the repeated despair and frustration of the first humans. The

stylistic effect in (7.36b) is similar if in a less poetic context. As in these examples and in (7.37a), iteration is sometimes restricted to temporal quantification. However, iteration often includes salient implicatures about multitudes of objects (7.37b) or about spatial distribution (7.37c).

- (7.37) a. u-dut-ŋa-bu dukkhi pi-yakt-he kina chitt-a  
 3POSS-breast-OBL-REP problem give-IPFV-PT SEQ find-SUBJ  
 ka-hi-ya-at-ni-bu. <IV145a>  
 iU-able-IPFV-PT-NEG-REP  
 [The man eater's long] breast would give her troubles and then she  
 would not be able to catch us.
- b. i-khe-na-ro n-si-yakt-he dher-ai maʔi-chi,  
 DIST-MDEM-TOP-ID 3nsS-die-IPFV-PT many-EMPH human-ns  
 male-na-ŋa mi-n-si-ya-at-ni. <V136b>  
 NEG-TOP-EMPH 3nsS-NEG-die-IPFV-PT-NEG  
 That way, many people died, otherwise they wouldn't have died.
- c. pahar-lamma ŋ-khaʔ-yakt-he mol-lamma ŋ-khaʔ-yakt-he  
 hill-MED 3nsS-go-IPFV-PT down:TRANSP-MED 3nsS-go-IPFV-PT  
 jaʔi-lamma ŋ-khaʔ-yakt-he. <V135b>  
 however-MED 3nsS-go-IPFV-PT  
 They would go via the hills or down via [the plains], by whatever way  
 they would go [to Kathmāṇḍū].

In the following example the imperfective morphology of the subordinated verb strongly implicates a plurality of objects. In the matrix clause they are summarised in a single event, which requires simple form morphology:

- (7.38) m-pok-teī-yakt-a-ch-u-ha kop-khutt-he-ŋ-chi-ŋ <G5.49a>  
 3nsA-leave-TEL-IPFV-SUBJ-d-3U-N pick.up-take-PT-1sA-nsU-1sA  
 I picked up and took away all they<sup>d</sup> left behind.

The iterative situations that the simple form can describe fall into two major classes, based on whether aspectual choice has the level of the individual sub-event in scope or the level of the overall sum of repeated events (see Chapter 2). If operating on the individual sub-events, the simple form functions like a perfective, and imitates aspectual usage similar to what we have observed in Czech. The important difference from this language is of course that the Belhare simple form is perfective only by implicature and not by semantic entailment. The following examples illustrate sub-event scope:

- (7.39) a. rasin khu-yakt-he kina-huŋ perasut-lam aī-yakt-he bākass-e  
 uncooked.rice carry-IPFV-PT SEQ-ABL parachute-MED drop-IPFV-PT box-LOC  
 pek n-cog-he kina maʔi-khu-yakt-he, jaŋgal jaŋgall-e. <IV126b>  
 pack 3nsS-do-PT SEQ eU-carry-IPFV-PT jungle jungle-LOC

They would bring rice and they would drop it by means of parachutes, they made packs in boxes and brought it to us<sup>e</sup>, all over in the jungle.

- b. rum ka-ŋ-pi-yakt-he i-khe-huŋ-na kitma  
 rum iU-3nsA-give-IPFV-PT DIST-MDEM-ABL-TOP fear  
 ma-haʔ-yu. <V136B>  
 lost-TEL-PT

They would always give us rum [before a battle], so the fear disappears.

In (7.39a), the simple form *ncoghe* ‘they made’ refers to the perfective quality of preparing the food distribution, the spatially extended quality of which is highlighted by the imperfective forms *aīyakthe* ‘they dropped’ and *maʔikhuyakthe* ‘they carried to us<sup>e</sup>’. Similarly, in (7.39b), the simple form *mahaʔyu* ‘it gets lost’ captures the instantaneous tranquilisation of the individual Gurkha soldier, whereas the preceding imperfective emphasises the repetition and distributive nature of the British policy.

Also in the following examples, the simple form is used to highlight the aspectual nature of the individual sub-events of the overall repetition.

- (7.40) a. ika-a gaŋdi thaŋ-yu? <G5.35a>  
 why-OBL throne go.UP-NPT

Why does [the false medium] step on the throne again and again?

- b. semba hiʔwa yoŋ-yu raicha. <G3.97b>  
 night wind stop-NPT DISC

It seems that the wind stops at night.

- c. hen-e hen-e tom-t-i. <V152>  
 where-LOC where-LOC disoriented-NPT-1p

Here and there we don’t find our way [in Kāthmāṇḍū].

If the event is encoded by a simple form, the iteration is often highlighted by the exclamatory adverb *ekdam* ‘incessantly, always, intensively’, which is borrowed from Nepali.<sup>1</sup>

<sup>1</sup> and literally means *ek dam* ‘one (single) breath’, i.e. ‘without breathing in between’.

- (7.41) a. ekdam hii?-t-u, hapta-e piche! <G4.32b>  
 incessantly look-NPT-3U week-LOC every(temp.)  
 She always watches [the movies], every week!
- b. ika-a dukkhi pi-ma-chi, ekdam?  
 why-OBL trouble give-CIT-nsU incessantly  
 dukkhi piu-t-u-m-chi-m-ga! <G5.44b>  
 trouble give-NPT-3U-2pA-nsU-2pA-2  
 Why always trouble them? You<sup>p</sup> always give them troubles!

In the cases just illustrated, the simple form implicates a non-generic notion of repetition because the aspectual value characterises the boundaries of the individual sub-events. As we saw earlier, the simple form can also apply to static predicates without implicating perfectivity. This use is also possible with iterations. The pragmatic result is a generic reading of the form because the aspectual nature of the sub-events is backgrounded. What is more salient is the resulting over-all quasi-state. In the following examples, the simple form serves to assert or question a certain property or behavioural quality of the subject referent.

- (7.42) a. hi n-ca-yu! <G3.64b>  
 shit 3nsS-eat-NPT  
 [Dogs] eat shit.
- b. u-mar?-ra-go-kolo ka-chem-?-ni. <G5.6b>  
 3POSS-ripe.stage-OBL-PTCL-CONTR iU-sting-NPT-NEG  
 But in their cooked stage [nettles] don't sting.
- c. nis-u-r?-cha mund-ii?-t-u-r?. <IV117b>  
 know-3U-1sA-ADD forget-ACCEL-NPT-3U-1sA  
 I forget even what I see.
- d. mar?-ra n-yur?-ratt-u-nn-ha-e r?-wai-t-i-n-na. <IX37>  
 god-OBL NEG-keep-TR.PERF-3U-NEG-N-LOC NEG-wander-NPT-1p-NEG-e  
 We<sup>pe</sup> don't go about where god doesn't guard [the place].

Very close to this reading is the function of the simple form in the following examples.

- (7.43) a. A: khali yeti yeti cek-sa-etlo yur?-yu, ur?  
 only what what say-SS/T-RESTR be(loc)-NPT RH  
 She just sits there and says something.

B: ka-cī-yu-ndo mura, 'khe mett-u-ai,  
 iU-teach-NPT-CEXP grandmother MDEM cause-3U-EMPH  
 khe mett-u' cek-sa.  
 MDEM cause-3U say-SS/T  
 Grandma teaches us<sup>pl</sup>, saying 'do it this way, do it that way!'

A: tʌʌ appi-ro ŋ-khoŋ-ʔ-ni. <VIII33b>  
 but self-ID NEG-play-NPT-NEG  
 But she does not play herself.

b. dui khēp khat-ti-yu. <G3.106b>  
 two time go-RESTR-NPT  
 He only goes twice or so [to the hospital].

Here, the simple form is used to characterise somebody in a reproachful way. In the first example (7.43a), the interlocutors make fun of their grandmother who was always intervening and commenting when they played the 'space games' (cf. Chapter 5) but would never expose herself as a participant. In the second example (7.43b), the speaker complains about the character of a young fellow who would never go to the hospital frequently enough even when he needs regular medical observation.

The difference between 'pure' iteration and habituality is only pragmatic. It is no surprise, therefore, that the two shades of meaning may co-occur in a single utterance such as the following.

(7.44) han-na Kathmandu-e sappe wai-ka, uŋ? <V153>  
 2-TOP K-LOC all wander:NPT-2 RH  
 As for you, you reach every place in Kāthmāṇḍū, don't you?

The simple form in this example describes a general characteristic of the cosmopolitan addressee and, at the same time, it refers to an actual repetition in visiting the various places of the capital.

What is important is that unambiguously generic statements, i.e., statements like (7.42a) or (7.42b), can be encoded only in simple forms. Cursive aspect markers are excluded and constructions like *kochu-chi hi n-ca-yau* [dog-ns 3nsS-eat-IPFV] are rejected as generic statements ('dogs eat shit') and can only have a continuative meaning ('...keep eating shit'). The reason for this is that any cursive form brings with it a notion of temporal articulacy that is in conflict with the characterising nature of generic statements.



## Chapter 8

### The spatially distributed temporary aspect

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The most salient semantic feature of the spatially distributed temporary (henceforth abbreviated to 'SDT') is reference to different places where the event is going on. In other words, an SDT form describes a spatially distributed event, much like the 'spatially defocused continuous' aspect in neighbouring Limbu (van Driem 1987: 187). In European languages, ambulative constructions like Dutch *hij liep te hoesten* 'he went around coughing' are the closest equivalents (see Ebert 1996 for a recent survey).

Spatial distribution of an event can implicate motion that is concurrent and temporally homomorphous with the event. In (8.1a), somebody is hanging his wet shirt out of the window of a bus that is passing by at the moment of utterance. (8.1b) refers to another activity performed during a bus ride, if only a more common one. (8.1c) describes how a wedding procession is passing by and in (8.1d), the SDT describes the trajectory of the tracking.

- (8.1) a. namphot-kon-u.<G4.34b>  
sun dry-SDT-3U  
Someone is drying [his shirt] in the sun.
- b. m-pe-gon <G4.33b>  
3nsS-vomit-SDT  
They are vomiting.
- c. la-cha rŋŋ-u-gon. <G3.88b>  
dance-ADD 3nsS-dance-SDT  
They are even dancing while walking.
- d. un-na-cha i-na-ro et-kon-u-ni. <KP10b>  
3-OBL-ADD DIST-DEM-ID track-SDT-3U-ASS  
Of course, he is tracking the [ways of the gods], too.

Often, however, motion is only interspersed between repeated instances of the main event. In (8.2a), the subject referent is engaged in a survey on houses by the roadside and is walking from place to place whilst taking notes. Both (8.2b) and (8.2c) refer to typical activities during festivals, which take place simultaneously on several farms.

- (8.2) a. *rotd-e i-barj-ŋa chap-kon-u.* <G4.19a>  
road-LOC one-HUM-OBL write-SDT-3U  
Somebody is walking around taking notes on the road.
- b. A: *a-ppa yu-ba yuŋ-yu hola.*  
1POSS-father ACROSS-LOC be(loc)-NPT probably  
Father is probably over there [at our brother's place].
- B: *a: yeti! gaũ-gaũ raksi iŋa uŋ-gon-u!* <G3.62b>  
INTERJ what village-village brandy beer drink-SDT-3U  
Ah! what'ye think! He is going around drinking brandy and beer!
- c. *kaepma-chi hit-kon-u-chi.* <G3.83a>  
girl-ns look-SDT-3U-nsU  
He is going around watching the girls.

In contrast to ambulative constructions, the Belhare SDT does not necessarily imply motion. The form only requires that the situation is spatially distributed. In (8.3a) the SDT suggests that the paddy is ripening all over the fields and (8.3b) describes a situation where somebody is washing the dishes scattered around at the water place. Similarly in (8.3c), the sentence does not entail spatial dislocation but suggests a picture where a bunch of drunkards try to convince each other to leave the shop and to go home. They sit on a bench and grab one another, trying to make each other go.

- (8.3) a. *khe-ʔwa-rok-phu ŋj-and-u kina-huŋ-go tum-gon-bu*  
MDEM-LIKE-ID-REP 3nsA-sow-3U SEQ-ABL-PTCL grow.up-SDT-REP  
*ŋj-hek-kon-u arko-bu keŋ-gon tum-gon-bu ...*  
3nsA-cut-SDT-3U other-REP ripen-SDT grow.up-SDT-REP  
*etti-k-ai!* <IV119B>  
that.much-GEN-EMPH  
They sow [paddy] and it grows all over, they cut it everywhere, other  
[seedlings] grow and ripen all over...so much!
- b. *thalikhore wat chi-gon.* <G3.101a>  
plate cup clean clean-SDT  
He is cleaning plates and cups.
- c. *sat-ka-sat n-ca-gon, maʔi-chi.* <G5.29a>  
take.out-RECIPR-take.out 3nsS-AUX-SDT human-ns  
People are taking each other out [of the shop].

The concept of a random spatial distribution appears to be in conflict with verbs that already entail a specific spatial trajectory. This restriction holds for the so-called 'oriented motion verbs' which I briefly discussed in Chapter 6. The group includes items like *khatma* 'to go' and *tama* 'to come' as well as a number of verbs denoting 'up', 'down' and 'across' trajectories. The SDT is incompatible with all members of the group (e.g. *\*khat-kon*, *\*ta-gon*, etc.). The restriction is limited to the set and does not extend to motion verbs in general. Other verbs of motion do not specify a trajectory. This makes it possible for the SDT to describe the activity as spatially distributed. The effect is that the motion is envisaged as occurring in several places. This co-implicates temporal iteration, just as in the examples in (8.4). Very common combinations of the SDT with motion verbs are the following. The forms are used to emphasise the distributed and undirected nature of the event.

- (8.4) a. u-wekkele-bu wa-gon. <KP28b>  
 3POSS-single-REP wander-SDT  
 He is wandering about everywhere on his own.
- b. pin-gon. <KP78b>  
 run-SDT  
 He is running around.

Other combinations of the SDT with (unoriented) motion verbs are grammatical but extremely rare.

The SDT is quite similar to the cursive aspects in so far as it refers to events that are in progress or iteration at the moment of utterance. Like the imperfective, temporary, and inceptive, the SDT is not compatible with temporal adverbs that specify temporal limits. This is illustrated by (8.5a) and, for the temporary, by (8.5b). Such adverbial limitations require use of the simple or definitive forms (8.5c) (cf. examples (7.12) in Chapter 7).

- (8.5) a. \*dui din wa-gon-na ki la-hai-ʔ-ŋa.  
 two day move-SDT-e SEQ return-TEL-NPT-e  
 I will stroll about for two days and then I will come back.
- b. \*dui ghanta khonŋ-het-na ki khai-ʔ-ŋa.  
 two hours play-TEMP-e SEQ go-NPT-e  
 I shall be playing for two hours but then I will go.
- c. dui ghanta ŋ-khonŋ-e ki mun n-dhupt-he.  
 two hour 3nsS-play-PT SEQ talk 3nsS-talk-PT  
 They played cards for two hours and then they talked.

Like the temporary and the inceptive aspect, the SDT incorporates in its meaning present time reference and is incompatible with overt tense or mood marking. Thus, the temporal reference structures of the SDT form *hapkon* and the temporary form *mukghet* in the following example are identical:

- (8.6)    *i-baŋ-cha*    *hap-kon-ai!* ...    *Sapana-e?wa*    *mukg-het.* <G5.42b>  
          one-HUM-ADD    weep-SDT-EMPH    S.-LIKE                    sound-TEMP  
          One of [the children] is even crying around ...it sounds like Sapanā.

Another semantic component that the SDT shares with the temporary aspect is the notion of a temporally restricted period. As with the temporary aspect, this does not prevent the form from applying to iterated ('inactual') events, though. (8.7a) inquires about where somebody stays when wandering around in the hills and (8.7b) describes a new habit that the subject has taken up. Notice in (8.7b) the 'nowadays' implicature that is also characteristic of temporary aspect forms (cf. Chapter 5):

- (8.7)    a.    *yeti lot-kon-u?* <G3.94b>  
               what lie.on-SDT-3U  
               What is she sleeping on (when travelling around)?  
           b.    *sāco khu-gon-u.* <G4.32a>  
               key    carry-SDT-3U  
               Nowadays she is carrying the key around with her.

Also in parallel with the temporary, the only way to avoid an effect of temporal limitation is to substitute the imperfective in *-yakt*. In the case of the SDT this would deprive us of the notion of spatial distribution that is part of the marker's semantics:

- (8.8)    The SDT (*-kon*) marks spatially distributed, temporally limited situations associated with present time (i.e., open to influences arising from the present).

Belhare grammar does not leak here, though. There is a historical relic that solves the problem. This relic also provides a means to transpose the idea of the SDT into the realm of past or modally 'dissociated' events.

The SDT derives from an Aktionsart modifier that has the same shape and a similar meaning, but occurs in a stem position ( $\Sigma 5$ ) rather than a suffix slot (sf1 or sf2). The modifier is etymologically related to the Limbu verb *kɔmma?*, *-kɔnd-l-kɔn-* 'to cover on

foot, walk, walk down',<sup>1</sup> which suggests a Proto-Kiranti root \**kon*- 'walk' as the origin of the Belhare SDT. Used as a modifier, modern *-kon* behaves like other stems and shows diphthongisation in some environments (see Section 4.4). The marker is only attested in combination with the imperfective morpheme, which triggers the allomorph *-koĩ*. Example (8.8a) is from a mythological text describing how the humans lived in primordial times. (8.8b) ridicules a foreign development aid worker who failed to adopt the local customs and kept greeting people all day (even performing the socially highly marked *namaste* gesture). With the utterance in (8.8c) the speaker describes the advantages of marrying and taking one's wife along even when one has to travel around like a linguistic fieldworker.

- (8.9) a. *jaŋgall-et-to ŋŋ-ims-e, jaŋgall-et-to n-ca-he, jaŋgall-et-to*  
 jungle-LOC-ID 3nsS-sleep-PT jungle-LOC-ID 3nsS-eat-PT jungle-LOC-ID  
*ŋ-khoŋ-goĩ-yakt-he. <KP11b>*  
 3nsS-play-SDA-IPFV-PT  
 They slept in the jungle, they ate in the jungle, they played all over in the  
 jungle.
- b. *la um-sa khe: cok-koĩ-yakt-he. <G4.31>*  
 walk walk-SS/T MDEM do-SDA-IPFV-PT  
 He walked around doing like this everywhere.
- c. *mun dhup-koĩ-yak-ma-cha tou-t-u-m. <G5.24a>*  
 talk-SDA-IPFV-CIT-ADD can-NPT-3U-1pA  
 One has somebody to talk with wherever he is.

The restriction of the Aktionsart modifier *-kon* ~ *-koĩ* to imperfective environments is semantically motivated. Unlike the aspect marker *-kon*, the modifier does not incorporate a temporary aspect component but has an affinity to such a meaning: spatial distribution of an event implies either duration or iteration. In the nonpast tense, the 'Now' Principle introduced in Chapter 5 is relevant and requires temporal limitation. This motivates the temporary aspect component in the aspect morpheme *-kon*. Since the Aktionsart modifier *-kon* (~ *-koĩ*) does not include a non-past tense value in its meaning, the form shows no trace of a temporary aspect meaning, not even pragmatically. On the contrary, the form fills in the gap observed above. As a corollary, the aspect marker *-kon* is restricted to temporary situations. If one wants to capture a spatially distributed continuing situation, this must be expressed by the combination of the Aktionsart modifier *-kon* (~ *-koĩ*) with the imperfective marker in the non-past tense. The continuative effect of the imperfective

<sup>1</sup>Thanks to Karen Ebert for suggesting this cognate.

is the same as without *-kon* (~ *-koĩ*). Compare (8.10a) with (8.10b), which repeats example (5.13a) from Chapter 5.

- (8.10) a. *yep-koĩ-yau-t-i-ga!* <G5.21b>  
 stand-SDA-IPFV-NPT-2p-2  
 You<sup>P</sup> just keep standing around (instead of helping me)!
- b. *Ani yeb-yau-ka!* <G4.38a>  
 and stand-IPFV:NPT-2  
 And you<sup>S</sup> just keep standing (around, instead of helping me)!

Also the following examples illustrate the ‘continuation’ implicature that arises from the opposition of the temporary value of the SDT aspect marker and the imperfective.

- (8.11) a. *n-raŋ-goĩ-yau-t-u.* <K40>  
 3nsS-dig-SDA-IPFV-NPT-3U  
 They keep digging around everywhere.
- b. *un-na kharca an-goĩ-yau-t-u.* <X25>  
 3-OBL cost fill.in-SDA-IPFV-NPT-3U  
 [The king] keeps paying [for temple renovations] all over.

This suggests that the SDT aspect marker, or more precisely, its semantic feature ‘temporary’, is part of the Horn-scale <INCEPTIVE, TEMPORARY, IMPERFECTIVE, Ø> and is governed by the same pragmatic computations as the temporary vs. imperfective opposition discussed in Chapter 5. With non-past time reference, the best-fitting form is the temporary or, together with spatial distribution, the SDT. If there is situational evidence about continuation beyond the limits of ‘now’, the imperfective may be chosen. In this case, spatial distribution can be expressed only by means of the SDT Aktionsart modifier *-kon* (~ *-koĩ*) followed by imperfective aspect and non-past tense inflection. In situations with other than present time reference, the Aktionsart modifier is the only morpheme describing spatial distribution. Since there is no opposition with an SDT aspect marker, no continuation is implicated in this case (cf. (8.9) above).

## Chapter 9

### Between perfect and resultative

Belhare distinguishes two types of perfect marking. One of them (-*ŋa* ~ -*sa* ... -*khak*) is a plain perfect, indicating that there is a special relationship of a past event with the present. The meaning is quite similar to an English perfect. In the following example, the Aktionsart specifier -*hai?* signals telicity, which translates with the verb *khan-* as 'become beautiful'. The perfect in (9.1) signals that this process not only happened but that it is relevant for the present, for instance because the object of interest is visible at the moment of utterance. (Notice that in line with a general pattern discussed in Chapter 3, the perfect formative appears as -*hak* after sonorants but as -*khak* after obstruents; final /k/ is usually deleted word-finally.)

- (9.1) khann-hai?-ŋa-ha  
beautiful-TEL-INTR.PERF-PERF  
It has become beautiful.

The other marker (-*ŋe* ~ -*se*) I call a 'resultative perfect' or 'r-perfect' because, in addition to establishing a 'perfect' relationship between past and present, this marker indicates that the results of a prior event are still perceptible in the present. Thus, whereas in (9.1), it could be that, say, remnants of colouring suggest a former state of beauty, (9.2) implies that the object is still beautiful at the time of utterance:

- (9.2) khann-hai?-ŋe.  
beautiful-TEL-INTR.RP  
It is beautiful.

The r-perfect is different from a resultative in the sense of what we are used to in European languages (see Nedjalkov & Jaxontov 1988), because, as I will show, it can occur in transitive clauses and is compatible with 'retrospective' adverbials like *hale* 'before', *usamba* 'last night' specifying the time of the prior event rather than of the result. In this respect, the Belhare r-perfect defines a typological position between a plain perfect and a plain resultative. This position seems to be instantiated also by categories in other languages such as Mongolian (Dugarova & Jaxontova 1988) or Lithuanian (Nedjalkov & Jaxontov 1988).

Before discussing further the semantics and pragmatics of the two perfects in Belhare, a note on the morphology is in order.

### 9.1 The forms

In affirmative verb forms, both the perfect and the r-perfect come in two variants, an intransitive form characterised by the phoneme /ŋ/ and a transitive one characterised by /s/. The intransitive forms are used if the verb is lexically a one-place predicate (9.3a) or if a transitive verb is treated intransitively, i.e., as a passive (9.3b). The transitive variant applies to bivalent or trivalent verbs (9.3c) (see Bickel, in press-a, for discussion of Belhare diathesis and transitivity from a syntactic point of view):

- (9.3) a. siu-ŋe.  
die-INTR.RP  
It is dead.
- b. seiʔ-ŋe.  
kill-INTR.RP  
It is killed.
- c. seiʔ-se.  
kill-TR.RP  
S/he has killed it.

The transitive vs. intransitive opposition is neutralized in negative forms where perfect and r-perfect both contain the formative *-ŋatt*. The following table gives an overview.

	intransitive	transitive
r-perfect	-ŋe	-se
negative		-ŋatt
perfect	-ŋa...-khak	-sa...-khak
negative		-ŋatt...-khak

*Table 9.1: The morphology of r-perfect and perfect*

The common onset pattern in both transitive and intransitive forms suggests that the perfect and r-perfect are historically related. The vocalism of the two markers recapitu-



lates the difference between subjunctive (-*a*) and indicative (-*he*) past marking.<sup>1</sup> There is no evidence, however, that the current perfect vs. r-perfect distinction is in any way congruent with the mood distinction discussed in Chapter 4. Synchronically, the two perfects are also distinguished by the absence vs. presence of the formative *-khak*. Whereas the /ŋ/ and /s/ formatives directly follow the stem and fill out suffix slot positions sf1 and sf2, the desinence *-khak* is added at the end of the inflectional suffix string, i.e., behind the person, number and role specifying morphemes in slot positions sf3 through sf9 (see Table 3.1 in Chapter 3). This means that the perfect morphology consists of a circumfix or, more precisely, of a ‘simulfix’ (Hagège 1986). This is illustrated in the following.

- (9.4) a. tai-ŋa-chi-ha  
 come-INTR.PERF-d-PERF  
 We<sup>di</sup> have come.
- b. lui-sa-ch-u-ha  
 tell-TR.PERF-d-3U-PERF  
 We<sup>di</sup> have told him.

The *-khak* formative is homophonous with the nominaliser marker used in subordination and focus constructions (see Bickel 1995c). Moreover, the two signs occupy the same suffix slot position sf10. As a result of this distribution, one of the formatives gets apocoped if a perfect verb form is nominalised. Instead of \**siuryaha-ha*, the perfect form *siuryaha* ‘he has died’ is used in the relative clause construction (9.5a) without any modification. For comparison, (9.5b) illustrates a relative clause in the simple non-past.

- (9.5) a. siu-ŋa-ha      maʔi    u-laua-ŋa      ka-haʔ-yu <G5.39b>  
 die-INTR.PERF-N    human    3POSS-personal.soul-OBL    iU-bite-NPT  
 Dead people’s souls bite us.
- b. ʌni      m-phu-ŋa      khāi-kha    jagir  
 and.then    2POSS-elder.brother-OBL    good:NPT-N    civil.service  
 n-cok-piu-ʔ-ni-ga      iʔ <G5.27b>  
 3A-do-U.BEN-NPT-NEG-2    Q  
 And your brother won’t arrange a good position for you?

<sup>1</sup> and is historically related to these markers (see below). The /s/ onset probably derives from a reanalyzed causative or transitive stem augment (W. Winter, personal communication, Leiden, 17 June, 1995).

This formal identity notwithstanding, nominalisation and perfect marking must be clearly distinguished in a synchronic account of Belhare. 'Perfect' *-khak* is part and parcel of a single simulfixed morpheme and cannot be isolated morphemically. To detach *-khak* in a perfect form would result in an ungrammatical string and no function could be assigned to *-ŋa* or *-sa* alone. Moreover, perfect forms can constitute full-fledged utterances with no trace of a nominalised quality or any focus effect.

While synchronically distinct, the perfect derives historically from a nominalised construction, in a similar way to what is known from many other languages. cursory evidence for this are examples as in (9.6), where the perfect is followed by a copula.<sup>1</sup>

- (9.6) a. *kochu chomm-haiʔ-ŋa-ha yuŋŋa, i-ne-e. <G4.59b>*  
 dog crazy-TEL-INTR.PERF-N is DIST-LDEM-LOC  
 There is a dog over there that got mad.
- b. *simet-ŋaha m-phou-s-u-ha yuŋŋase. <K41>*  
 cement-GEN 3nsS-raise-TR.PERF-3U-N was  
 There is one that they have built of cement.

These sentences are syntactically ambiguous and can be understood either as periphrastic perfects or as nominal, participle-like constructions. In the following example, the distinction is minimal and the nominal construction is immediately followed by a regular perfect without copula.

- (9.7) *chuti tai-ŋa-ha yuŋŋase,*  
 free.time come-INTR.PERF-N was  
*chuti tai-ŋa-ha kina ... <IV134a>*  
 free.time come-INTR.PERF-PERF SEQ  
 There was holiday that had come, holiday had come and then...

The situation is reminiscent of what one finds in many modern Indo-European languages where the perfect goes back to a participle construction with a copula. The only difference is that the Belhare copula construction in *yuŋŋa* and *yuŋŋase* has existential (thetic) rather than predicative (categoric) function. The predicative copula in nominal sentences is usually zero (see Bickel 1995c).

The historical derivation of the perfect from a nominalised construction also explains the vowels in the *-ŋa* and *-sa* morphemes (Ebert, p.c.): the /a/ vowel is a reflex of the past subjunctive in *-a*, which, as we have seen in Chapter 4, is the preferred mood in

<sup>1</sup> The inflection of the copula is irregular: *yuŋŋa* is the non-past, *yuŋŋase* the past form. There is no aspectual differentiation possible.

nominalised clauses. The /e/ vowel characteristic of the r-perfect reflects the indicative past, i.e., a main clause 'tense'.

## 9.2 The perfect: current relevance of a past event

Following Maslov (1988), perfect and resultative forms specify a relation between two temporal planes, the plane of the event and the plane of the subsequent reference time. Both the Belhare perfect and the r-perfect signal that the event is relevant at the reference time but they put different emphasis on the two planes: the perfect focuses more on the event time, the r-perfect more on the result time. I will first discuss the plain perfect, particularly the features that distinguish the form from the simple past. The next section (9.3) compares the perfect and the r-perfect.

The crucial semantic feature of the perfect — and, as we shall see in section 9.3, the r-perfect — is to establish a relationship between a past event and the moment of reference. In most contexts, the explicit marking of such a relationship implicates what has come to be called 'current' or 'continuing relevance'. This implicature is highly suitable when somebody wants to explain a current situation by past events:

- (9.8) a. *chomm-hai?-ŋa-ha.* <G3.82a>  
 crazy-TEL-INTR.PERF-PERF  
 [He] has gone mad.
- b. *un-chik-na tu! Belhara-et-to m-pon-ŋa-ha ki!*  
 3-ns-TOP UP B.-LOC-ID 3nsS-born-INTR.PERF-PERF PRESENTATIVE  
*ani ŋker-riŋ sappe n-niu-t-u.* <V163>  
 and.then 1pPOSS-language all 3nsA-know-NPT-3U  
 They were born in Belhārā up there: [that's why] they all know our language.
- c. *khai, m-maiti-chi-a kosel ŋ-haũ-sa-k-kha!* <IV104b>  
 INIT 2POSS-wife's.relatives-ns-OBL ritual.present 3A-send-TR.PERF-2-PERF  
 Here you go!, your relatives have sent you a *koseñi*!
- d. *i-khe-ro khem-s-u-ŋŋ-ha-ndo, i-khe-ro*  
 DIST-MDEM-ID hear-TR.PERF-3U-1sA-PERF-CEXP DIST-MDEM-ID  
*mai?-t-u-ŋ.* <IV101a>  
 narrate-NPT-3U-1sA  
 I have heard it like that, I tell it like that.

- e. i-baŋ-ŋa      pheak    ŋ-khok-pi-rei-sa-k-kha      raicha! <G3.22b>  
 one-HUM-OBL hair      3A-cut-U.BEN-TEL-TR.PERF-2-PERF DISC  
 It looks as if somebody has given you a hair-cut!

Example (9.8a) was used to explain the strange current behavior of somebody and (9.8b) explains why some Tamang people can speak Belhare. (9.8c) justified a gift that the speaker is producing, and (9.8d) the way in which somebody tells a story. (9.8e) was an explanatory inference about the short hair of the addressee.

Explanation of a present situation is a very typical, if not the primordial discourse function of the perfect. This is not to say, however, that the definition of the perfect can be reduced to this function. The only condition that must be met for using the form is that there be an especially relevant relationship between a past event and the current situation. In the following example, this is guaranteed by the fact that the addressee is currently considering whether it is already time to go over to see friends (*endua* 'when' refers to the time of coming, not of telling):

- (9.9)      endua ab-a!                      n-lui-sa-k-kha? <G5.8b>  
 when    come.ACROSS-IMP    3A-tell-TR.PERF-2-PERF  
 When did they tell you that you should you come?

In the following exchange, speaker A pretends not to know what a rainbow is. B rejects this pretence by pointing out that Rainbow, being a lonely god, once seduced A's own relative. The perfect form *khai?suha* implies that this event has an important bearing on the present: it makes A's question obsolete if not ridiculous.

- (9.10)    A: na    yeti,    kubin?  
           DEM    what    rainbow  
           What is it, a rainbow?
- B: uile-bu    n-celi                      khai?-s-u-ha-bu  
               before-REP    2POSS-female.relative    take-TR.PERF-3U-PERF-REP  
               i-na                      kubin-ŋa-cha. <IV89f>  
               DIST-DEM    rainbow-OBL-ADD  
               Before that Rainbow took away even your relative!

Whenever a past – present relationship is specially relevant, the perfect is used. In contrast to the perfect, the past forms, i.e., the indicative (*-he*), subjunctive (*-a*) and negative (*-att*) past, are semantically neutral as to any such relationship but form a Horn-scale with the perfect:

(9.11) Perfect field: <PERFECT, PAST>

One situation in which a past – present relationship can become highly relevant is when talking about a co-present, visible object (*misen nima* ‘to know, recognize’ is an ingressive-phasal predicate that allows focus on its initial boundary, similar to Spanish *saper*; see Chapter 12 for discussion):

- (9.12) a. niu-s-u-k-kha i?  
 recognise/know-TR.PERF-3U-2-PERF Q  
 Have you recognised it? (Object is present.)
- b. nis-e-ga i?  
 know-PT-2 Q  
 Did you recognise it? (Object is absent.)

In this case, the Sufficiency Principle requires use of the perfect (9.12a). If the speaker used a past (‘dissociative’) form instead (9.12b), this would — by virtue of the Minimization Principle — implicate that the addressee’s knowledge has nothing to do with the present. This makes sense if the object of interest is absent, but is hard to imagine if the object is present. For this reason, the perfect is also far more suitable than the simple past in the following example. Here, the speaker has just found a pen that was lost for some time. The speaker now claims that the addressee threw it away:

(9.13) lepb-aĩ-s-u-k-kha! <G5.31b>  
 throw-DOWN-TR.PERF-3U-2-PERF  
 You have thrown it down!

If, in turn, something else than the relationship between past and present is more relevant in a conversation, the perfect is unsuitable. For instance, in (9.14), the manner of motion is pragmatically the most prominent part of the information, at the expense of the past – present relationship. Such a situation requires a construction with focus marking rather than a perfect form. The qualification *imbi chito* ‘how fast’ is put in focus by nominalising the clause (Bickel 1995c):

(9.14) imbi chito hond-a-ha (#hoi-ŋa-ha).  
 how fast appear-SUBJ-N appear-INTR.PERF-PERF  
 How FAST he came!

This observation further corroborates the claim that the *-khak* suffix in the perfect has not the focalisation value associated with main clause nominalisation.

In the examples discussed so far, the perfect marks a special relationship between a past event and the present. This relationship can also be transposed into the past, which establishes a pluperfect function. The difference is not overtly marked, however. In the following examples the perfect signals a prior event that bears relevance for a transposed moment of reference. This moment is contextually specified by surrounding past forms.

- (9.15) a. *cuptaŋ u-laŋ khe soĩ-s-u-ha hola abo*  
 right 3POSS-leg MDEM move-TR.PERF-3U-PERF probably then  
*i-gira u-laŋ-ŋa carka tim-s-u-ha*  
 DIST-NHUM 3POSS-leg-OBL spinning.wheel press-TR.PERF-3U-PERF  
*ani phaĩ-yakt-he hola. <KP14b>*  
 and.then spin-IPFV-PT probably  
 She had probably put her leg like this and then she had pressed down the spinning wheel with one leg and so she was spinning probably.
- b. *saikall-e cal-ap cok-sa tos-sa kha?-yakt-he*  
 bicycle-LOC handle-INT AUX-SS push-SS go-IPFV-PT  
*net-nahuŋ-go pheri u-topi*  
 LDEM:LOC-ABL-PTCL again 3POSS-hat  
*pok-teĩ-yei-s-u-ha. <IV33>*  
 leave-TEL-RELINQ-TR.PERF-3U-PERF  
 He was walking pushing the bike and there [he realised that] he had left his *topi* behind.
- c. *achumbu u-samba ra?-yakt-he. male-na-ŋa*  
 two.days.ago 3POSS-evening shout-IPFV-PT NOT-TOP-PTCL  
*ma-hai?-ŋa-ha. <X37>*  
 lost-TEL-INTR.PERF-PERF  
 Two days ago in the evening, [a tiger] was roaring [here]. Apart from that it has disappeared.

Notice that the adverbials *achumbu usamba* 'two days ago in the evening' in (9.15c) belong to the past tense clause *ra?yakthe* 'it was roaring' rather than the perfect form *mahai?ŋaha* 'it has disappeared'. With a perfect form, a temporal adverbial can only refer to the time of the prior event, never to the moment of reference. Thus, the adverbials in the following examples cannot establish a pluperfect meaning by themselves. They are interpreted as specifying the past moment when the subject got into a state or did something:

- (9.16) a. *namniŋ-et-nahuŋ misen niu-s-u-ŋŋ-ha.*  
 last.year-LOC-ABL know know-TR.PERF-3U-1sA-PERF  
 I have known him since last year.
- b. *bajarr-e niu-s-u-ŋŋ-ha, namniŋ chimmetniŋ. <G5.31a>*  
 bazaar-LOC know-TR.PERF-3U-1sA-N last.year year.before.last.year  
 I saw (i.e., got to know) [avocados] in the bazaar, years ago.
- c. *hale-ro hii?-s-u-ŋŋ-ha. <G5.6a>*  
 before-ID watch-TR.PERF-3U-1sA-PERF  
 I have watched [this movie] before.

This constraint is typical for perfect forms in many languages. Only the temporal layer of the prior event is accessible for adverbial specification, but not the layer of the time of reference.

### 9.3 The two temporal layers of the r-perfect

Like the perfect, the r-perfect establishes an explicit connection between the moment of reference and a prior situation. However, the r-perfect does this by way of explicitly describing a resulting situation. Thus, in (9.17a), the r-perfect form *riu-ŋe* describes a state that has resulted from the activities when building the road. (9.17b) refers to the result of coming up to a certain place:

- (9.17) a. *Dharan temm-ek-kha-e?wa ekdam riu-ŋe, lambu. <V151>*  
 Dh. UP-LOC-N-LIKE extremely turn-INTR.RP road  
 The road winds heavily up, just as above Dharān.
- b. *bottal nak-si kai?-ŋe. <G4.18a>*  
 bottle ask-SUP come.UP-INTR.RP  
 She is here to ask for a bottle.

Often, the resultant state denoted by the r-perfect is part of a larger situation:

- (9.18) a. *Λru dāda pok-khai?-ŋe i-n:et-to maidan yuŋŋa,*  
 other hill rise-TEL-INTR.RP DIST-LDEM:LOC-ID flat.ground is  
*i-ne-e maidann-e un-chik n-yuŋ-ŋe. <K27>*  
 DIST-LDEM-LOC flat.ground-LOC 3-ns 3nsS-settle-INTR.RP

There is another hill and there are some plains, they live there on the plains.

- b. lop-pak-cha i-na riŋ matd-het-to!... yu!  
 now-LOC-ADD DIST-DEM sound narrate-TEMP-ID ACROSS  
 yu-i-ne-e paŋiŋ yep-khai?-ŋe. <G5.34a>  
 ACROSS-DIST-LDEM-LOC old.man stand-TEL-INTR.RP  
 Even now he is telling that story!... Over there! The old man is standing over there! [telling the story]. (French *Le veillard s'est mis là-bas.*)

- c. pheri tai-ŋe raicha, cia hopb-het. <G5.41b>  
 again come-INTR.RP DISC tea drink.boiled.fluid-TEMP  
 He is here again, drinking tea.

The following example is taken from the transcripts of a 'space game' (see Chapter 5, Section 3) and refers to a static arrangement of a toy truck:

- (9.19) tiphar ʌgari leŋ-ŋe makkha i? tu! ... mu! mul-lamma  
 truck front turn-INTR.RP NOT Q UP DOWN DOWN-MED  
 kat-ket-kha-e?wa. <VIII 5b>  
 come.UP-INC-N-LIKE

The truck is turned to the front, isn't it? Up there!... Down there! as if it is coming up from down there.

While a state is certainly the most common type of result encoded by the r-perfect, the form does not semantically entail such a quality. The following example suggests a dynamic situation seen as the result of a prior event. The prior event is the inception of the subject's itinerary (*la umma* is an ingressive-phasal predicate denoting both 'walk off' and 'walk'; see Chapter 12).

- (9.20) i-khe-na Dhan Prasad la umm-hai?-ŋe. <G4.31a>  
 DIST-MDEM-TOP Dh. P. walk-TEL-INTR.RP  
 Therefore, Dhan Prasād must be on his way [by now].

As in the domain of the perfect there is no special past r-perfect. Transposition of the moment of reference into the past is implicit and entirely context-driven:

- (9.21) kuiro-cha khimliŋ khimliŋ pou-ŋe i-ne-e phabeleŋ-ma  
 fog-ADD IDEOPH(twilight) rise-INTR.RP DIST-LDEM-LOC red-COL.ART



kubin pok-kar-he. <KP18b>  
rainbow rise-TEL-PT

The fog was up '*khimlij khimlij*' and there the red Rainbow rose.

The essential property of the r-perfect is that the result of a prior event obtains at the moment of reference.

As a corollary of this feature, the moment of reference implied by the r-perfect is accessible to time adverbial specification. In the following example, *hamba* 'today' refers to a present state which is presented as resulting from a prior event of development *aid avant la lettre*: (The sequence *li-hai?*- [be-TELIC] translates 'become' and denotes a change of state.)

- (9.22) bastar-bu m-me?-ye-he-chi ki-nahuj hamba naga-chi  
clothes-REP 3nsA-cause-RELINQ-PT-nsU SEQ-ABL today naked-ns  
thupro n-li-hai?-je-bu-no. <IV100a>  
much 3nsS-be-TEL-INTR.RP-REP-CONF  
They caused them [to wear] clothes and so today the *Nāgās* are numerous  
(viz. because of the welfare that came with clothing).

This is in strong contrast with what we observed above for the perfect, but fully in line with resultative forms in European languages. However, unlike European types of resultatives, the Belhare r-perfect not only allows adverbial specification of the reference time but of the event time as well. Thus, in the terminological framework proposed by Nedjalkov & Jaxontov (1988), the Belhare r-perfect has some 'perfect properties'. Also notice that the verbs in the following examples are atelic, a feature generally considered incompatible with 'regular' resultatives:

- (9.23) a. rat bhari hap-je.  
night full weep-INTR.RP  
She has cried the whole night.
- b. u-samba Dharann-e wet tai-je cippa. <V166>  
3POSS-yesterday Dh-LOC rain rain-INTR.RP a.bit  
The day before it had rained a bit in Dharān (i.e., the soil is still wet).

According to consultants, example (9.23a) suggests that one can see traces of tears on a child's face as the result of a wept-through night. Similarly, (9.23b) refers to soil that is still wet from rain at the (transposed) moment of reference. Out of context, a sentence like (9.24) is ambiguous because *asen* 'yesterday' can refer either to the time of the event or the time of the result:

- (9.24) asen tai-ŋe.  
 yesterday come-INTR.RP  
 S/he came yesterday (and is now here)  
 or: S/he was here yesterday (having come before).

These observations suggest that the main difference between the perfect and the r-perfect lies in the accessibility of the two temporal layers that are characteristic of both categories. This is summarised in (9.25), where  $t_E$  stands for 'time of event' and  $t_R$  for 'time of reference'. The r-perfect makes both layers accessible for adverbial specification (9.25a), and this seems to hold true also for similar categories in Lithuanian and Mongolian (cf. Nedjalkov & Jaxontov 1988: 43f and Dugarova & Jaxontova 1988: 218f). The perfect constrains this accessibility to the layer of the past event (9.25b). A European-style resultative (e.g., English *The car is broken down* (\*yesterday)) does not allow adverbial specification of  $t_E$  (9.25c).

- (9.25) a. R-PERFECT:  $t_E$  —  $t_R$   
 b. PERFECT:  $t_E$  — ( $t_R$ )  
 c. RESULTATIVE: ( $t_E$ ) —  $t_R$

Since  $t_E$  is fully open to adverbial specification, even the event itself can be adverbially modified. This is again in strong contrast to European types of resultatives. The following utterance was said after tasting millet beer which was already quite mature, i.e., sour and alcoholic.

- (9.26) imbi chito tumm-hai?-ŋe! <G5.21b>  
 how fast mature-TEL-INTR.RP  
 How fast it got mature!  
 (Literally, \*How fast it is matured.)

The contrast between resultatives proper and the r-perfect is not limited to adverbial syntax. According to Maslov (1988) and Nedjalkov & Jaxontov (1988), a major characteristic of resultatives is that they are restricted to intransitive or possessive ('have') constructions. This constraint does not hold for the r-perfect. Like the perfect, the r-perfect comes in two variants, an intransitive form in -ŋ... and a transitive form in -s.... The transitive form is restricted to plurivalent verbs. Translation into European languages is extremely difficult because these languages do not allow combining

transitive clause semantics with the idea of a resultant state. In some cases, possessive resultatives help, but notice that the Belhare original has a plain transitive structure:

- (9.27) a. *cuptaŋ u-laŋ kaũ-se-no.* <VI9b>  
 right 3POSS-leg bend-TR.RP-CONF  
 [The horse] has its right [leg] bent.
- b. *pum-dēi-se.* <VI20b>  
 clench-TEL-TR.RP  
 [The man] has [his fist] clenched.
- c. *rumal taŋghekg-e kam-se.* <V#37>  
 scarf head-LOC wrap-TR.RP  
 He has a scarf wrapped around his head.
- d. *appi appi bhag gaɖarr-e n-sok-teĩ-se-ch-u*  
 self self part muddy-LOC 3A-stick.into-TEL-TR.RP-d-3U  
*un-na-na-bu masmase ca-he, bhote-ŋa.* <KP2a>  
 3-OBL-TOP-REP IDEOPH(quickly) eat-PT Tibetan-OBL  
 They each kept their own part stuck into the muddy [ground], but the Tibetan ate it '*masmase*'.

In other cases, a presentative construction helps translate a transitive r-perfect. The following examples are descriptions of pictures. In most cases, a less explicit paraphrase would use the copula *yunŋa* 'is' or the temporary aspect form (*atdhet*) of the state predicate *atma* 'to be visible':

- (9.28) a. *wabruk-g-e caɽni n-sui?-se.* <V#14a>  
 cucumber-LOC chutney 3nsA-smear-TR.RP  
 There is chutney smeared on the cucumber.
- b. *lotliŋ-chi tarr-e ŋ-kheũ-se-chi* <V#40>  
 shirt-ns wire-LOC 3A-hang.up-TR.RP-nsU  
 There are shirts hung up on the wire.

Occasionally, plurivalent verbs are inflected by the intransitive r-perfect endings in *-ŋe*. This creates a kind of passive (cf. (9.3b) above), and brings the r-perfect a bit more in line with European resultatives:

- (9.29) lu, raja-ro seŋŋ-hai?-ŋe. <G4.41a>  
 INTERJ king-ID tear.apart-TEL-INTR.RP  
 Oh! the [picture of] the king [on the bill] is torn apart!

In most cases, however, a plurivalent verb retains its full transitivity in the r-perfect, which makes a translation into European languages almost impossible:

- (9.30) a. ʌgari-ha lam lui-se. <VI19b>  
 front-N way get.on.way-TR.RP  
 [The horse] has started its way.
- b. baŋ-ŋa ŋ-waŋ-ŋatt-u-n-chi-n. <G5.26a>  
 bus-OBL NEG-have.enough.space-RP-3U-NEG-nsU-NEG  
 The bus is not big enough for them

In the following example, the translation is bound to miss the parallelism between the transitive and intransitive r-perfect forms which both refer to a resultant state, unless we translate *ho?yeiseŋ* by an awkward 'I have her taken':

- (9.31) yu! bindra jaŋgall-e siŋ u-taŋli-e ho?-yei-se-ŋ,  
 ACROSS moon jungle-LOC wood 3POSS-trunk-LOC guide-RELINQ-TR.RP-1sA  
 bomm-hai?-ŋe ŋ-khai-?-ni-ŋ ceg-yu bomm-hai?-ŋe. <KP62a>  
 bend.down-TEL-INTR.RP NEG-go-NPT-NEG-e say-NPT bend.down-TEL-INTR.RP  
 I have 'her taken' to a tree trunk over there in the Moon Jungle, she [is  
 sitting] bent over (because of shame) and says 'I don't go', she [is sitting]  
 bent over.

The difference from English resultative constructions must not distract from the fact that the Belhare r-perfect has 'resultative' properties even in fully transitive clauses. As in intransitive constructions, the temporal layer of the time of reference is entirely accessible to adverbial specifications like *hamba* 'today' (9.32a, b), *asen* 'yesterday, before, earlier' (9.32c, d) or *iti bela-samma* 'up to now' (9.32d).

- (9.32) a. hamba yul-leŋ caŋ Malaya ek patti cheu-leŋ hel-leŋ  
 today ACROSS-DIR TOP M. one stretch side-DIR where-DIR  
 Cin-na m-piu-se-chi ki-nahuŋ-go n-tonŋ-het. <IV130b>  
 China-TOP 3nsA-give-TR.RP-nsU SEQ-ABL-PTCL 3nsS-agree-TEMP  
 Nowadays, [the British] 'have one part of Malaya given' somewhere  
 over there to China and now they agree with each other.

- b. hambak-kolo nAkAli sAkAli i-na misin n-tai?-se  
 today-CONTR fake original DIST-DEM machine 3nsA-bring-TR.RP  
 kina juna jat khei?-t-u-m! <KP4b>  
 SEQ which caste touch-NPT-3U-1pA  
 Nowadays they 'have this [sewing] machine brought' for better or worse  
 and we touch [material sewn by] any caste!
- c. un-na asen-do har-ap cou-se. <KP9a>  
 3-OBL earlier-ID loose-INT AUX-TR.RP  
 He had given up [living here] long ago.
- d. asenba nau-se-na. <G3.39a>  
 earlier ask-TR.RP-1>2  
 I have asked money from you. (i.e., 'I still owe you money.')
- e. iti bela-samma jamma cok-ma hiu-se. <KP33b>  
 this time-UNTIL sum do-CIT be.able-TR.RP<sup>1</sup>  
 He has been able to collect [the data] up to this time.

Like its intransitive counterparts, transitive r-perfects also allow adverbial specification of the temporal layer of the event. This is the 'perfect' property characteristic of this category. A very common adverbial time specification is with *hale* 'before'. This adverb indicates that the current state of affairs denoted by the r-perfect is the result of an event that happened just before the moment of reference:

- (9.33) a. n-tas-e-bu u-khimm-et-na bhAnd-ai cama omak  
 3nsA-reach-PT-REP 3POSS-house-LOC-TOP for.sure-EMPH food side.dish  
 hale thikka-bu cou-se. <XII7>  
 before correct-REP do-TR.RP  
 They reached his house: for sure he had already correctly prepared the  
 food before.
- b. khimm-e pñi-sa-bu ŋ-khar-e-chi-bu. khimm-et-cha-bu  
 house-LOC run-SS/T-REP 3nsS-go-PT-nsU-REP house-LOC-ADD-REP  
 hale ta-hai?-se-bu yu-ro! <IV115b>  
 before reach-TEL-TR.RP-REP ACROSS-ID  
 They<sup>d</sup> ran home. [But Rainbow] had reached the house even before, [he  
 was] over there!

<sup>1</sup> The light verb *hima* 'be able' registers morphologically the arguments of the transitive main verb; see Bickel (in press-a).

- c. n-ta-a-na dinn-e i-na u-ma-a-bu hale si  
 3nsS-come-SUB-N day-LOC DIST-DEM 3POSS-mother-OBL-REP before die  
 mei?-se kuna-e phuturu-ma kapara phuk-teĩ-se  
 cause-TR.RP corner-LOC white-COL.ART clothes cover.oneself.with-TEL-TR.RP  
 un-bu mokha-e hoĩ-ŋe kina hapb-het u-chiat  
 3-REP patio-LOC appear-INTR.RP SEQ weep-TEMP 3POSS-spit  
 sus-sa hap-sa cokg-het. <XH9f>  
 smear-SS/T weep-SS/T do-TEMP

The day they came, her mother 'had herself prepared before' as if dead, she 'had herself covered' with white clothes in a corner. When [the daughter] was there on the patio, she was crying and smearing her spit [all over] and was crying.

#### 9.4 Perfect and r-perfect in competition

The preceding sections suggest that perfect and r-perfect have the same basic semantics, viz. to establish a special relationship between a past event and the moment of reference, but that the r-perfect has the additional property of making the moment of reference accessible to time adverbial specification. This property follows from the fact that the r-perfect not only refers to the event itself but also to some subsequent result. The definitions of the two categories are summed up in (9.34).

- (9.34) Both the r-perfect (*-ŋe* and *-se*) and the perfect (*-ŋa...-ha* and *-sa...-ha*) signal a relationship between a preceding event and the subsequent situation at the moment of reference. In addition to this, the r-perfect indicates that there are results of the prior event that are still perceptible at the moment of reference.

The r-perfect is more marked than the perfect and thus forms a Horn-scale with it. As shown in (9.11), the simple past provides the least marked or 'zero' member of the scale:

- (9.35) Perfect field: <R-PERFECT, PERFECT, PAST>

Application of the Sufficiency Principle to this scale predicts that a speaker will use an r-perfect if there is any detectable result of a prior event in a situation. This is why, as we have seen in (9.2), a freshly painted house, where the 'state of beauty' still prevails, is

normally best described by an r-perfect like *khannhai?ne* [beautiful-TEL-INTR.RP] 'it is beautiful'. To use a weaker form in such a situation systematically implicates — by virtue of the Minimisation Principle — that the result of having become beautiful no longer prevails at the moment of reference, i.e., that the house is no longer beautiful. Thus, the perfect *khannhai?naha* [beautiful-TEL-INTR.PERF-PERF] in (9.1) suggests that the speaker is aware that the object once turned into beauty and that there may still be some evidence for this, but that s/he is no longer willing to apply the predicate in the present. Using the yet weaker plain past from *khannhare* [beautiful-TEL-PT] would implicate that the former state of beauty is not really relevant for the current situation, for instance, because the house is absent (see section 9.2).

The Minimization implicature attached to the perfect is a very prominent feature of conversational reasoning in Belhare. For instance, in the following exchange, A's use of a perfect allows B to draw the conclusion that A had found his watch again. Had A used an r-perfect (*mareiseŋ*), by contrast, he would have implicated that the watch is still lost:

(9.36) A: asen ghari ma-reĩ-s-u-ŋŋ-ha.  
 before watch loose-TEL-TR.PERF-3U-1sA-PERF  
 Some time ago I had lost my watch.

B: ma-reĩ-s-u-k-kha? e.....e..... hene chitt-he-ga? <IX15>  
 loose-TEL-TR.PERF-3U-2-PERF INTERJ where find-PT-2  
 You had lost it? so.....where did you find it?

Whenever a speaker does not want to commit himself or herself to a resultant situation, the perfect is the only choice:

(9.37) i-na-ro riŋ mei?-s-u-ha? — i-na-ro! <G3.64b>  
 DIST-DEM-ID sound cause-TR.PERF-3U-PERF DIST-DEM-ID  
 Is this the [drum] he has just repaired? — Yes.

If, however, a result state is in the focus of an inquiry, the Sufficiency Principle demands the use of an r-perfect. Thus, a question like the following asks about the state of a cup of tea:

(9.38) lim-ŋe i? <G5.33a>  
 delicious-INTR.RP Q  
 Is it good?

In this context, the perfect (*limŋaha*) would be quite odd. The form would establish a connection between now and the testing of the tea but would at the same time suggest

that the quality of the tea is no longer the same. The only reasonable alternative to (9.38) is a plain past (9.39), which is indeed quite frequent if not the most common way to ask about food or tea served. However, the plain past does not focus on the state of the tea but rather on the personal experience that the addressee had when first testing the tea:

- (9.39)    *lims-e*    *i?*  
           delicious-PT Q  
           Did it taste good?

Thus, the past form in (9.39) has a ring of personal attitude whereas the r-perfect in (9.38) pretends more to inquire about an objective state of affairs — at least according to the impression I got from the conversations I listened to.

If a resultant state is obvious, the r-perfect is often the best suitable form. Any other form would strongly defocus from the current situation:

- (9.40)    a. *min-cek-pa*    *pī-sa*    *ap-khaiʔ-ŋe.* <G3.55b>  
               NEG-say-LOC run-SS/T    come.ACROSS-TEL-INTR.RP  
               He has come over here (i.e., is over here) running and without telling.
- b. *u-mik*    *bopt-u-na-etlo*    *tai-ŋe.* <G4.54a>  
               3POSS-eye cover-3U-ART-LOC-RESTR come-INTR.RP  
               Only the one who covers his eyes (i.e., who wears glasses) has come  
               (i.e., is here).
- c. *e*    *toʔwa-e*    *ŋ-khai-ŋat-ni.* <G5.6b>  
               INTERJ task.on.the.field-LOC NEG-go-RP-NEG  
               Oh! She has not gone to work on the field (i.e., she is still here).

Thus, in many cases, the difference between an r-perfect and a perfect is a matter of emphasis: the r-perfect focuses on the present situation as the result of the past, the perfect emphasizes the past as a source and reason of the present. In the following minimal pair, the r-perfect serves to qualify the subject's character as a life-time card player whereas the perfect places more emphasis on the fact that the subject has played cards again and again for such a long time:

- (9.41)    a. *picha-et-nahuj*    *tas*    *khon-ŋe.*  
               child-LOC-ABL card    play-INTR.RP  
               He has played cards since childhood.



- b. picha-et-nahurj tas khorj-rja-ha.  
 child-LOC-ABL card play-INTR.PERF-PERF  
 He has played cards since childhood.

The strong emphasis on the current situation that is attached to the r-perfect often brings with it a contextual connotation of surprise. Signaling that the speaker has just become aware of a current situation is a very typical discourse function of the r-perfect:

- (9.42) a. doku bhari-ulo-bu pucha-ulo-bu lik-khai?-nje. <IV115b>  
 basket full-CONTR-REP snake-CONTR-REP enter-TEL-INTR.RP  
 But the basket [was] full [with] a snake that had entered!!
- b. e! i-na Calne Sañli yu-ba  
 INTERJ DIST-DEM C. Third.born:FEM ACROSS-LOC  
 phenn-hai?-nje i? <X41>  
 go.ACROSS-TEL-INTR.RP Q  
 Oh! that Sañli from Calne has gone over there!?

In line with this function, the r-perfect is often translated into Nepali by the evidential perfect in *-e* or by the ‘recent discovery’ particle *rahecha* (see Michailovsky 1995). Consultants even sometimes suggest to equate the Belhare r-perfect with the Nepali evidential perfect. However, whereas in Nepali the evidentiality effect is relevant throughout all main clauses, this is not the case in Belhare. A Nepali non-third person form like *ga-e-chu* [go-PERF-1s] ‘I have gone’ has an evidential quality and suggests that the speaker has just become aware that he has been to a certain place before. The utterance is adequate, for example, when the speaker first thinks that he has never visited a certain place but, now, after having seen it or heard about it, he realizes that he must have been there before. By contrast, no such presuppositions are linked to the Belhare r-perfect. The form simply denotes a present situation thought of as the result of a past event. This is why utterances like the following are quite common and do not suggest any special, pragmatically marked, situation:

- (9.43) a. tha tou-se-ŋ. <X72>  
 know know-TR.RP-1sA  
 I got to know (and so I now know.)
- b. chitto taw-a-ai!, tai-ŋe-rja <G4.30a>  
 fast come-IMP-EMPH come-INTR.RP-e  
 Come quickly! (to open the door lock), I have come (and now I am back here).

- c. *khāi-ŋe-ga-no!* <G4.41b>  
 beautiful-INTR.RP-2-CONF  
 You became beautiful! (i.e., Now you look really beautiful!)
- d. *na ŋasa abo dekhauti liu-ŋe-i-ga.* <KP10b>  
 DEM fish now appearance be-INTR.RP-2p-2  
 You [gods] have got the appearance of fish.

And last but not least, the Belhare r-perfect is not used for narration, a function that is quite typical for the Nepali evidential perfect in *-e*

## Capitulum 10

### The inconsequential

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The last morpheme to be discussed is the inconsequential marker *-kone*. The term is borrowed from Haiman's (1988) study of the Papuan language Hua (also cf. MacDonald 1988, Bickel 1991, Bearth 1993) and refers to verb forms that mark an event as being 'in vain'. This means:

- (10.1) The inconsequential (*-kone*) denies whatever one might expect as a consequence of the situation.

Thus, the form has an intrinsically negative value, and this seems to motivate the fact that the inconsequential cannot be negated in Belhare (*\*n-chit-kone-ni* [NEGmeet-INCONS-NEG]).

Usually, the inconsequential has past time reference:

- (10.2) a. *yu-ba i-gira bas chit-kone-ŋ-cha bhari*  
ACROSS-LOC one-HUM bus meet-INCONS-1sA-ADD full  
*li-haiʔ-ŋa-ha. lig-a-ro ŋ-hi-at-ni-ŋ. <K24>*  
be-TEL-INTR.PERF-PERF enter-SUBJ-ID NEG-able-PT-NEG-3U-1sA  
I even came across a bus over there, but it was full and I could not get on.
- b. *pī-sa uŋ-gone-ŋa khat-ca-he. <IX2b>*  
run-SS/T come.DOWN-INCONS-e go-TEL-PT  
I ran downhill, but [the bus] already went off.
- c. *gari kon-gone-ŋ n-chitd-at-ni-ŋ. <IX19>*  
vehicle want-INCONS-1sA NEG-meet-PT-1sA  
I was looking for a vehicle but didn't find one.
- d. *ŋka-cha yaŋ his-si khat-ma mit-kone-ŋa taŋa*  
1-ADD DISTR look-SUP go-CIT think-INCONS-e but  
*n-tokg-at-ni-ŋ. <G3.70a>*  
NEG-find-PT-NEG-1sA  
I was thinking of going to watch as well but I didn't find [time].

The denied consequence is explicitly mentioned in these examples by a subsequent clause, sometimes even marked by the conjunction *tata* 'but' borrowed from Nepali (10.2d). However, the inconsequential can also constitute an independent utterance, most typically with the addition of *ke* 'what' or *keko* 'of what', an exclamatory question word borrowed from Nepali. This is illustrated by the following examples, which also show that the inconsequential does not necessarily have past time reference.

- (10.3) a. mu-bak-kha-ŋa n-niu-t-u-n-do ŋkerŋ-rin,  
 DOWN-LOC-N-OBL NEG-know-NPT-3U-NEG-ID 1pPOSS-sound  
 ke n-ni-gone! <IX30>  
 what 3nsA-know-INCONS  
 The people down there don't know our<sup>pi</sup> language; why should they know?!
- b. A: bhara-e piu-t-u-chi hola.  
 rent-LOC give-NPT-3U-nsU probably  
 Probably, he rents [the house].
- B: ke-ko pi-gone-chi! kam ka-cok-pa-chi  
 what-GEN give-INCONS-nsU work N.SUBJ-do-M-ns  
 yuŋ-t-u-chi. <G5.25a>  
 keep-NPT-3U-nsU  
 Why should he give it to them?! He keeps [his] workers there.
- c. A: n-chii?-t-u-n hola  
 NEG-meet-NPT-3U-NEG probably  
 Probably, she won't find [a job].
- B: ke-ko chit-kone! <G5.45a>  
 what-GEN meet-INCONS  
 and if she did... (i.e., it wouldn't alter her desperate situation.)

The rhetorical function of these constructions is to signal that the event marked by *-kone* is completely useless. This, in turn, implicates that it is unlikely to be the case.

# Part III

## Aspect and Aktionsart



# Chapter 11

## Aktionsarten effects and a theory of aspect representation

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In the preceding chapters, especially in Chapters 5 – 7, we came across several phenomena that require an analysis of Aktionsart (*alias* ‘inherent meaning’, ‘time schema’, ‘lexical aspect’, ‘situation aspect’) and its interaction with aspect. This does not come as a surprise since, as suggested in the introductory chapter, aspect is intimately linked to Aktionsart *per definitionem*. I restrict myself to those issues of the Aktionsart – aspect interface that need to be addressed in order to round off the morpheme analyses put forward in the preceding. That is, I will not discuss the whole range of effects that Aktionsarten have on Belhare grammar (for instance, on the morphology of verb derivation or the syntax of time adverbials), but only those effects that are immediately salient for grammatical aspect marking. The issues that I am going to deal with can be divided into two parts. First, we saw that a series of aspect phenomena make crucial reference to the notion of initial boundary in Aktionsart. This is the case with the inceptive marker (Chapter 6) as much as with the behaviour of lexemes like *nima* ‘to (get to) know’ in other aspect forms, viz. in the temporary (Chapter 5.2) or simple (Chapter 7.2). A second area of Aktionsart effects arises from final boundaries in Aktionsart. These are effects traditionally known under the heading of telicity. Such effects are crucial for an understanding of the temporary and imperfective aspect. Before embarking on these discussions, however, I shall sketch in the present chapter the theoretical framework within which I couch the analysis. I will keep the general outline to a minimum, further elaboration being included in the discussion of specific Aktionsarten effects in Belhare that is the topic of Chapters 12 and 13.

### 11.1 Towards a selection theory of aspect

The study of Belhare aspect corroborates the hypothesis that grammatical aspect is universally defined in terms of boundaries and phases (alternatively, ‘limits’ or ‘situations’), an idea that underlies most recent approaches to aspect in European languages (e.g., Johanson 1971, 1994, 1996, forthcoming; Breu 1984, 1985, 1994; Sasse 1991b;

Ebert 1995; Timberlake 1985; Maslov 1948, 1974, 1985). To see this, let's have a look at the definitions of Belhare aspect categories established in Part II. These definitions are summarised in Table 11.1. I include the spatially distributed temporary (SDT) aspect under the entry for the plain temporary since with regard to their aspectual value they have the same properties (see Chapter 8).

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-yakt ~ -ya ~ -yau 'imperfective'	signals that situation develops at the moment of reference.
-hett 'temporary' and -kon 'SDT'	signal that the situation develops in the present but is temporally restricted (in a way dependent on the Aktionsart).
-kett 'inceptive' [not with affirmative forms from other than oriented motion verbs]	signals that the situation has started to develop in the present.

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*Table 11.1: Aspect semantics*

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The simple form, the two perfects and the definitive provide the unmarked category for a basic opposition to the 'cursive' categories listed in Table 11.1. This opposition is responsible for their pragmatic behaviour as perfectives in discourse.

The defining features in the description of aspect semantics in Table 11.1 are 'having started' (inceptive), 'developing situation' (temporary, imperfective) and 'temporally restricted' (temporary, spatially distributed temporary). These impressionistic terms are built from the notion of boundary (*terminus*) and phase (situation, *cursus*) used in many recent aspectological treatises. 'Having started' corresponds to an initial boundary, 'temporally restricted' corresponds to the presence of one or two boundaries, and 'developing situation' corresponds to a phase. Following traditional aspectological wisdom (e.g., Johanson, 1971, 1994, forthcoming; Smith 1991), I assume that these notions of boundary and phase do not directly refer to our conceptualisations of situations but that they are mediated by lexical Aktionsart and similar time structures on higher levels (such as a verb complex or even a whole clause). This is the core of what I call 'selection theories' of aspect. The basic tenet of selection theories is that aspect markers 'select' (in a sense to be specified) phases and boundaries in Aktionsart structure. Immediate evidence for such theories comes from two well-known kinds of phenomena.

First, as noted already in Chapter 2, aspect morphemes are often restricted to a specific Aktionsart. A well-known example is the ban of perfective aspect in Slavic from verbs with a static Aktionsart like *prinadležat* 'to belong'. Another example is the restriction of the Belhare inceptive marker in affirmative sentences to verbs with a



specific ‘oriented motion’ Aktionsart (see Chapter 6, and Chapter 12.2 below). It is difficult to see how such lexical restrictions could be accounted for if aspect marking were not sensitive to lexical Aktionsart. A second piece of evidence in favour of selection theories is that semantic variation in aspect marking often follows from Aktionsart differences. One of the best known instances is the effect that a ‘telic’ (or in other terminologies, ‘gradually terminative’, ‘accomplishment’, ‘final-transformative’) Aktionsart has on aspect marking. Unlike an atelic predicate, a verb with telic Aktionsart does not entail that the event denoted by the verb occurs at the moment of reference. Rather, the situation is ‘pre-stadial’, as Sasse (1991b) has it: the subject is in a phase before the crucial end-boundary, the *telos*, but this boundary is not yet reached (see Garey 1957). This is why in (11.1a), the imperfective form of the telic predicate *ipma* ‘to get full’ does not entail that the container got full, whereas with atelic *khorjma* ‘to play’, the predicate holds true right from the beginning (11.1b).

- (11.1) a. *ib-yakt-he*            *tATA ηη-ipb-at-ni.*  
           get.full-IPFV-PT    but NEG-get.full-PT-NEG  
           It was filling up, but it did not get full.
- b. *khorj-yakt-he* (# *tATA η-khorj-at-ni.*)  
           play-IPFV-PT        but NEG-play-PT-NEG  
           He was playing (# but did not play).

Such differences in truth conditional effects can hardly be accounted for without taking Aktionsart as a mediator between aspect marking and the conceptual construal of the situation. Most current approaches to aspect agree on this point and assume some version of a selection theory. Theories differ as to terminology and as to the precise format in which aspect and Aktionsart are represented.

The version of selection theory that I adopt here largely derives from the work by Breu (1984, 1994) and Sasse (1991) but incorporates two essential additions: First, given the potential range of cross-linguistic variation in lexical structure, it is helpful to have Aktionsart structures generated by a small inventory of primitives rather than to postulate a predetermined set of Aktionsarten (as is done in Breu’s and Sasse’s work). Thus, I advocate a strictly compositional theory of Aktionsart rather than the reification of an *a priori* set with ‘totally static’, ‘inceptively static’, ‘activity’, ‘gradually terminative’ and ‘totally terminative’, or, with the Vendlerian classes ‘state’, ‘activity’, ‘achievement’ and ‘accomplishment’. It is possible that there are tight constraints on what may universally count as Aktionsart, but I take this as an empirical issue that must be separated from the design of the theoretical framework (at least at this stage of research). Moreover, decompositional semantics is generally advantageous since it

allows generalisations over recurrent configurations (e.g., the formulation of statements about all Aktionsarten with a phase or with an end-boundary).

Second, most versions of selection theories provide a fairly detailed account of time structure, but what is often neglected is the interface between time structure and other dimension of lexical semantics (but see recent work by Tenny 1992, Butt 1995). Here, I propose a multi-tiered approach to semantic structure similar to a proposal by Jackendoff (1987, 1990, 1991, 1996).<sup>1</sup> The basic idea is that semantic structure is not represented in a linear propositional format (as it is, for instance, in Wierzbicka's (1985, 1988, 1992) or Dowty's (1979) theories). Rather, semantic constituents are distributed over different tiers such as a thematic tier, which contains elements like GO, BE, AT, TO, etc., and an action tier, specifying actor-undergoer relationships. Aktionsart structure is specified by a tier of its own. This tier corresponds, I take it, to the temporal tier, which was postulated for independent reasons by Jackendoff (1987). The temporal tier includes the notions of phase and boundary, which are associated in specific ways with constituents of other tiers. Taking these two additions into account, the selection theory adopted here has the following design.

There are two sides to any selection theory: a theory of Aktionsart structure, specifying the range of possible Aktionsarten, and a theory of aspect semantics, explicating the notion of 'selection'. The basic ideas of the theory are summarised by the following principles, which will each be discussed in the remainder of this chapter.<sup>2</sup>

(11.2) *Aktionsarten theory:*

- a. Time structure is represented by a temporal tier consisting of regular alternations of phases ( $\varphi$ ) and boundaries ( $\tau$ ).
- b. Boundaries and phases are associated with specific constituents on other tiers in semantic structure.<sup>3</sup>

(11.3) *Aspect theory:*

- a. Aspect semantics is defined by operators selecting a phase and/or one or more boundaries.

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<sup>1</sup> Notice that by invoking Jackendoff's view of multi-tiered semantics I do not adopt his claim about the non-distinction of semantics and pragmatics nor his particular way of semantic decomposition.

<sup>2</sup> The following theory of Aktionsarten is certainly too unconstrained. A candidate for a further restriction is that lexical items may not include more than one phase. The exploration of such universal constraints is beyond the scope of the present study.

<sup>3</sup> We will see in Chapter 13 that in the telic Aktionsart, as opposed to inchoative structures, phases are not associated.

- b. Selection of a boundary entails that the associated constituent and, if any, all subsequent or preceding phases begin or cease to apply at the moment of reference  $t_R$ .
- c. Selection of a phase entails that the associated constituent applies at  $t_R$ .
- d. Selection of an unassociated phase implies that the other tiers (within associated boundaries) are relevant without applying at  $t_R$ .

The core claim of the theory is that aspect marking consists of 'selecting' phases and/or boundaries so as to make them accessible to truth-conditional evaluation at the moment of reference. 'Selection' is probably best explicated as a mapping from semantic constituents into a Discourse Representation Structure, where a constituent is subject to truth evaluation along the lines suggested by Smith (1991). This is similar to the notion of 'event realisation' in Pederson (1990) and Talmy (1990) or the relation of 'assertion scope' postulated in Klein (1994). By moment of reference ( $t_R$ ) I understand 'the window' on a world that is asserted, questioned, wished etc. It is identified in Belhare by the past vs. non-past morphology.

The theory of Aktionsarten includes only elements that are also characteristic of aspect semantics, to wit,  $\varphi$  and  $\tau$ . It is this feature that makes it possible to assume a simple 'selection' operation. Alternative ways of formalising Aktionsart, e.g., Dowty's (1979) system, are not easily compatible with aspect semantics since they incorporate non-temporal notions like CAUSE. As long as such notions are not re-defined in temporal terms,<sup>1</sup> they are largely irrelevant for the semantics of grammatical aspect categories like perfective and imperfective (cf. Van Valin 1993, Bickel 1995b). They belong to a different tier than temporal Aktionsart distinctions: causatives can be inchoative (*to cool*) or telic (*to drown*), stative (*to frighten*) or dynamic (*to walk [a dog]*).

Nor are semantic constituents like *do'* or AFF (for 'affect'), as postulated by Dowty (1979) and Jackendoff (1990) respectively, part of the Aktionsart that aspect markers operate on. These constituents may at best constrain the range of verbs that allows a particular aspect marking. They are not, however, the elements that aspect markers select. A case in point is the *am...V...sein* progressive in German dialects. In Swiss German, for instance, the progressive is incompatible with static verbs:

- (11.4) \*Das isch wüerkli am stööre gsii.  
 this is really at disturb:INF been  
 This was really disturbing.

<sup>1</sup> This option was suggested to me by David Wilkins (p.c.). I think the task would be enormous since CAUSE is not restricted to temporal sequence but can also relate simultaneous states, as Dowty (1979: 103) points out with examples like: *Mary's living nearby causes John to prefer this neighbourhood.*

This does not entail that the progressive can be defined as a selector of activities, i.e., of verbs with a *do'* or AFF constituent in their semantics. The progressive not only combines with activities (11.5a) but also with rather different Aktionsarten that do not include any notion of activity (11.5b).

- (11.5) a. Er isch am schaffe gsii.  
           he is     at    work:INF been  
           He was working.
- b. Si isch am versuufe.  
           she is     at    drown:INF  
           She is drowning.

The right generalisation seems to be that the progressive is defined just like an imperfective: the progressive selects any phase  $\varphi$  (as opposed to a transition  $\tau$ ) — unless it is associated with a static predicate. The nature of this constraint is parallel to the situation that we encountered with the Belhare inceptive: the inceptive selects any initial boundary, as long as it is associated with an 'oriented motion' predicate (see Chapter 6). In both cases aspect relies on the selection of an Aktionsart element ( $\varphi$  in one case, initial  $\tau$  in the other), but is distributionally constrained by the type of non-temporal semantic constituent to which the element is linked. This is in line with the Temporal Tier Theoreme that can be deduced from (11.2a) and (11.3a):

(11.6) *The Temporal Tier Theoreme*

There is a cross-linguistically significant set of morphemes, traditionally called aspect markers, which operate exclusively on temporal information (the 'temporal tier') in semantic structure.

This does not preclude that aspect markers are distributionally banned from applying to Aktionsart elements associated with a particular type of constituent, such as GO (for oriented motion) or AFF (the 'affect' component underlying activities).

Unlike Dowty's CAUSE notion, the primitive BECOME is pertinent to aspect semantics. The notion is indeed equivalent to the notion of boundary, and both can be traced back to von Wright's (1963) definition of change as a minimal succession T from  $\neg p$  to p. The notion of  $\tau$  as an element of a special time tier has the advantage over BECOME or T that it is associated with exactly the semantic constituent that actually undergoes the change: 'popping a balloon' changes the world only with respect to the balloon and not necessarily also with respect to other objects (e.g., the agent) and situations (cf. Tenny 1992: 19). This is represented in a chart like (11.5), where a boundary  $\tau$  is associated

with the undergoer argument of POP. The general design of these charts follows the format adopted in Conceptual Semantics (Jackendoff 1990). Square brackets enclose semantic constituents, which are modelled on first order predicate calculus (of the form '[P() ]'), enhanced by head-modifier relations (of the form '[ $\begin{smallmatrix} P() \\ R() \end{smallmatrix}$ ]'). (For expository reasons, I represent non-temporal information in an abbreviated and simplified way.)

$$(11.7) \quad \left[ \begin{array}{c} \text{[}_{Event} \text{ POP ( [ ] , [ ] ) ]} \\ \phantom{\text{[}_{Event} \text{ POP ( [ ] , [ ] ) ]}} \downarrow \\ \phantom{\text{[}_{Event} \text{ POP ( [ ] , [ ] ) ]}} \tau \end{array} \right]$$

The aspect theory in (11.3) specifies that aspect markers are defined as selectors of boundaries and/or phases. In line with Breu (1986, 1994) and Sasse (1994), imperfective and perfective can be universally defined as simple selectors:

- (11.7) *Aspect definitions:*
- a. The imperfective selects exactly one  $\phi$ .
  - b. The perfective selects one or two subsequent  $\tau$ .

In a lexical representation like (11.7), there is no phase available: the Aktionsart is punctual. This predicts that the predicate cannot occur in the imperfective aspect since this aspect requires a phase according to the definition in (11.7a). The following example is from Van Valin & LaPolla (forthcoming).

(11.8) \*She is popping the balloon.

The sentence is grammatical though if there are several balloons and if the sentence is understood as referring to a series of events.

(11.9) She is popping the balloons.

Following suggestions by Talmy (1988) and Jackendoff (1991), plurality can be semantically represented by a universal operator PL that has thing or event concepts as arguments. In (11.9), the nominal plural induces event plurality, i.e., iteration:

$$(11.10) \quad \left[ \begin{array}{c} \text{PL ( [}_{Event} \text{ ] )} \\ \phantom{\text{PL ( [}_{Event} \text{ ] )}} \downarrow \\ \phantom{\text{PL ( [}_{Event} \text{ ] )}} \phi \end{array} \right]$$

Since pluralisation of an event necessarily induces an extended time span, PL is associated with a phase (cf., among others, Vendler 1967, Chung & Timberlake 1985, or Timberlake 1982 for a similar observation). It is this phase that the imperfective can select in (11.9), thereby entailing multiple instances of popping. A corresponding example from Belhare is a punctual predicate like *ekma* 'to break (intr.)', which is compatible with a temporary or imperfective aspect only if the event can be understood as iterative, i.e., if there is a phase attached to a PL-operator. This presupposes that the subject is nonsingular:

- (11.11) a. \*jhyal ekg-het.  
           window break-TEMP  
           The window is breaking.
- b. jhyal-chi ηη-ekg-het.  
           window-ns 3nsS-break-TEMP  
           The windows are breaking.

A perfective aspect as in Russian selects one single or two subsequent boundaries  $\tau$  (cf. (11.7b) above). If there is only a single  $\tau$ , the Aktionsart is punctual or 'totally terminative' (Breu 1994) and the perfective form denotes the change of state (11.12a) or a single punctual (11.12b) event:

- (11.12) a. On           našel           ego.  
           3sM.NOM find:PFV:PT:sM 3sM.ACC  
           He found him.
- b. Ona           tolknula           ego.  
           3sF.NOM pinch:PFV:PT:sF 3sM.ACC  
           She pinched him.

If there are two boundaries, the perfective selects both and implies a 'delimitative' reading. In line with the Temporal Tier Theoreme, the difference between activities (11.13a) and states (11.13b) is irrelevant for aspectual selections and the resulting readings (cf. Bickel, in press-b, *pace* Breu 1994):

- (11.13) a. On           porabotal.  
           3sM.NOM work:PFV:PT:sM  
           He worked (for a while and then...)

- b. On pobył zdes'.  
 3sM:NOM be:PFV:PTsM here  
 He was here (for a moment and then ...)

If a verb does not include a boundary in its Aktionsart, there is nothing for a perfective aspect to select: the verb is an *imperfectivum tantum*, e.g., Russian *vesit'* 'to weigh'. Whereas  $\tau$ -only predicates can be put in an imperfective by pluralizing the event (as in (11.10) above), there does not seem to be a corresponding operation that would turn a  $\varphi$ -only Aktionsart into a structure with a  $\tau$  open for perfective selection. However, a large group of verbs include in their lexical semantics both a  $\varphi$  and a  $\tau$ . Two logical possibilities need to be distinguished: the 'ingressive-phasal' sequence [ $\tau \varphi$ ], and the 'telic' sequence [ $\varphi \tau$ ]. In both cases, a perfective form selects the  $\tau$  and implies a transformative reading, whereas an imperfective form selects the  $\varphi$  and implies a durative reading.

Ingressive-phasal verbs are very common in Turkic and Romance (but not in Slavic; see Bickel 1996a) languages, and, as we shall see in the next chapter, are also well attested in Belhare. An example of an ingressive-phasal predicate in Spanish is *conocer* 'to (get to) know', where the perfective form signals that the subject got to know or recognised somebody (11.14a), whereas the imperfective form refers to a state (11.14b):

- (11.14) a. Le conocí.  
 I got to know him.
- b. Le conocía.  
 I knew him.

With telic predicates, which are extremely common in most languages, the perfective signals the successful outcome of a transformation (11.15a). As already shown in (11.1a), the imperfective describes a pre-stadial situation, in which the event denoted by the predicate is relevant but not yet claimed as true (11.15b) (see Chapado & García 1991: 56):

- (11.15) a. Se murió.  
 He died.
- b. Se moría cuando llegó el médico.  
 He was dying when doctor came.

As examples (11.15a) and (11.16a) show, the boundary selected by a perfective aspect operator can be initial or final. The aspect only conveys an idea of 'boundary', without specifying either 'completion' or 'ingression'. This is important to note since perfectivity has often been misunderstood as focussing on the **final** boundary of a situation. With delimitative predicates as in (11.13), the perfective triggers the impression of a rounded-off whole, its interior structure being concealed as it were. With ingressive-phasals as in (11.14), by contrast, the perfective denotes the inception of a state which may still hold true at the moment of utterance, and with telic predicates as in (11.15), the selected boundary is final and the expression denotes completion.

## 11.2 Aktionsart composition and the Aspectual Uniformity Hypothesis

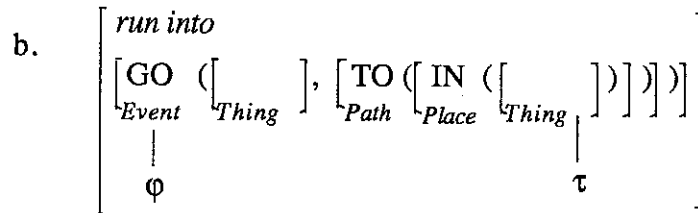
The Aktionsart structures considered so far concern the semantics of individual lexemes. However, as is well-known at least since Verkuyl (1972), aspectually relevant Aktionsarten are not specified exclusively on the predicate level, but are often subject to syntactic elaboration and modification (also cf. Verkuyl 1989). We have already encountered an instance of the phenomena in the famous Greek example from Chapter 2, where the addition of the adverbial *étē pentēkonta* 'fifty years' in (11.16 = 2.14b) introduces a final boundary so that the perfective now has a delimitative rather than an ingressive reading.

- (11.16)      *étē pentēkonta ebasfleusa.*  
                  year fifty                      reign:PFV:PT:3s ('Aorist')  
                  He reigned for fifty years.

In the present theory, the apparent change in Aktionsart is accounted for by unifying the semantic representation of syntactic constituents into a single propositional chart. A simple illustration of this is Jackendoff's (1983) way of describing the unification of *run* and *into* (11.17a) into the higher constituent *run into* (11.17b), here enhanced by temporal tier information.

- (11.17)      a.      
$$\left[ \begin{array}{c} \textit{run} \\ \left[ \begin{array}{c} \textit{GO} \\ \textit{Event} \end{array} \left( \left[ \begin{array}{c} \textit{Thing} \\ \phi \end{array} \right], \left[ \begin{array}{c} \textit{Path} \\ \tau \end{array} \right] \right) \end{array} \right] \end{array} \right] + \left[ \begin{array}{c} \textit{into} \\ \left[ \begin{array}{c} \textit{TO} \\ \textit{Path} \end{array} \left( \left[ \begin{array}{c} \textit{IN} \\ \textit{Place} \end{array} \left( \left[ \begin{array}{c} \textit{Thing} \\ \tau \end{array} \right] \right) \right) \end{array} \right] \end{array} \right] \end{array} \right]$$



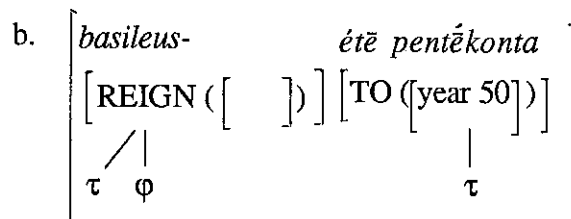
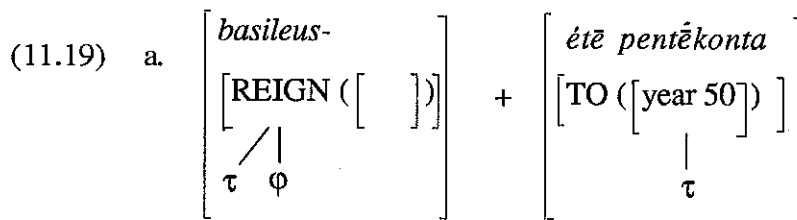


The result in (11.17b) predicts that the phrase *run into* is end-bound. Therefore, it can co-occur with an adverbial like *in five minutes* (11.18a). The verb *run* alone does not allow this (11.18b) (unless interpreted elliptically for 'she ran the race'). The examples are from Van Valin (1993):

(11.18) a. She ran into the park in five minutes.

b. \* She ran in five minutes.

The same analysis applies to the addition of an end-boundary in (11.16). The time span adverbial *étē pentēkonta* 'fifty years' is in the accusative of direction, which marks a goal point, i.e., in temporal terms, a boundary. Unified with the ingressive-phasal verb *ebasileusa* 'reigned' (11.19a), the verb phrase acquires a delimitative [ $\tau \varnothing \tau$ ] Aktionsart (11.19b).



Aktionsarten differences like *run* vs. *run into* or *basileus-* 'reign' vs. *basileus- étē pentēkonta* 'reign for fifty years' are traditionally treated by 'recategorisation' rules, whose status in grammar or lexicon is not fully clear (e.g., Johanson 1971, Sasse 1991, Breu 1994, Van Valin 1993). On the present account, the differences result from nothing other than simple meaning composition that is associated with syntactic constituent building.

In Chapter 2, we saw that final boundaries can also be introduced pragmatically. In the Spanish example (11.21 = 2.15a), the narrative chaining structure suggests that the perfective is to be interpreted delimitatively rather than ingressively, i.e., as an Aktionsart with a  $[\tau \phi \tau]$  rather than  $[\tau \phi]$  structure (Chapado & García 1991: 50):

- (11.21) Fernando fue agente de seguros, perteneció a la mafia, se casó, se divorció.  
 Fernando was an insurance agent, then he belonged to the mafia, got married and divorced [again].

Such phenomena suggest the following hypothesis that will be of repeated concern in the next chapters (cf. Lyons (1977: 706), Timberlake (1985) and Sasse (1991a) for similar claims).

- (11.22) *The Aspectual Uniformity Hypothesis:*

Aspect and Aktionsart representations have the same format, viz. configurations of  $\phi$  and/or  $\tau$ , and this format is the same on all levels of meaning composition (lexical semantics, morphological derivation, syntactic composition, and pragmatic enhancement).

Under the Aspectual Uniformity Hypothesis in (11.22), example (11.21) exhibit the same structural Aktionsart as (11.20b), i.e., a phase limited by boundaries both in the beginning and in the end. The initial boundary is predicted from the lexical semantics of *conocer*, which has an ingressive-static Aktionsart (see (11.14) above). The end-boundary, however, is introduced contextually. Both the semantically and the pragmatically given boundaries have the same representational format. The perfective aspect operates on this format, where it induces a delimitative state reading.

Phases too can be introduced pragmatically. This happens when a punctual predicate like *mama* 'to get lost, to loose' is 'pluralised' without an explicit reference to the multiplicity of events:

- (11.23) ma-yakt-he.  
 loose-IPFV-PT  
 It got lost again and again. (*not* 'it was getting lost' *nor* 'it was lost')

Without pragmatic 'pluralisation', the sentence would be anomalous since a  $\phi$ -selector is incompatible without a  $\phi$  in the Aktionsart (see (11.8) – (11.11) above). The hearer would, however, not normally expect the speaker to produce ill-formed strings (cf. Grice's Cooperative Principle). This allows the hearer to infer that the speaker had

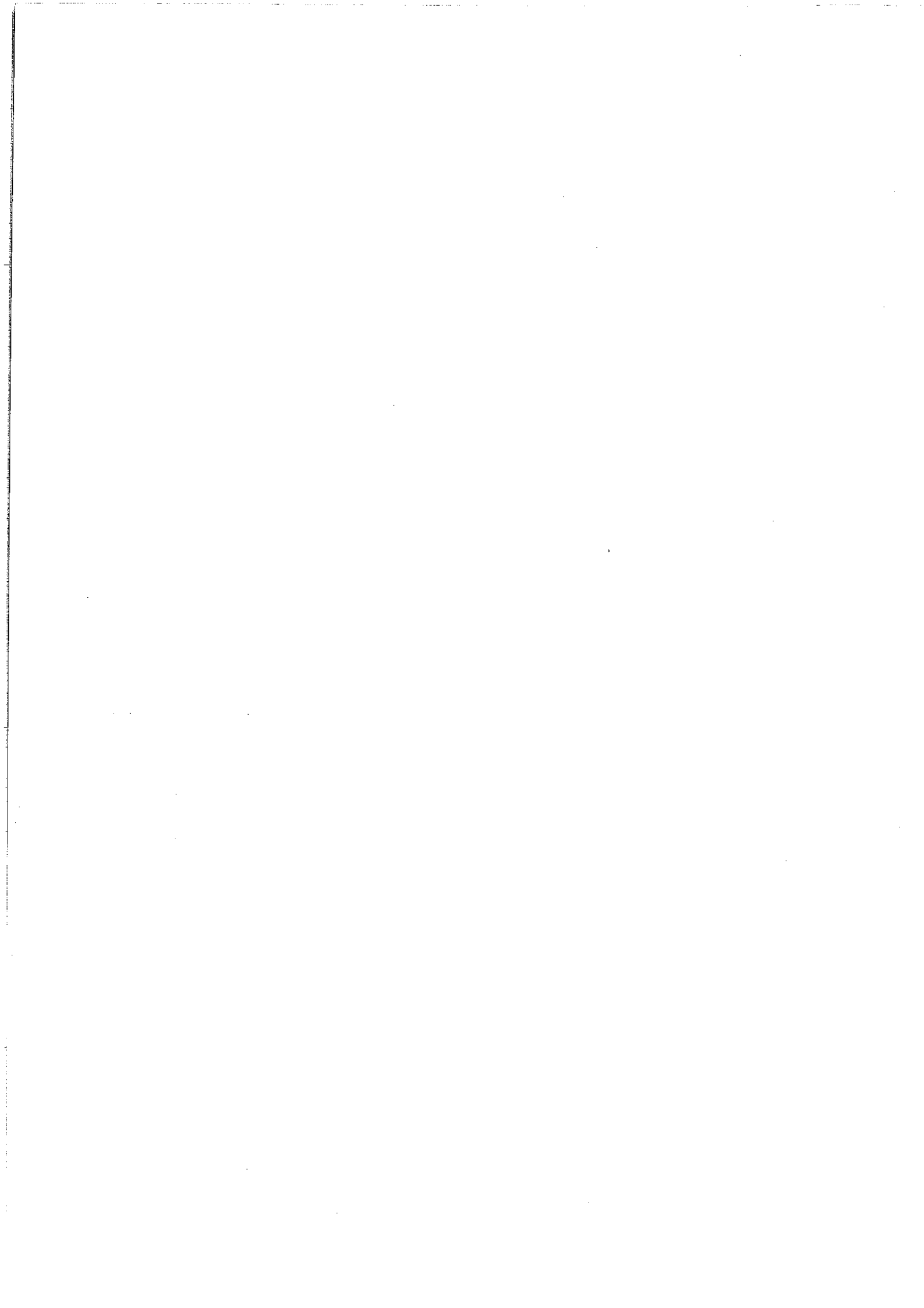
multiple instances in mind and intended the  $\varnothing$ -selector to highlight the durative nature of this multiplicity.

The Aspectual Uniformity Hypothesis claims not only that lexically encoded Aktionsarten behave the same way as pragmatically induced Aktionsarten but also that aspectual operators have the same representational format irrespective of their semantic or pragmatic status. This is motivated by a look back at Chapter 7. There we saw that the Belhare simple form has an aspectually neutral semantics but that it forms a Horn-scale with the cursive aspect markers.<sup>1</sup> Applying the Gricean Minimisation Principle on the Horn-scale <INCEPTIVE, TEMPORARY, IMPERFECTIVE,  $\emptyset$ > results in the generalised conversational implicature that the simple form has a non-cursive function whenever the situation would allow use of a cursive form. This implicature is responsible for the perfective function frequently fulfilled by the simple form. Its pragmatic nature notwithstanding, this function has the same representational format as a semantically encoded perfective aspect operator such as the Russian perfective: it is a selector of boundaries. This is the reason why, in contrast to a marked imperfective (11.24a = 11.1a) the simple form of a telic verb does not usually allow cancellation of the event (11.24b). It also explains why the simple form of an ingressive-phasal predicate often signals a change of state rather than a state (11.24c).

- (11.24) a. ib-yakt-he            tara ηη-ipb-at-ni.  
           get.full-IPFV-PT    but NEG-get.full-PT-NEG  
           It was filling up, but it did not get full.
- b. ipt-he            (<sup>#</sup>tara ηη-ipb-at-ni.)  
           get.full-PT        but NEG-get.full-PT-NEG  
           It got full (<sup>#</sup>but didn't).
- c. a-mik            yus-e  
           1POSS-eye sleepy-PT  
           I got tired.

In the following chapters, I will explore in detail how the marked  $\varnothing$ -selectors and the pragmatically implicated  $\tau$ -selector of Belhare interact with different Aktionsarten.

<sup>1</sup> The same probably holds for the English and Turkish simple forms as well as the ancient Greek Aorist (see examples (2.36) and (2.39) in Chapter 2). It can probably also be extended to the aorist forms (*passé simple*, *pretérito indefinido* etc.) in Western Romance languages, but this needs more detailed research into the pragmatics of aspect in these languages.



## Chapter 12

### Aspect and Aktionsart in Belhare

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In the theoretical framework sketched in the preceding chapter, the semantics of Belhare aspect categories can be defined in a simple formal way. Table 12.1 shows the definitions of Belhare aspect categories cast into a selection theory.

---

inceptive (- <i>kett</i> )	selects exactly one initial $\tau$ (restriction: in affirmative forms, $\tau$ must be associated with [GO])
temporary (- <i>hett</i> ) and SDT (- <i>kon</i> )	selects exactly one $\varphi$ and any adjacent $\tau$
imperfective (- <i>yakt</i> ~ - <i>ya</i> ~ - <i>yau</i> )	selects exactly one $\varphi$

---

*Table 12.1: Formal definition of the marked aspect categories in Belhare*

---

The definitions in Table 12.1 make explicit why the Belhare aspect categories make up the Horn-scale pair (12.1) that I postulated in order to account for various contextualisation effects in Part II:

- (12.1) a. Affirmative cursive field: <INCEPTIVE, TEMPORARY, IMPERFECTIVE,  $\emptyset$ >  
b. Negative cursive field: <INCEPTIVE/TEMPORARY, IMPERFECTIVE,  $\emptyset$ >

The categories differ as to the degree of semantic informativeness and specificity. In the affirmative, the inceptive is the most specific marker insofar as it is restricted to a single type of Aktionsart. In the negative, inceptive and temporary are not ordered but in free competition (see Chapter 6). The inceptive is specific as to the nature of the selected element (phase or boundary), and as to its configurational position. The informativeness of these two types of information, 'nature' and 'position', are balanced out by the semantic load of the temporary, which selects two types of temporal tier elements, viz. phases and boundaries. Further down the scale, the categories are less informative than both the inceptive and the temporary. The imperfective is not sensitive to the presence or absence of boundaries, but selects only a phase. The aspectually unmarked forms (' $\emptyset$ ') do not select any Aktionsart element in the semantic structure, but may do so under pragmatic pressure (as shown in the preceding chapter). The aspectually unmarked forms are the simple form, the definitive and the two perfects.

These differences in informativeness are made explicit in a formalised version of the Horn-scale pair where the aspect markers are represented by the Aktionsarten elements they select. Following standard practice in set theory, I use angled brackets for ordered and curly brackets for unordered sets:

- (12.2) a. Affirmative cursive field:  $\langle \langle \tau, \varphi \rangle, \{\tau, \varphi\}, \{\varphi\}, \{\ } \rangle$   
 b. Negative cursive field:  $\langle \{ \langle \tau, \varphi \rangle \}, \{\varphi\}, \{\ } \rangle$

In the following, I will discuss how these aspect definitions and their scalar order interact with Aktionsart configurations. In the present chapter I will give an overview of the Aktionsarten that need to be distinguished in Belhare and provide the evidence for these distinctions. In Chapter 13, I will focus on some logical and pragmatic elaborations of Aktionsarten that are important for understanding the behaviour of the inceptive marker and the contrast between the simple form and cursive aspect marking.

## 12.1 Overview of Belhare Aktionsarten

Belhare operates with five Aktionsarten, summarised by the following table together with the tests that identify them.

	ingr.-phasal	delimitative	punctual	telic	inchoative
1. V- <i>he</i> true when V- <i>hett</i> true?	yes	no	no	no	no
2. does V- <i>t/hett</i> entail V- <i>he kinahungetlo</i> ?	yes	no	yes	yes	yes
3. non-iterative $\varphi$ -aspect possible?	yes	yes	no	yes	yes
4. <i>ek chin</i> 'one moment' V only for result?	no	no	yes	yes	yes
5. is the event realisation defeasible?	no	no	no	yes	no
6. is <i>cippa</i> 'a bit' V- <i>he</i> acceptable?	yes	no	no	no	yes
7. possibility to increase event by <i>ajhai</i> 'still, the more, even more'?	yes	yes	no	no	yes

*Table 12.2: Synopsis of Aktionsarten tests in Belhare*

In order to determine the Aktionsart of any given verb, there is no need to run all the tests. Some tests uniquely identify a particular Aktionsart so that all other test answers are dependent on it. For instance, if a predicate answers positively to Test #1, the table

predicts that it will also answer positively to Tests #2, 3, 4, 6, and 7 but negatively to Test #4 and 5. These key test answers are printed in boldface.

Before discussing the individual tests, I present sample predicates that illustrate the five Aktionsarten. All verbs included here have been tested with consultants. Ingressive-phasal verbs include an initial boundary followed by a phase: [ $\tau$   $\phi$ ]. The phase can be static (e.g., *misen nima* 'to (get to) know') or dynamic (e.g. *lakma* 'to (come to the) boil'). Notice that the group is characterised in particular by a large group of motion verbs and by all experience verbs which appear in possessive of experience constructions. Possessive of experience constructions consist of a noun possessed by the experiencer argument and a verbal predicate, e.g., *a-rek kar-he* [1POSS-anger activated-PT] 'I became angry' (see Bickel 1996b).

(12.3) Ingressive-phasal

*ama, ar-* '(come) to be located, be related to'

*hapma, hab-* 'to (start to) cry, weep'

*hatma, har-* 'to light up, burn'

*hima, hir-* 'to be able to, have the power, energy or requirements to'

*khema, khes-* 'to have to, must'

*lakma, lakt-* 'to (come to the) boil'

*lapma, lapt-* 'to be almost V-ing, to (start to) be about to V'

*misen nima, misen nis-* 'to (get to) know, recognise (of people)'

*nima, nis-* 'to see, catch sight of, to (get to) know how to do something'

*phetma, phett-* 'to (come into) bloom'

*putma, putt-* 'to boil or spill over, be boiled or spilled over'

*tetma, tett-* 'to (be)come V-able (e.g., *uŋ te?yu* 'it's drinkable')

*tha tokma, tha tog-* 'to (get to) know, understand'

*wema, wes-* 'to spill over, be spilled over', etc.

motion verbs such as

*khatma, khar-* 'to go, set off'

*khattma, khatt-* 'to take (away), transport something'

*lama, las-* 'to (get to) return'

*la umma, la um-* 'to walk (off)', etc.

experience verbs such as

*katma, kar-* 'to (become) activated (e.g., *rek* 'anger', *lamma* 'appetite')

*luma, lus-* 'to be(come) perceptible (e.g., *waepma* 'thirst')

*rima, ris-* '(start to) spin (e.g., *niŋ* 'personality' as one feels dizzy)

*tukma, tug-* 'to (begin to) hurt', etc.

The following verbs include both an initial and a final boundary: [τ φ τ]. The phase in between can be either a state (e.g., *chukma* 'to sell well') or an activity (e.g., *khoyma* 'to play'). The difference is grammatically irrelevant and often hard to decide (e.g., *mitma* 'to think, remember'). Notice that verbs like *cama* 'to eat' and *thukma* 'to cook' behave in the tests as delimitatives irrespective of whether there is an explicit, specific object or not.

## (12.4) Delimitative

*ama, ar-* 'to cost'*atma, att-* 'to be visible'*cama, ca-* 'to eat (transitive and intransitive)'*cekma, ceg-* 'to say (intransitive)'*(kam) cokma, cog-* 'to do (work)'*chukma, chukt-* 'to sell well, to be marketable'*khima, khi-* 'to quarrel'*khoyma, khoys-* 'to play'*konma, kond-* 'to want, to be about to'*la uma, la us-* 'to dance'*luma, lur-* 'to tell, say to somebody'*metma, mett-* 'to cause'*mitma, mitt-* 'to think (intransitive), to remember (transitive)'*nama, nar-* 'to refrain, abstain from, to stop'*ratma, ratt-* 'to cry, shout, make noise'*ta lokma, ta lokt-* 'to begin'*tenma, ten-* 'to beat (up), hit'*thukma, thukt-* 'to cook (transitive and intransitive)', etc.

Punctual predicates contain only a single boundary and are exemplified by the following list:

## (12.5) Punctual

*ama, ar-* 'to fall down' (vs. *koma* 'to fall down', which is inchoative)*inma, in-* 'to buy'*chitma, chitt-* 'to meet, find'*ekma, eg-* 'to break (transitive and intransitive)'*letma, lett-* 'not to want to do sth. without (*min-*) V' (*minca nlei?niŋ* 'I don't do anything without eating first')*likma, lig-* 'to enter, get into something'



*mama, mas-* 'to lose (transitive), to get lost (intransitive)'  
*paɪma, paɪs-* 'to send somebody do something'  
*poɪma, poɪs-* 'to give birth, explode'  
*tama, tas-* 'to reach (transitive)'  
*tokma, tog-* 'can, to have the opportunity or chance to V', etc.

Telic and inchoative predicates both include a phase preceding a final boundary. The difference is that in telics the phase is not associated with the rest of the predicate's semantics, whereas in inchoatives it is associated. This representational difference will be discussed in Section 12.5.

(12.6) Telic

*anna, and-* 'to fill up, fill in' (only transitive)  
*ipma, ipt-* 'to get full, filled up (only intransitive)'  
*kamma, kams-* 'tie up, fasten'  
*kopma, kob-* 'to pick (up), snatch'  
*manma, mand-* 'to stop, come to an end, finish (transitive and intransitive)'  
*mun(dit)ma, mund(itt)-* 'to forget'  
*numa, nus-* 'to heal, get better'  
*pima, pir-* 'to give, allow'  
*phetma, phett-* 'to last, to pass (time)'  
*setma, ser-* (*sitma, sir-* in compound verbs) 'to kill, extinguish'  
*sima, si-* 'to die, fade, wither'  
*soɪma, soɪd-* 'to ripen, get cooked', etc.

(12.7) Inchoative

*honma, hond-* 'to appear, get out'  
*koma, kos-* 'to fall down' (vs. *ama* 'to fall down' which is punctual)  
*phokma, phog-* 'to raise'  
*pokma, pog-* 'to rise, get up', etc.

Some verbs are systematically ambiguous between a delimitative [ $\tau \phi \tau$ ] and a telic or inchoative [ $\phi \tau$ ] reading. I refer to them as 'inchoative-delimitative' or 'telic-delimitative' verbs. Where the distinction is not at issue, I subsume both under the label 'two-phase verbs'<sup>1</sup> since they incorporate two distinct phases in one lexical item. An English example parallel to the ambiguity of two-phase verbs is *to hide*, which can refer both to

<sup>1</sup> Cf. Ebert (1995) for this term. I depart from her usage, however, in distinguishing ingressive-phasal verbs with a unitary Aktionsart [ $\tau \phi$ ] from verbs which are ambiguous between two Aktionsarten. Only the latter are 'two-phase' verbs.

the state of being hidden (12.8a) and to the telic process of getting into that state (12.8b) (cf. Ebert 1995):

- (12.8) a. The kids were hiding in the garden for some time.  
 b. The kids were just hiding in the garden when she came back.

Inchoative-delimitative verbs (12.9a) denote for the most part what is described in European languages by adjectives. They form a very large group. Telic-delimitative predicates (12.9b) are less common. Some examples are given in the following lists:

- (12.9) a. Inchoative-delimitative  
*eŋma, eŋs-* 'to be(come) light (in weight)'  
*khanma, khand-* 'to be(come) beautiful'  
*kuma, kus-* 'to (get to) feel warm (of clothes, the soil, but not of food)'  
*lima, lis-* 'to be(come)'  
*limma, lims-* 'to be(come) tasty, delicious'  
*omma, oms-* 'to be(come) pale, white', etc.  
*leŋma, leŋs-* 'to turn (transitive or intransitive)'  
 all verbs of extension<sup>1</sup> such as  
*e paŋma, e paŋs-* 'to be(come) broad'  
*cik paŋma, cik paŋs-* 'to be(come) narrow'  
*e phenma, e phend-* 'to be(come) long'  
*e uma, e ur-* 'to be(come) big (in three dimensions)', etc.
- b. Telic-delimitative  
*lapma, lab-* 'to catch, fetch, hold'  
*watma, war-* 'to put on, wear'  
*toŋma, toŋs-* 'to (come to) agree, fit', etc.  
 all verbs of posture such as  
*imma, ims-* 'to sleep, fall asleep, lie (down)'  
*yurŋma, yurŋ-* 'to sit (down), settle, live', etc.

There is hardly any evidence in Belhare for predicates with only one single phase and no boundary notion. The only candidate might be the defective copula *yurŋ-*, which distinguishes only a general nonpast form *yurŋa* 'is' from a past form *yurŋase* 'was'.

<sup>1</sup> The semantic structure of these verbs is built from a morpheme indicating the amount of extension (*e* 'maximally extended', *cik* 'minimally extended', *bara* (neutral)) and a verb stem defining the number of dimensions involved (one, two or three).

Most verbs translating what is encoded as a state in European languages seem to include at least one boundary.

In the following sections, I will discuss the tests that define the groups surveyed above and the effect the Aktionsarten have on aspect marking. The focus of Section 12.2 is on tests assessing boundaries (Tests #1–2 in Table 12.2) and their aspectological relevance. Section 12.3 discusses the difference between ingressive-phasal Aktionsart and the group of two-phase verbs illustrated by (12.9). Section 12.5 is devoted to distinctions among change of state predicates (Tests #3–4). Finally, in Section 12.5, I provide evidence for distinguishing telics and inchoatives (Tests #5–7). Arguments for including boundaries in the representation of what mostly translates activities are put forward in Section 12.3 through 12.5.

## 12.2 Boundaries

The crucial property of ingressive-phasal predicates is that they include an initial boundary but not a final one: [ $\tau \ \emptyset$ ]. As a result of this, selection of this boundary in a past tense registers the inception of a situation that may still hold true at the moment of utterance. This is why ingressive-phasal verbs respond positively to Test #1 in Table 12.1:

(12.10) *Aktionsarten Test #1:*

*V-he* is true at the same time as *V-hett* is true.

A native version of this test is the following, illustrated by the ingressive-phasal predicate *lakma* ‘to (come to the) boil’:

(12.11) *lakg-hett-u-na      bela-et-to      “lakt-he”-cha toŋ-yu.*  
 boil-TEMP-3U-ART    time-LOC-ID    boil-PT-ADD    agree-NPT

At the time when it is boiling also “it came to the boil” is correct.

The general pattern is that in any situation where, for instance, (12.12a) can be truthfully asserted, (12.12b) also holds true.

(12.12) a. *cuj lus-e.*  
 cold perceptible-PT  
 It got cold.

- b. cuŋ lu-het.  
cold perceptible-TEMP  
It is cold.

This is different with delimitative predicates ( $[\tau \ \phi \ \tau]$ ) which respond negatively to Test #1 in (12.10). The presence of a final boundary in predicates like *chukma* 'be marketable' or *ama* 'to cost' does not allow an interpretation of the simple past as a 'pretaerito-praesens':

- (12.13) a. chukt-he.  
marketable-PT  
It sold well.
- b. dʌs rupie ar-he.  
ten rupee cost-PT  
It cost ten rupees.

Similarly, whereas (12.14a) can refer to an inception and is thus compatible with the assertion *hapbhet* [weep-TEMP] 's/he is crying now', (12.14b) refers to an event in the past about which no present continuation is claimed:

- (12.14) a. hab-he.  
weep-PT  
S/he began to cry.
- b. khonʃs-e.  
play-PT  
S/he played.

Notice that the simple past of a delimitative verb does not exclude that the situation still holds at the present, as pointed out by Comrie (1985) for past tenses in general. What is crucial about such forms is rather that they cannot be used as explicit claims about the present. The simple past of ingressive-phasal predicates, by contrast, is quite common for assertions about a present situation, such as when somebody exclaims that it is really cold (12.15a). Such an utterance places more emphasis on the personal experience than a temporary aspect (12.15b) or simple form (12.15c). The temporal truth conditions include the time of utterance in all cases:

- (12.15) a. *hetterikaha, saro cuŋ lus-e!*  
 [exclamation] very cold perceptible-PT  
 Damn! it has become really cold!
- b. *cuŋ lu-het.*  
 cold perceptible-TEMP  
 It is cold (these days).
- c. *i-na-ttaŋ-cha cuŋ lu-yu. <G4.36a>*  
 DIST-DEM-UP-ADD cold perceptible-NPT  
 It is cold up there, too.

Notice that in (12.15c), the simple non-past form is used in an aspectually neutral sense, whereas the simple past form in (12.15a) is used as perfective selector of the initial boundary of *luma* to be(come) perceptible'. This versatility of simple forms, which was discussed in Chapter 7, is responsible for the fact that a form like *cuŋ luse* from (12.15a) can also be understood as referring to a past state. Since the difference is pragmatic, this is entirely context-dependent:

- (12.16) *cuŋ lus-e.*  
 cold perceptible-PT  
 It got cold *or*: It was cold

Also with delimitative verbs, the simple form is ambiguous, but in a different way from (12.16). The aspectually neutral use simply records a past event, whereas the perfective use suggests a narrative sequence. In no way does an ingressive interpretation arise:

- (12.17) *tas khoŋs-e.*  
 card play-PT  
 S/he played (once, sometime) *or*: S/he played and then...

There is yet another test, #2 in Table 12.2, that assesses the difference between ingressive-phasal and delimitative structures. Like the '*praeterito-praesens* test' considered before, it concerns the relationship between past and present. If an ingressive-phasal predicate is claimed true as a state or activity in the present, this logically presupposes that this state or activity began before, in the past. No such presupposition is attached to delimitative predicates:

- (12.18) *Aktionsarten Test #2:*  
 V-*t* or V-*hett* entails V-*he kinahuŋŋ-etlo* [SEQ-ABL-RESTR] 'only after V-PT'

This is exemplified by the following. A generic assertion of the ingressive-phasal verb *nima* 'to (get to) know' in the simple or temporary non-past entails that the subject must first have got into the state of knowing. This is evidently not the case for a delimitative verb like *khonjma* 'to play'

- (12.19) a. tas khonj-ma niu-t-u. → nis-e kina-hunj-etlo.  
 card play-CIT know-NPT-3U know-PT SEQ-ABL-RESTR  
 He knows how to play cards → Only after he got to know (learned) it.
- b. khonj-hett. \* → khonjs-e kina-hunj-etlo.  
 play-TEMP play-PT SEQ-ABL-RESTR  
 She is playing. \* → Only after having played.

A paraphrase of Test #2 relies on the Nepali loanword *paila* 'first, before'. Just as *niutu* in (12.19a) entails *nise kinahunjetlo* it also entails *paila nise*:

- (12.20) tas khonj-ma niu-t-u. → paila nis-e.  
 card play-CIT know-NPT-3U before know-PT  
 He knows how to play cards. → Before he got to know it.

In this case, too, the inference goes through because *nima* 'to (get to) know' has a [τ φ] Aktionsart so that a perfectly used simple past (*nise*) can denote a change of state.

Other examples for an ingressive use of the simple past with [τ φ]-verbs are the following. Example (12.21a) is from a mythological account and refers to the current location of a deity. (12.21b) refers to a person standing on the road at the moment of utterance:

- (12.21) a. abo Tin Killa Mura ne-e ar-he. <X18>  
 now Three Edge Grandmother LDEM-LOC located-PT  
 Now, the Grandmother of the Three Directions came to be here.
- b. yeb-he.  
 stand-PT  
 He came to stand (i.e., stopped walking and is now standing.)  
 (cf. Turkish *durdu*.)

Both verbs can also refer to a state, i.e., their Aktionsart is [τ φ] rather than just transformative ([τ]):

- (12.22) a. Andruŋ hen-e a-yu?  
 A. where-LOC located-NPT  
 Where is Andruŋ located?
- b. i-ne-e yep-bhet.  
 DIST-LDEM-LOC stand-NPT  
 He is standing there.

The ingressive use of simple past forms is very frequent in questions and statements about experiences. As pointed out in Chapter 9, by focussing on the moment of inception rather than the resulting general state, these forms address the subject's experience more directly than an r-perfect or a non-past:

- (12.23) a. n-sak lus-e hola.  
 2POSS-hunger perceptible-PT probably  
 You are probably hungry (cf. Turkish *acıktın*).
- b. ŋ-keŋ n-ya-at-ni i? <G4.33a>  
 2POSS-tooth NEG-tingle-PT-NEG Q  
 Isn't your tooth hurting? (after having eaten that sour grapefruit)

Verbs of knowledge too frequently occur as *praeterito-praesentia* like (12.23). In this use, the focus is on the acquisition of the knowledge. In the following example, A specifies in her reply to B that she did not catch sight of the *Dāphe* company's bus.

- (12.24) A: e, Sagun hale-ro kat-khar-e.  
 INTERJ S. earlier.today-ID come.up-TEL-PT  
 Oh, the Sagun [bus] came up earlier.
- B: ʌni Dāphe?  
 and.then D.  
 And what about the Dāphe [bus]?
- A: Dāphe koni, tha n-tokg-at-ni-ŋ, ŋka. <G5.46a>  
 D. IGNOR know NEG-know-PT-NEG-1sA Is  
 I don't know about the Dāphe [bus].

A non-past form (*tha ntou?niŋ*) in this example would refer to a general state of knowledge, which would only poorly suit the situation.

The examples looked at so far mostly include a state as their phasal component. An exception was *hapma* 'to cry, weep' in (12.14a). A large group of ingressive-phasals

with a dynamic phase component are motion verbs. These verbs are frequently used with present time reference in the past tense. Not only is *khareṇa* [go-PT-e] 'I went' or *la umheṇa* [walk-PT-e] 'I walked' the standard formula used when taking leave, but third person forms too are regularly applied to presently ongoing processes. This makes the phenomenon far more general than the highly specific uses of past tense forms like Swiss German *i bi (den) ggange* 'I am off' (lit., 'I went (then)'), Russian *pošli* 'let's go' (lit., we went<sup>pfv</sup>) and related phenomena in other languages (cf., among others, Comrie 1985: 18, Bearth 1991, Sasse 1991b: 20). (12.25a) was uttered when the people have not gone yet; rather they are busy preparing their leave. Not surprisingly, on a similar occasion, the statement that somebody got herself ready to go was later reinforced by an inceptive form (12.25b).

- (12.25) a. *abo ṅ-khar-e*. <G4.45b>  
 now 3nsS-go-PT  
 They are off.
- b. *khar-e ... khat-ke*. <G5.48a>  
 go-PT go-INC  
 She's off ... she is going.

The inceptive selects the initial boundary and emphasises that the motion has just begun but is not yet completed nor about to be completed. If perfectly used, the simple past has a similar function, but focusses more on the initial transition, i.e., on the inception of the event, and is less specific about the subsequent motion itself. This gives the simple past in the following example (12.26a) a reading that marks the departure a bit more definitively than the inceptive suggests in (12.26b). The utterance in (12.26b) was used to signal that the speaker is still available to his in-law (referred to as *appa* 'father'), signalling that he may just call him back if he wishes.

- (12.26) a. *ṅka-na khar-e-ṅa*.  
 1s-TOP go-PT-e  
 As for me, I'm off.
- b. *khat-ket-na, a-ppa* <G4.44b>  
 go-INC-e 1POSS-father  
 I am going, father.

The use of past forms of motion verbs for present time events can be tested in a fairly direct way. There is an explicit form for 'to see somebody (going) off' relying on the 'dimittive' Aktionsart derivation suffix *-ten+d-* (~ *-ren+d-* after Cyclic Voicing; see



Chapter 3). A form like *ni-renn-hett-u-ŋ* [see-DIMITTIVE-TEMP-3U-1sA] entails that the undergoer is in motion at the same time that the main predication (*nima* 'see') holds true. The past expression *khare* can be asserted of the same situation as *nirennhettuŋ*, i.e. when the motion is in progress. Also with other motion verbs such as *la umma* 'to walk (off)' or *pema* 'to fly (off)', the simple form in perfective function is commonly used in a purely ingressive sense. Both examples in (12.26) could be asserted when people are moving or a bird is flying. This can be checked by the same test as above, i.e., by asking whether the event holds true *ni-renn-hett-u-m-na bela-e* [see-DIMITTIVE-TEMP-3U-1pA-ART time-LOC] 'at the time we see something moving'.

- (12.27) a. *la ŋŋ-um-he.*  
 walk 3nsS-walk-PT  
 They walked off.
- b. *nua pes-e.*  
 bird fly-PT  
 The bird flew off.

A discourse example illustrating the ingressive value of *la umma* 'to walk (off)' is the following.

- (12.27) *pacis gate na-lamma la um-he-ŋa, khim-lamma. <ST11>*  
 twenty-five date DEM-MED walk-PT-e house-MED  
 I walked off from here on the 25th, off from home.

The difference between ingressive-phasal and delimitative verbs is not only relevant for the differences in the readings they allow in the simple past, but also for the interpretation of temporary aspect marking. The temporary aspect selects not only a phase but also any adjacent boundary and this is where the notion of 'temporariness' comes from. If there is only an initial boundary, it is selected and the expression denotes a situation that has just begun and now obtains. This is illustrated here by the following examples which repeat (5.17a–b) in Chapter 5.

- (12.28) a. *(namniŋŋ-et-nahuŋ) misen ni-hett-u.*  
 last.year-LOC-ABL know-TEMP-3U  
 He has known him (since last year).
- b. *i-net-nahuŋ-go tori pahēlo phetd-het iti bela. <V154>*  
 DIST-LDEM:LOC-ABL-PTCL mustard yellow bloom-TEMP this time  
 And then the mustard came into yellow bloom and is in bloom now.

As shown in Chapter 5, the temporary makes the initial boundary accessible for time adverbial specification (*namniŋgetnahuŋ* ‘since last year’ in (12.28a)) or integration into a narrative sequence (with *inetnahurgo* ‘and then’ in (12.28b)).

With temporary forms of ingressive-phasal predicates there is no suggestion about an impending termination of the situation. This is different with delimitative verbs. Since these verbs also include a final boundary ([τ φ τ]), the temporary selects it. This explains the observation made in Chapter 5 that such forms, in contrast to the imperfective, imply that the situation is only valid for a restricted period of time:

- (12.29) a. *chukg-het*.  
 marketable-TEMP  
 It is selling well (these days).
- b. *dʌs rupie a-het*  
 ten rupee cost-TEMP  
 It costs ten rupees (now, but will change again).

The effect of the temporary is again different with telic [φ τ] Aktionsarten. Here, the temporary selects the phase together with the final boundary and thus highlights the impending termination of the event. An illustration of this are example (5.25) in Chapter 5, e.g., (5.25a), which was used to get somebody quickly take a picture before the event is over:

- (12.30) *yu! cua ann-hett-u, dutd-e* <G5.26a>  
 ACROSS water fill.in-TEMP-3U milk-LOC  
 Hey, look over there! Now he is filling in the water, into the milk!

Another observation made in Chapter 5 is that the temporary aspect is incompatible with future time adverbials:

- (12.31) a. *\*waremba tas khoŋŋ-hett-i*  
 tomorrow card play-TEMP-1p  
 We will be playing cards tomorrow.
- b. *\*nemma chukg-het*.  
 next.year marketable-TEMP  
 It will sell well next year.

There is one systematic exception to this constraint. If a verb has an ingressive-phasal Aktionsart and if an event is scheduled in a general plan of the future, it is compatible

with future time adverbials. This is reminiscent of the 'futate' use of the progressive in English:

- (12.32) a. waremba la umm-het.  
tomorrow walk-TEMP  
S/he is leaving tomorrow.
- b. waremba la-het.  
tomorrow return-TEMP  
S/he is coming back tomorrow.

This can be easily explained if we assume that *la umma* 'to walk (off)' and *lama* 'to return' have a  $[\tau \phi]$  Aktionsart pattern. Whereas with delimitative  $[\tau \phi \tau]$  patterns, the temporary aspect delimits the applicability of the expression to a restricted period in the present, it leaves open the end of the situation with  $[\tau \phi]$  structures. The time adverbial in (12.32) does not specify the moment of inception but rather the phase of motion. Notice, however, that this possibility is not general but subject to a pragmatic constraint that requires embedding of the predication in a generally known and obvious plan. If a predication cannot be integrated in such a schedule, a future time adverbial is excluded even if the verb is ingressive-phasal:

- (12.33) # waremba m-phok tukg-het.  
tomorrow 2POSS-stomach hurt-TEMP  
Your stomach will ache tomorrow.

### 12.3 Ingressive-phasal Aktionsart vs. two-phase verbs

Like ingressive-phasals, the group of ambiguous two-phase verbs too responds positively to Tests #1 and 2 in Table 12.2. First, a simple past form of a two-phase verb can substitute *salve veritate* for a nonpast or temporary aspect form (Test #1):

- (12.34) a. akkasa khand-he, na-na.  
very beautiful-PT DEM-TOP  
It is very beautiful, this one! (literally, 'it became very beautiful')
- b. net-cha khāi-yu.  
LDEM:LOC-ADD beautiful-NPT  
It's also beautiful here.

Two-phase verbs also support the inference predicted by Test #2:

- (12.35) *khāi-yu.* → *khand-he kina-hunṅ-etlo.*  
 beautiful-NPT beautiful-PT SEQ-ABL-RESTR  
 It is beautiful. → Only after having becoming beautiful.

In agreement with this, simple forms of two-phase verbs show the same kind of *praeterito-praesens* use that is characteristic of verbs with a [τ φ] Aktionsart. Highly typical for this are the following uses of *lima* 'to be(come)':

- (12.36) a. *cia tato lis-e.*  
 tea hot be-PT  
 The tea is hot.
- b. *u-niūa u-phokg-ep-phu bhutbhuti-bu lis-e. <KP28b>*  
 3POSS-mind 3POSS-belly-LOC-REP IDEOPH(strange)-REP be-PT  
 He felt strange in (both) mind and stomach.

Sometimes, the verb is better translated by a past tense of *become*. Notice in (12.37b) the parallelism to *pherap lima* 'to change' (from Nep. *phernu* 'to change'). (12.37c) was uttered in response to a video presentation in which the speaker mistook the small portable TV as a box in which the small protagonists would physically run around, constantly changing their appearance.

- (12.37) a. *lota khore maʔi mukg-e ar-he,*  
 water.pitcher small.bowl person hand-LOC fall-PT  
*ṅka jutho phohor lis-e-ṅa. <IX43>*  
 1s impure dirt be-PT-e  
 [Suppose] the *lohota* and the cups would fall into a foreigner's hand, I would become impure and full of dirt [if I used them nevertheless].
- b. *he-na bela maṅ n-lis-e ki he-na bela maʔi n-lis-e? [...]*  
 which-ART time god 3nsS-be-PT SEQ which-ART time human 3nsS-be-PT  
*emu-gari pher-ap n-li-gar-he? <KP26b>*  
 how-ABL change-INT 3nsS-AUX-UP.SEQ-PT<sup>1</sup>  
 When did they become gods and when did they become humans? [...]  
 How did they change?

<sup>1</sup> The modifier *-gar*, from *-katt-*, signals upward trajectories toward the speaker. It is used here metaphorically for time.

- c. ma-har-e i-net-nahur pheri maʔi li-ab-he. <IV21b>  
 get.lost-TEL-PT DIST-LDEM:LOC-ABL again human be-come.ACROSS-PT  
 [The goat] disappeared and then it became a human again and came from  
 the side.

Like ingressive-phasal predicates, two-state verbs also support a systematic ambiguity in the reading of the simple form as referring to a change of state or to a state:

- (12.38) makkhorok-ma lis-e.  
 black-COL.ART be-PT  
 It turned black (e.g., in the fire) *or*: It was black.

- (12.39) a. lett-u-na din-do bara u-yu. <FS21>  
 plant-SUBJ-ART day-ID EXT three.dim-NPT  
 It will become big the same day as they plant it.

- b. barobar ʔʔ-ʔi-chi. <G4.48a>  
 equally 3nsS-three.dim:NPT-d  
 They have the same size.

However, this ambiguity has a different reason than in the case of [ $\tau \phi$ ] structures. In [ $\tau \phi$ ] structures, the ambiguity is restricted to non-cursive, aspectually neutral morphology. Cursive aspect marking restricts the interpretation to a phase (state or activity) reading because the aspect necessarily selects this phase:

- (12.40) a. misen ni-hett-u.  
 know know-TEMP-3U  
 S/he knows him/her.  
 Impossible: 'He is getting to know him more and more.'
- b. hapb-het.  
 weep-TEMP  
 S/he is crying.  
 Impossible: 'S/he is beginning to cry.'

By contrast to this, two-phase verbs allow two different phases to be selected by a cursive aspect marker, viz. the inchoative process of getting into a state and the subsequent state itself:

- (12.41) makkhrok-ma li-yakt-he / li-het.  
 black-COL.ART be-IPFV-PT be-TEMP  
 It was/is (getting) black.

The following examples further illustrate the processual reading which can be obtained from two-phase verbs but which is excluded from ingressive-phasal verbs. In (12.42a), speaker B rejects A's proposal to take out the freshly distilled *raksi* from the distillator. The expression *pani* 'water' (a Nepali loanword, cf. Nep. *pāni*), refers to a unit of water that is used for cooling when distilling alcohol. The nominaliser in (12.42b) functions as a focus marker.

- (12.42) a. A: sar-he-ga i?  
 take.out-PT-2 Q  
 Did you take out [the liquor]?

B: loppa hola! ... bharkhar ek pani li-het. <G5.33a>  
 now probably just.now one water be-TEMP  
 [You fool would do that] probably now!...Just now it is becoming  
 the first water [unit] (i.e., the first cooling phase is in progress.)

- b. la, na-na pheri i-khe-?wa ca-het kina-ulo  
 well DEM-TOP again DIST-MDEM-LIKE eat-TEMP SEQ-CONTR  
 pheri bolleu li-het-kha. <FS32>  
 again fat become-TEMP-N  
 Well, he is eating like that and this is how he is getting fatter!

Likewise, while the temporary form *khannhet* in other contexts means 'it is beautiful' just as the imperfective in (12.43a), it refers in (12.43b) to the process of attaining that state. The speaker here refers to a new hearth that he is busy building at the moment of utterance.

- (12.43) a. bhote yum khāi-yakt-he. <G5.42b>  
 Tibetan salt good-IPFV-PT

The Tibetan salt was better (then the Indian salt we get nowadays).

- b. khann-het uŋ?  
 beautiful-TEMP RH  
 [The new hearth] is getting nice, isn't it?

The reading of (12.43b) can be demonstrated by looking at whether or not *V-hett* supports the inference to a later stage of increased 'V-hood'. This is the case with *khannhet*, but not with single-phase verbs like *tukma* 'to (begin to) hurt, be difficult':

- (12.44) a. *khann-het.*    *i-net-nahuj*                    *paila bhanda khaī-yu.*  
                          beautiful-TEMP    DIST-LDEM:LOC-ABL    before COMP    beautiful-NPT  
                          It is getting more beautiful. Therefore, it will be more beautiful than  
                          before.
- b. *tukg-het.*                    # *i-net-nahuj*                    *paila bhanda tug-yu.*  
                          difficult-TEMP    DIST-LDEM:LOC-ABL    before COMP    difficult-NPT  
                          It is difficult. # Therefore, it will be more difficult than before.

The reason for this is that two-phase verbs are ambiguous between two Aktionsarten, viz.  $[\varphi \tau]$  and  $[\tau \varphi \tau]$ . Ingressive-phasal verbs with a  $[\tau \varphi]$  Aktionsart are not ambiguous. If their phase element is selected, i.e., if they are suffixed by a cursive aspect marker, they refer to a state or activity. If their boundary is selected, they refer to a change of state or the inception of an activity. The ambiguous case observed in the preceding section results from the semantics of the simple form, which selects boundaries only optionally. The ambiguity does not come from the Aktionsart as is the case with two-phase verbs

The question arises whether two-phase verbs constitute two distinct lexemes or whether they are but two pragmatic spell-outs of a single semantic pattern. One could assume that two-phase verbs are lexically underspecified, i.e., that they do not have any Aktionsart and that there is a redundancy rule that fills in inchoative, telic and delimitative structures in these cases as defaults. However, the problem with such an account is that the rule would not distinguish between inchoative and telic patterns, a distinction I will show to be necessary in Section 12.5. Moreover, the rule would be *ad hoc* since there is no particular reason — or at least I am not aware of any reason — for why only inchoative, telic and delimitative patterns are involved. Why not punctual or ingressive-phasal Aktionsarten? It seems that the ambiguity of two-phase verbs is tied to the individual lexical items. In this case, however, they are better analysed as being lexically ambiguous, i.e., involving (related) lexemes. This analysis is not without problems either, because the pattern is so widespread in the language, and there is some preliminary evidence that it is also characteristic of other Asian languages, not only other Nepalese languages such as Limbu and Nepali (Ebert 1995) but maybe also Thai (M. Jenny, p.c.). Such a high degree of systematicity would rather point to a monolexemic basis. The issue calls for further research and I leave the question open whether Belhare two-phase verbs are monolexemic or not.

Two-phase verbs are very numerous in Belhare since most concepts that are presented as states in European languages fall into this group rather than into the ingressive-phasal or delimitative groups. Further examples are the following. In all cases, the temporary could in other contexts be interpreted as referring to a state. (12.45a) refers to the process of getting sleepy. (12.45b) was addressed to the author who was more and more approaching the local tan.

- (12.45) a. a-mik        yu-het.  
           1POSS-(eye) sleepy-TEMP  
           I am getting sleepy.
- b. abo han-cha makg-het-ka.  
           now 2-ADD    black-TEMP-2  
           Now you are also getting black[-skinned].

The inchoative and static readings sometimes have different valence restrictions since processes like becoming light cannot be predicted from the same range of elements as the state of being light:

- (12.46) a. siŋ    eŋŋ-het.  
           wood light-TEMP  
           The wood is light. *or*: The wood is getting light (while drying).
- b. lurghek eŋŋ-het.  
           stone    light-TEMP  
           The stone is light. *Impossible*: The stone is getting light.

In some cases the two readings of two-phase verbs can be disambiguated by the difference between iterated and reduplicated quantifiers. Iterated *cippa* 'a little' refers to a temporally distributed<sup>1</sup> amount ('a bit now, a bit then'), whereas the reduplication in *cicippa* emphasises the smallness of the amount:

- (12.47) a. cippa    cippa    omm-het.  
           a.little a.little white-TEMP  
           It is getting more and more white.

<sup>1</sup>This is in fact the *Gesamtbedeutung* of morphological iteration in Belhare, cf. *siŋtaŋ siŋtaŋ* 'on all trees, everywhere, *khim khim* 'from house to house', etc.



- b. *cicippa omm-het.*  
 RED:a.little white-TEMP  
 It is a bit white.

An imperfective form of this verb is ambiguous without quantifiers. The following example referred to a particularly white-skinned person. In another situation it might have been used to describe how somebody grew pale:

- (12.48) *u-na om-yakt-he. <G5.31a>*  
 3POSS-elder.sister white-IPFV-PT  
 His sister was white.

For many two-phase verbs, one or the other reading is favoured for pragmatic reasons. It just seem more common to talk, for instance, about the state of having a certain size rather than about the process of attaining that state.

- (12.49) a. *ŋka cig u-yakt-a-ŋ-naa... <G5.43a>*  
 1s MIN three.dim-IPFV-SUBJ-e-TOP  
 When I was small (i.e., a child)...
- b. *bharkhar-ha ititi ŋŋ-u-het. <K28>*  
 just.now-N this.much 3nsS-three.dim-TEMP  
 [The trees] that [have] just [been planted] are this big.  
 (Literally, 'The ones from just now are this big.')

Consultants confirm, however, that *e u-het* [MAX three.dim-TEMP] could also describe growth, just as it is natural to say about a river at the beginning of the rainy season something like (12.50):

- (12.50) *loppa-et-nahuŋ e paŋŋ-het.*  
 now-LOC-ABL MAX two.dim-TEMP  
 From now on, it's getting broader.

All examples of two-phase verbs that we looked at above involve a state rather than an activity in their delimitative [ $\tau$   $\phi$   $\tau$ ] component. This is indeed the more prominent case, but two-phase verbs with a dynamic phase are also attested. An instance is *lapma* 'to catch, hold':

- (12.51) a. phak lab-yakt-he.  
 pig catch-IPFV-PT  
 She was catching (i.e., running after) the pig.
- b. na piccha-a lab-yakt-u-lo m-phig-he <FS35>  
 DEM child-OBL hold-IPFV-3U-COM 3nsA-pick-PT  
 While this child was holding down [the branch], they picked [the fruits].

The meaning of (12.51a) is telic ([ $\phi$   $\tau$ ]) and refers to somebody running after a pig, trying to catch it. In (12.51b), *lapma* is used in its [ $\tau$   $\phi$   $\tau$ ] sense and describes what the child was doing when the other people picked fruit.

## 12.4 Transformations

With respect to Test #2 in Table 12.2, also punctual (12.52a), telic (12.52b) and inchoative (12.52c) verbs behave the same way as ingressive-phasal verbs. All these Aktionsarten involve a notion of transformation (or ‘change of state’) and this is what Test #2 taps into:

- (12.52) a. ma-yu. → mas-e ki-nahurŋ-etlo.  
 get.lost-NPT get.lost-PT SEQ-ABL-RESTR  
 Something is lost only after having been lost.
- b. ek chin ib-yu. → paila ipt-he.  
 one moment get.full-PT before get.full-PT  
 It is full for a moment. → Before it got full.
- c. pāc minet pog-he. → paila pog-he.  
 five minute rise-PT before rise-PT  
 He was up for five minutes. → Before he got up.

However, in all these cases, the resultant state that appears in the examples reflects a logical entailment from a change of state to a state. The state is not encoded by the verb and is thus not part of the Aktionsart as it would be if the predicates had an ingressive phasal structure.<sup>1</sup> For punctual predicates like *mama* ‘to lose, get lost’ (12.52a), this is shown by Test #3 in Table 12.2, to which the verb responds negatively.

<sup>1</sup> This distinction between logical entailment and semantic representation has many consequences not only for the theory of aspect but also for semantic theory in general. See Bickel (1996a) for an exploration of this issue.

(12.53) *Aktionsarten Test #3:*

Marking of a  $\phi$ -selecting aspect allows a non-iterative reading.

If *mama* included a post-transformative phase, this phase would be selectable by a cursive aspect marker. However, there is no such phase and cursive aspect marking is possible only if the event is thought of as iterated (pluralised), which brings with it a selectable phase on the pragmatic level (see Chapter 11):

(12.54) ma-yakt-he.  
get.lost-IPFV-PT

It got lost again and again. *Impossible*: It was lost

The same can be observed for other punctual verbs. Their Aktionsart consists of a single  $\tau$  so that a  $\phi$ -selecting aspect coerces an iterative understanding:

(12.55) a. lig-yakt-he.  
enter-IPFV-PT

She was going in again and again. *Impossible*: She is entering

b. a-yakt-he.  
fall-IPFV-PT

[The curtain] kept falling down. (because nobody fixed it properly.)

c. chitd-hett-u  
meet-TEMP-3U

She is meeting him again and again. *Not*: She is meeting him.

Telic (12.52b) and inchoative (12.52c) verbs respond positively to Test #3 (12.53). However, the phase that can be selected by a cursive aspect marker is not the post-transformative state present  $\phi$  in the configuration [ $\tau$   $\phi$ ] of ingressive-phasal verbs. Rather, the selected phase corresponds to a process leading up to a final transformation: the phase is part of the configuration [ $\phi$   $\tau$ ]:

(12.56) a. ib-yakt-he.  
get.full-IPFV-PT

It was getting full. *Impossible*: It was full.

b. pog-yakt-he.  
rise-IPFV-PT

He was getting up. *Impossible*: He was up.

The post-transformative state suggested in (12.52b) and (12.52c) above cannot be referred to by a cursive aspect marker. This state can only be inferred. This is corroborated by the following. Consider Aktionsarten Test #4:

(12.57) *Aktionsarten Test #4:*

The adverbial *ek chin* 'for one moment' can only refer to the result of an event but not to the duration of the event itself.

The time adverbial *ek chin* 'one moment'<sup>1</sup> has the same semantic time structure as the Greek expression *étē pentēkonta* 'fifty years' discussed in Chapter 11: it simply counts moments up to the indicated number, here 'one':

$$(12.58) \left[ \begin{array}{c} ek\ chin \\ [TO ([1\ moment])] \\ \quad \quad \quad \downarrow \\ \quad \quad \quad \tau \end{array} \right]$$

In order for a boundary  $\tau$  as in (12.58) to delimit the time of an event, two conditions must be fulfilled. First, there must be phase  $\varphi$  that can be closed by the adverbial. This follows from a fundamental property of the temporal tier postulated in (11.2a) in Chapter 11: only regular alternations of phases  $\varphi$  and boundaries  $\tau$  are allowed, a sequence  $*[\tau \varphi]$  is impossible. Second, there must be at least an initial boundary, from which time can be 'counted'. This double condition on time structure is satisfied only by ingressive-phasal (12.59a) and delimitative (12.59b) Aktionsarten, which have the structure  $[\tau \varphi]$  and  $[\tau \varphi \tau]$ , respectively. Accordingly, verbs with these Aktionsarten allow *ek chin* to measure the duration of the event (also cf. Section 1 in Chapter 13):

- (12.59) a. *ek chin hab-he.*  
           one moment weep-PT  
           S/he cried for a moment.
- b. *ek chin khons-e.*  
           one moment play-PT  
           S/he played for a moment.

In all other Aktionsarten, either the phase is missing or the initial boundary. Therefore, *ek chin* cannot measure the time of the event. Since any change of state logically implies a resultant state, however, *ek chin* can delimit this post-transformative situation. Any

<sup>1</sup> The expression is borrowed from Nepali but totally integrated into Belhare.

other reading is excluded with the [ $\varphi$   $\tau$ ] configuration of telic (12.60a) and inchoative (12.60b) verbs as well as with the [ $\tau$ ] structure of punctual (12.60c) verbs:

- (12.60) a. ek chin ipt-he.  
 one moment get.full-PT  
 It was full for a moment. *Impossible*: It filled up in a moment.
- b. ek chin pog-he.  
 one moment rise-PT  
 S/he got up for a moment. *Impossible*: S/he got up in a moment
- c. ek chin tas-e.  
 one moment reach-PT  
 S/he was there for a moment. *Impossible*: S/he arrived in a moment.

The resultant state can be made explicit by using the r-perfect, which in this case has more or less the same meaning as the simple past but adds a connotation of recent discovery (see Chapter 9). Also here, *ek chin* can only delimit the result:

- (12.61) a. ek chin ip-ŋe.  
 one moment get.full-INTR.RP  
 It was (obviously) full for a moment.
- b. ek chin n-tai?-se  
 one moment 3nsA-reach-TR.RP  
 They were here for a moment.

(12.61a) could be said in view of, say, the freshly wet rim of a water hole. Similarly, (12.61b) could be a reaction to empty tea glasses suggesting that there were guests here for a moment.

As shown in Chapter 9, the r-perfect is not a resultative in the European sense but allows time adverbial specification of the result as much as of the time of event. Therefore, *ek chin* behaves with an r-perfect just as with a simple past: it can specify the duration of the event if the verb is ingressive-phasal or delimitative, i.e., if it includes at least an initial boundary and a subsequent phase:

- (12.62) a. ek chin hap-ŋe.  
 one moment weep-INTR.RP  
 S/he cried for a moment (and you can still tell this by his/her face).

- b. ek chin tas η-khoŋ-ŋe.  
 one moment card 3nsS-play-INTR.RP  
 They played for a moment (and you can still tell this from, say, the cards lying around).

Again, the contrast to the simple past forms in (12.59) is that the r-perfects implicate 'recent discovery' in the way discussed in Chapter 9.

The difference between delimitative and inchoative/telic structures has an important ramification for the meaning of the temporary aspect. It explains an effect observed in Chapter 5. Consider the following examples, which repeat (5.26) and (5.25b):

- (12.63) a. mul-lamma kar-he kina ca-hett-u. <VIII34a>  
 DOWN-ABL come.up-PT SEQ eat-TEMP-3U  
 [The cow] came up and now it is eating.
- b. e! Boku u-ma! ŋka munn-hett-u-ŋ-no, waremba  
 INTERJ B. 3POSS-mother 1s forget-TEMP-3U-1sA-CONF tomorrow  
 yu-ro khat-ma p̄arne, Patle-e. <G5.24a>  
 ACROSS-ID go-CIT EXIG P.-LOC  
 Hey, Boku uma! I am certainly about to forget it: tomorrow [we] should go over there, to Patle.

In delimitative Aktionsarten, the temporary selects the phase and both adjacent boundaries. This implies a notion of a current, but temporary situation (12.63a). With telic or inchoative Aktionsarten the temporary suggests that a situation is soon to reach its final point (12.63b). Nothing is said about the inception of the event, because there is no initial boundary that the temporary could possibly select.

### 12.5 Telicity vs. inchoativity

In most approaches to Aktionsart, only two types of 'final-transformative' (Johanson 1971) events are distinguished: durative 'accomplishments' and punctual 'achievements' (Vendler 1967) or 'gradually terminatives' and 'totally terminatives' (Breu 1994). In the seminal paper where Garey (1957) introduced the notion of telicity, he was careful to specify that telic predicates "have to wait for a goal for their realisation" (p. 106). A specific object complement to a verb like *play* can add a final boundary and this makes the whole expression e.g., *to play a Mozart concerto*, telic-like, but, as Garey (p. 108) insisted, the verb itself retains its atelic property: if interrupted during the course of

playing the concerto, one can say that the artist 'has played some'. This is impossible with true telic verbs: if somebody was dying but rescued, the person did not 'die a bit'. This distinction holds in Belhare not only with transitive constructions, but results from a fundamental difference in Aktionsarten, viz. the difference between telic and inchoative verbs and between telic and inchoative two-phase verbs.

Given the two-tiered format of semantic representation proposed in Chapter 11, the difference between inchoative (12.64a) and telic (12.64b) verbs can be captured by the presence vs. absence of an association between the temporal phase and the rest of the semantic constituents defining the verb's meaning. In the following, 'PRED' stands for any non-temporal information the verb might include (e.g., GO, PLAY, etc.).

- (12.64) a. 
$$\begin{bmatrix} \text{PRED} & ([ \ ] ) \\ | & | \\ \phi & \tau \end{bmatrix}$$
- b. 
$$\begin{bmatrix} \text{PRED} & ([ \ ] ) \\ & | \\ \phi & \tau \end{bmatrix}$$

In (12.64a) selection of the phase by a cursive aspect marker implies that the associated semantic constituent is claimed true (or more precisely, is mapped into a Discourse Representation Structure; cf. Chapter 11). If the selected phase is not associated (12.64b), this implies that PRED is relevant, since it is part of the verb's semantics, but that it does not hold true at the time of reference. The predicate is claimed true only if the final boundary is selected. This representational difference has at least three demonstrable effects, which correspond to Tests #5, 6 and 7 in Table 12.2.

First, in line with Garey's observations, telic, but not inchoative verbs have a defeasible event realisation if their phase is aspectually selected. This is captured by Aktionsarten Test #5 which receives a positive response only from telic Aktionsarten:

(12.65) *Aktionsarten Test #5:*

The realisation of an event encoded by a verb in a cursive aspect form is defeasible.

This is evidenced by the following judgements about possible clause sequences with a telic (12.66a), an inchoative (12.66b), an ingressive-phasal (12.66c) and a delimitative (12.66d) verb.

- (12.66) a. *ib-yakt-he tARA ηη-ipb-at-ni.*  
 get.full-IPFV-PT but NEG-get.full-PT-NEG  
 It was about to get full, but didn't.

- b. \* hoĩ-yakt-he tARA ŋŋ-hoĩ-at-ni.  
 appear-IPFV-PT but NEG-appear-PT-NEG  
 [The pig] was appearing [through the corral], but didn't come out totally.
- c. \* misen ni-yakt-he tARA misen n-ni-att-u-n.  
 know know-IPFV-PT but know NEG-know-PT-3U-NEG  
 S/he knew him/her, but didn't.
- d. \* khoŋ-yakt-he tARA ŋ-khoŋŋ-at-ni.  
 play-IPFV-PT but NEG-play-PT-NEG  
 S/he was playing, but didn't.

One Aktionsart of two-phase verbs is delimitative, the other telic or inchoative. If it is telic, the event is defeasible under imperfective aspect marking:

- (12.67) a. waʔ-yakt-he, tARA wat-ma mi-ŋ-pi-att-u-n,  
 put.on-IPFV-PT but put.on-CIT 3nsA-NEG-allow-PT-3U-NEG  
 i-net-nahuŋ-go ŋ-watd-att-u-n.  
 DIST-DEM:LOC-ABL-PTCL NEG-wear-PT-3U-NEG  
 He was [just] putting it on, but was not allowed to wear it. Therefore, he didn't.
- b. yuŋ-yakt-he tARA n-yuŋŋ-at-ni.  
 sit(down)-IPFV-PT but NEG-sit(down)-PT-NEG  
 He was sitting down, but didn't sit. (because he was not allowed to.)

In their delimitative reading, a cursive aspect marked on these verbs refers to a state:

- (12.68) a. luga ŋ-waʔ-yakt-he hola, uŋ? <V146b>  
 clothes 3nsA-wear-IPFV-PT probably RH  
 [The man-eaters] probably wore clothes, didn't they?
- b. yu-ro yuŋŋ-het.  
 ACROSS-ID sit(down)-TEMP  
 She is sitting over there.

If the non-delimitative phase of a two-phase verb is inchoative, the event realisation is not defeasible. See (12.43a) and (12.46) for delimitative readings of the following verbs.



- (12.69) a. \*khāi-yakt-he tARA ŋ-khann-at-ni.  
 beautiful-IPFV-PT but NEG-beautiful-PT-NEG  
 It was getting beautiful but didn't.
- b. \*eŋ-yakt-he tARA ŋŋ-eŋŋ-at-ni.  
 light-IPFV-PT but NEG-light-PT-NEG  
 It was getting lighter, but didn't.

Like Test #4, also the final two tests in Table 12.2 assess the nature of a phase element in the Aktionsart. One test, #6, evaluates whether the phase can be measured in stretches of time or not:

- (12.70) *Aktionsarten Test #6:*  
*V-he* is compatible with *cippa* 'a bit'.

This is possible with inchoative Aktionsarten since they denote gradual processes. For this it is irrelevant whether the inchoative phase is the only one (12.71a) or whether the verb is a two-phase verb (12.71b). Test #6 also receives a positive response from ingressive-phasal Aktionsarten because they involve an open-ended situation that can be measured by *cippa* (12.71c).

- (12.71) a. *cippa* hond-he.  
 a.bit appear-PT  
 [The nail] came out a bit (but not fully).
- b. *cippa e paŋs-e.*  
 a.bit MAX two.dim-PT  
 [The river] got a bit broader.
- c. *cippa la um-he.*  
 a.bit walk-PT  
 She walked a bit.

The phase included in other Aktionsarten is incompatible with *cippa* 'a bit':

- (12.72) a. \**cippa nus-e.*  
 a.bit heal-PT  
 He got a bit better.

- b. \* *cippa* η-khoŋs-e.  
 a.bit 3nsS-play-PT  
 They played a bit.

Notice that *numa* 'to heal, get better' in (12.72a) behaves as a telic predicate, in spite of what the English translation might suggest. Since delimitatives like *khonma* 'to play' in (12.72b) include a final boundary, *cippa* cannot 'pick out' a stretch that is smaller than the whole event. A delimitative predicate is either claimed as true or not; it cannot be divided up into steps. This is different from an English-style conception of activities, whose Aktionsart probably does not include boundaries but only [φ].

The final test in Table 12.2 distinguishes phases that allow an increasement or emphasis of their intensity or duration:

(12.73) *Aktionsarten Test #7:*

[time span] *lima hire, ajhai* V-TEMP 'it is already [time span], and s/he/it is V-ing even more' is possible.

The test is exemplified by the following predicates, which continue the introductory clause *ek ghanta lima hire* 'it is already an hour...'. (The auxiliary *hima* 'to finish V, to already V' denotes the completion of an event and has a counter-expectative value. The predicate is in opposition with *manma* 'to end, finish', which has no such illocutionary value.)

- (12.74) *ek ghanta li-ma hir-e, ajh-ai ...*  
 one hour be-CIT finish-PT even.more-EMPH  
 It is already one hour...,

- a. .... *e paŋŋ-het.*  
 MAX two.dim-TEMP  
 ....(and) [the river] is getting broader even more.
- b. ... *la umm-het.*  
 walk-TEMP  
 ... and s/he is walking further.
- c. .... *khonŋ-het.*  
 play-TEMP  
 ....(and) he is playing even more.

- d. # .... sonŋ-het  
 get.cooked-TEMP  
 ....(and) it is getting done even more.

Only inchoative (12.74a), ingressive-phasal (12.74b) and delimitative (12.74c) Aktionsarten are possible in this frame. In telic verbs as in (12.74d), the phase selected by the temporary aspect is 'pre-stadial' (Sasse 1991b), i.e., merely relevant, but not yet realised at the moment of utterance. Therefore, it does not make sense to increase its intensity or duration by means of *ajhai*.

Notice that the test in (12.73) does not discriminate between dynamic and static phases. Also static ingressive-phasals and delimitatives respond positively:

- (12.75) a. ek rat li-ma hir-e, ajhai tas khoŋs-a hi-het.  
 one night be-CIT finish-PT even.more card play-SUBJ be.able-TEMP  
 It's already a whole night and he can play cards even further.
- b. das barsa li-ma hi-re, ajhai pandra rupie a-het.  
 ten year be-CIT finish-PT even.more fifteen Rs. cost-TEMP  
 It's already ten years and it still costs fifteen rupees.

The verb *hima* 'to be able' in (12.75a) is homophonous with but syntactically distinct from *hima* 'to finish'. Unlike *hima* 'to finish', it takes stems with the subjunctive marker *-a* as a complement (see Bickel, in press-a).



## Chapter 13

### On the logic and pragmatics of Aktionsarten

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In the last two chapters, Aktionsarten were studied mainly as phenomena on the level of the core predication, i.e., of the lexical character of an individual verb. As pointed out in Chapter 11, however, Aktionsarten are also available for aspectual selection on higher levels of meaning. This is important to notice especially in two types of phenomena. First, Aktionsarten can be relevant on the sentence level, as when adverbial or other semantic specifications add boundaries, thereby changing the Aktionsart on which the aspect operates. Second, they can be relevant on the utterance level, as when an imperfective aspect selects a pragmatically inferred 'plural'-phase. In this chapter, I want to discuss these two phenomena. First, I will have a closer look at various types of boundary additions that result in Aktionsarten changes. Section 13.2 addresses the inceptive marker and the iterative implicature attached to temporary and imperfective marking on 'oriented motion' verbs. This leads to some final remarks on iteration effects in general (Section 13.3).

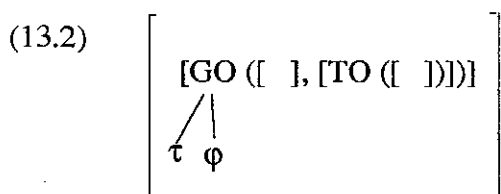
#### 13.1 Aktionsart delimitation by composition

In Section 4 of Chapter 12 we saw that verbs with a  $[\tau \varphi]$  sequence in their Aktionsart, i.e., ingressive-phasal and delimitative verbs, allow time adverbials to specify the duration of an event. (This was Test #4 of the Aktionsarten tests surveyed in Table 12.2). With delimitative verbs, a specification like *ek chin* 'one moment' simply measures the time span between the initial and the final  $\tau$  in the lexical  $[\tau \varphi \tau]$  Aktionsart. With ingressive-phasal verbs, however, the adverbial effectively delimits or 'closes' the lexical  $[\tau \varphi]$  Aktionsart, i.e., it adds a boundary to the temporal tier and measures the time between this boundary and the initial one. A perfectly used simple form, then, selects both boundaries, the one coming from the verb and the one introduced by the adverbial. The result is a reading indistinguishable from what is implied by a delimitative verb under perfective aspect marking. The following examples, which parallel (12.58) in Chapter 12, illustrate this with motion and state verbs. The delimiting adverbial appears in italics.

- (13.1) a. *sat* *baʒe* *Bhedetar* *hon-gar-he-i-ŋa.* *rat* *bhari*  
 seven o'clock Bh. appear-UP.SEQ-PT-1p-e night full  
*kar-he-i-ŋa* *sarhe* *nou* *baʒe* *Dhankuta* *tas-e-m-ma.* <K13>  
 come.up-PT-1p-e one.and.a.half nine o'clock Dh. reach-PT-1pA-e  
 We arrived in Bheḍeṭār at seven o'clock. The whole evening we spent  
 coming up. At half past nine we reached Dhankuṭā.
- b. *pheri* *maṅlabar* *din* *Dhankuta-ro* *la* *um-he-i-ŋa.* <ST22>  
 again Monday day Dh.-ID walk-PT-1p-e  
 On Monday we strolled around again in Dhankuṭā.
- c. *ek* *rat* *huŋ-cha* *sitd-e* *yuŋ-he-i-ga* *i?* <V157>  
 one night COG.TOP-ADD site-LOC be(loc)-PT-2p-2 Q  
 But one night you<sup>P</sup> stayed at the (construction) site?
- d. *ek* *chin* *khāi-t-i,* *pheri* *makkhorok-ma* *liu-t-i!*  
 one moment beautiful-NPT-1p again black-COL.ART be-NPT-1p  
 One is beautiful for a moment [after washing, and] one gets dirty again!

Adverbial time specification is not the only way of delimiting an ingressive-phasal Aktionsart. With one type of verbs, the 'oriented motion' verbs that we came across already in the discussion of the inceptive (Chapter 6), the phase can also be delimited by specifying a spatial goal licensed by the verb's valency. The class of oriented motion verbs includes *khatma* 'to go (off)', *khatma* 'to take' *tama* 'to come', *tatma* 'to bring' *khutma* 'to carry to somebody' and all 'environmental space' verbs, e.g., *katma* 'to come up', *ukma* 'to bring down', *phenma* 'to go across', etc.

The following chart is a semantic representation of oriented motion verbs. I take GO to specify not much more than an event or state with one spatially or temporally extended dimension (cf. Jackendoff 1983). It is neither 'deictic' nor necessarily directed by itself (cf. Wilkins & Hill 1995). Rather, this information can be included in addition to GO, viz. by the constituent TO:



The TO-constituent defines an argument position in which the goal of the motion can be specified. This is different for other motion verbs, which are schematically represented by the following chart.

$$(13.3) \quad \left[ \begin{array}{c} [\text{GO} ([ \quad ])] \\ / \quad | \\ \tau \quad \phi \end{array} \right]$$

Evidence for these representations comes from two differences in the syntax of oriented and non-oriented motion verbs.

First, a noun phrase in the 'directive' case *-leŋ* refers to a goal if used with an oriented verb (13.4a), but to a location with a non-oriented verb (13.4b). The case marker itself describes an angle including the NP referent and extending from the subject or the deictic origin:

- (13.4) a. *khim-leŋ khar-e.*  
           house-DIR go-PT  
           He went to [his] house.
- b. *khim-leŋ pind-he.*  
           house-DIR run-PT  
           He ran around at the house.

Second, whereas oriented motion verbs allow a spatial noun phrase to be left unmarked (13.5a), this is ungrammatical with non-oriented motion verbs (13.5b).

- (13.5) a. *khimm-e / khim-leŋ / khim-∅ khar-e.*  
           house-LOC house-DIR house go-PT  
           He went to / towards the house.
- b. *khimm-e / khim-leŋ / \*khim-∅ la um-he.*  
           house-LOC house-DIR house walk-PT  
           He walked around in / near the house.

Both facts are explained if we assume oriented motion verbs to open a goal argument place in their semantics. Both NP-*leŋ* in (13.4a) and NP-∅ in (13.5a) are direct arguments of *khatma* 'to go', and are assigned a directional meaning by the TO-constituent in (13.2). Non-oriented motion verbs do not open spatial argument places (13.3). Therefore, NP-*leŋ* in (13.4b) needs to be interpreted independently of the verb, which results in a simple 'location' reading. In (13.4b), NP-∅ is ungrammatical because no element in the sentence would license a bare NP as a direct and governed argument.<sup>1</sup>

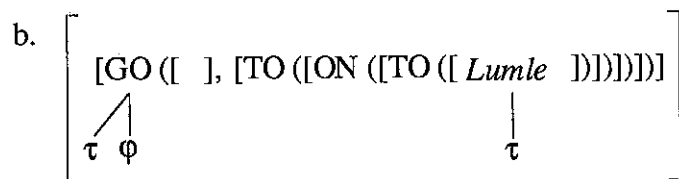
<sup>1</sup> *Dhankuta* in (13.1b) needs no overt locative marker because it is a place name. If it were substituted by a common name, case marking would be compulsory also in this example.

Another feature of oriented motion verbs is that a subgroup of them are the only verbs that are compatible with the inceptive (Chapter 6) and incompatible with the spatially defocused temporary (SDT; see Chapter 8) marker. Other verbs, whose translation suggests 'oriented motion', prove to have a different Aktionsart. A case in point is *lik-*, which at first sight translates as 'enter'. This verb is in fact no motion verb at all, but denotes a pure change of state, viz. the change of the theme from being outside to being inside (cf. Kita, forthcoming, for a similar observation about Japanese). The temporal tier of this verb does not include a phase but only [ $\tau$ ]. This is why, as we have seen in example (12.54) of Chapter 12, the verb cannot appear in the temporary or imperfective — unless interpreted iteratively.

Oriented motion verbs, by contrast both with punctual verbs like *likma* 'enter' and non-oriented motion verbs like *pinma* 'run', open an argument position for goals, as shown in (13.2). If the goal is specified, this introduces a final boundary to the event: a spatially delimited path is also delimited in time (cf. Jackendoff 1983). Such a delimitation can be achieved by several different means, both to the effect that the simple past forms can no longer apply to present time motion: the expression behaves just as if the lexical Aktionsart were delimitative.

A first option is an explicit noun phrase like *Lumle* as in the following example (13.6a). The chart in (13.6b) explicates (partially) the semantic structure of the clause. (For justification of the complex path constituent ([TO([ON([TO( )]))])), see Bickel 1994: 45ff.)

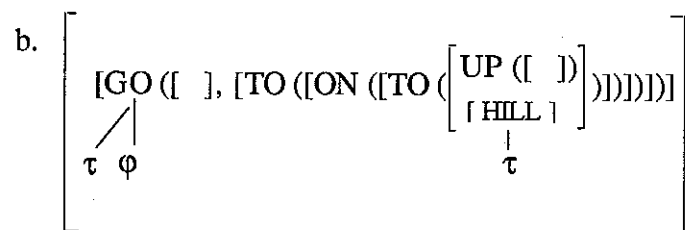
- (13.6) a. Lumle khar-i-ŋ-na male was-e-i-ŋa. <ST69>  
 L. go-1p-e-TOP NOT walk.around-PT-1p-e  
 As soon as we got to Lumle, we walked around [to do sight-seeing].



Another way of introducing a boundary is by specifying the path of the verb. This is what happens in environmental space verbs:

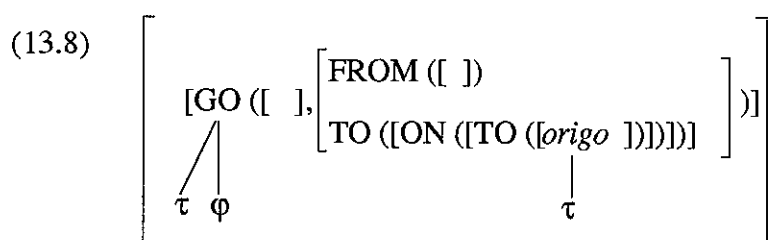
- (13.7) a. yu-ro n-thar-he.  
 ACROSS-ID 3nsS-go.UP-PT  
 They went up over there.





In both cases (13.6) and (13.7), the clauses could not be used with present time reference, the composite Aktionsart fails Test #1 from Chapter 12. Notice that the boundaries in the charts are associated with exactly that constituent that is responsible for the temporal delimitation. In (13.7), this is the hill, to which the motion is ultimately oriented and on which the UP-relation is defined (see Bickel 1994 for discussion). This does not imply that the subject referents already reached the hill top. What is implied is only that the path is delimited, and this prevents the expression from a purely ingressive reading. Notice that it is difficult to see how such observations could be captured in an Aktionsarten theory that does not differentiate temporal and non-temporal information on distinct representational tiers.

Yet another way to fill the [TO...] constituent of motion verbs is by inserting the deictic origin. Thus, the verb *tama* 'come' will have the following representation.



However, an expression like the following is perfectly appropriate at the moment of utterance; it seems indeed to be a typical example of what is known in Slavic studies as the 'perfect' meaning of the perfective aspect.

- (13.9) ta-he.  
 come-PT  
 He has arrived / he is coming.

At first sight, this seems to contradict the claim that filling the [TO...] argument introduces a final boundary so that a perfectively used simple past form is no longer suitable for present time reference. However, the present time reference of (13.9) does not derive from the configuration on the temporal tier. Rather it is due to the fact that the completion of coming necessarily takes place at the speaker's location. This also applies

to verbs of coming that are specified for a particular direction. Sentences like the following are very typical when the bus is just approaching the speaker's place.

- (13.10) tu! bas uŋs-e!  
 UP bus come.DOWN-PT  
 Look there! the bus has just arrived!

In the corresponding semantic representation (13.11) the source path is said to be from 'up' with respect to the global inclination of the Himalayan mountain range in Nepal. In Belhara, this means that the bus comes from the north (cf. Bickel 1994 for details).

- (13.11) 
$$\left[ \begin{array}{l} \text{[GO ([ } \tau \text{ ]}, \left[ \begin{array}{l} \text{FROM ([ON([TO ([UP ([ } \phi \text{ ]})})}) \\ \text{[Himal ]})})}) \\ \text{TO ([ON ([TO ([origo ]))})}) \end{array} \right] \text{ ]}] \end{array} \right]$$

Thus, the logic of space and time here overrides an aspectual constraint, which would otherwise prohibit use of the expression with present time reference.

### 13.2 Pragmatically induced Aktionsarten: phases and the inceptive

In Chapter 11, I pointed out that event pluralisation can introduce phases into an Aktionsart representation and thereby make a verb compatible with a  $\phi$ -selector even if it is punctual in its lexical representation. Event pluralisation can be explicit if it is the logical consequence of nominal plural (e.g., *Balloons are popping*) or implicit if it simply results from the pragmatic understanding of the situation (e.g. *The light was flashing*.) For aspectual marking, it is irrelevant whether the plural and the attached phase-symbol is generated semantically or pragmatically. This follows from the Aspectual Uniformity Hypothesis in (11.22). The hypothesis allows a straightforward account of the iteration effects tied to temporary and imperfective marking on verbs of restricted oriented motion ('ROM') as discussed in Chapter 6. In order to see this, we must briefly review the semantics of the inceptive.

The inceptive (*-kett*) selects the initial boundary of a ROM verb. Thereby, the expression signals that a motion has started to develop at the moment of utterance. From this, it logically follows that the event is in progress. In the following example, the

emphasis is on the sudden appearance of a bus, i.e., on the inception of a new situation. Clearly, however, this also means that the situation is now developing:

- (13.12) tu! tu-i-ne-e                    i-gira                    uŋ-ge ...                    tu! ...  
 UP UP-DIST-LDEM-LOC one-NON.HUM come.DOWN-INC UP  
 i-ne-e                    honn-uŋs-e. <G5.31a>  
 DIST-LDEM-LOC appear-DOWN-PT  
 Up there! up there there is one [bus] coming down ... up there! ... there it  
 just appeared.

In the Belhare inceptive, the 'progressive' effect is not semantically encoded but derives from a general logical inference from 'inception of a situation' to 'factuality of the situation'. Building such an inference scheme into the stored semantics of an individual morpheme would lead not only to an unduly rich lexicon but would ignore the general currency of the scheme: to infer a situation from a transition or a state from a change of state does hardly require specific lexical knowledge. Moreover, if the inceptive were to select phases, one would expect that the form is incompatible with Aktionsarten that lack phases. This is not the case, though.

Consider the following example:

- (13.13) ta-hett-u.  
 reach-TEMP-3U  
 S/he is reaching [the place] again and again.

Like its translational equivalent in English, a punctual-terminative verb like *tama* 'to reach' is not open for  $\phi$ -selecting aspects, unless it is 're-categorised' as iterative. The inceptive, although describing a phase in progress in (13.10) and (13.12), is easily suffixed to a punctual predicate without forcing an iterative reading:

- (13.14) mi-n-ta-gett-u-n.  
 3nsA-NEG-reach-INC-3U-NEG  
 They have not reached [the place] yet.

What is essential for the inceptive is only that there is an initial boundary. This condition is satisfied by both the ingressive-phasal verb *uŋma* 'to come down' in (13.10) or (13.12) and the punctual verb *tama* 'to reach' in (13.14). The inceptive in (13.14) selects the only available boundary and treats it as initial in a situation. From this we can conclude — by way of general inference — that there is a negated post-transitional phase

in which 'they have not reached the place'.<sup>1</sup> From this it appears that the inceptive is virtually unrestricted: it applies to all Aktionsarten, for as we have seen in Chapter 12 all predicates include at least one boundary open for selection.

However, this holds for negative forms only. In the affirmative, the picture looks different. According to the analysis proposed in Chapter 6, the semantics of the inceptive includes a constraint that restricts the morpheme to a subclass of oriented motion verbs, i.e., ROM verbs. The inceptive selects the initial boundary of these verbs and from this selection we can logically infer that the motion is in progress at the moment of utterance. Thus, selection of  $\tau$  in a (13.15a) results in the usual cursive reading of a form like *khatke*:

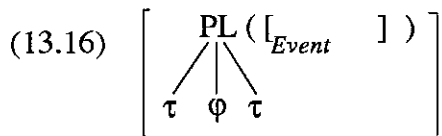
$$(13.15) \quad a. \quad \left[ \begin{array}{c} [\text{GO} ([ \quad ], [\text{TO} ([ \quad ]))] \\ / \quad | \\ \tau \quad \phi \end{array} \right]$$

- b. *khat-ke*.  
go-INC  
S/he is going.

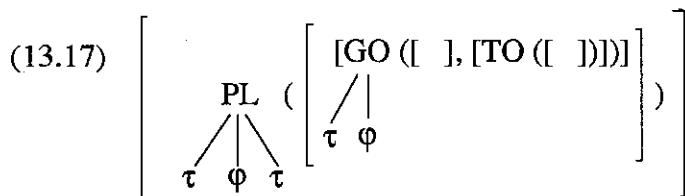
With verbs having the 'oriented motion' Aktionsart shown by (13.15a), the inceptive is the most informative form with cursive value: it is specifically designed for the Aktionsart, and its application implies whatever other cursive aspect markers would also denote, i.e., that the motion is in progress. From the Sufficiency Principle it follows that a speaker is supposed to use the inceptive wherever s/he can, i.e., with all ROM verbs if the utterance is affirmative. If the speaker does not do so, although s/he is describing an oriented motion, s/he violates the principle. Under the assumption of cooperative conversational behaviour, the hearer will conclude that the speaker was not in a position to use the inceptive. The only condition under which this might be the case is that the oriented motion verb has a different Aktionsart than (13.15a). For the hearer, there is only one way to derive from (13.15a) an alternative Aktionsart that is incompatible with the inceptive: the structure in (13.15a) needs to be mapped into an Aktionsart where  $\tau$  is not associated with GO. This is impossible to do by simply adding boundaries or phases. The other option, which is to delete the  $\tau$ , would run counter to the very idea of lexical semantics: it seems absurd to assume that a pragmatic interpretation could reduce a lexically encoded structure. Therefore, the only possible way is to find a function that maps the whole structure in (13.15a) into a different Aktionsart. There is one such

<sup>1</sup> Incidentally, the inference to such a phase is probably the reason why the negative inceptive often translates as a perfect in English, i.e., by a form that explicitly refers to a post-event situation.

function in Belhare (as in many other languages), and this is the plural or 'iteration' function introduced in Chapter 11. In Chapter 12 I presented evidence that there are no Aktionsarten in Belhare without boundaries: what translates as a state or activity in English is either ingressive-phasal or delimitative in Belhare. This suggests that in Belhare the plural operator too has a delimitative phase attached to it.



Now, if a speaker marks a verb of oriented motion by a cursive aspect other than the inceptive, the hearer will interpret the utterance in such a way that the Aktionsart includes the PL-operator. In more traditional terms, the hearer will assume a 're-categorisation' of the predicate's Aktionsart:



A temporary aspect will be interpreted as selecting the  $[\tau \ \varphi \ \tau]$  sequence of the PL-operator in (13.17). This predicts the reading of temporally limited iteration observed in Chapter 6:

- (13.18) khatd-het.  
go-TEMP  
S/he (regularly) goes (these days).

An imperfective aspect will be taken as selecting the  $\varphi$  of the PL-function, and will trigger a continuative implicature. This effect results, as we saw in Chapter 5, from a minimisation implicature that concludes from the non-use of a temporary aspect marker to a denial of temporariness:

- (13.19) ta-yau-ʔ-ŋa.  
come-IPFV-NPT-e  
I (will) keep coming.

In both cases (13.18) and (13.19), the Sufficiency Principle makes it unlikely that the  $\phi$ -selector would select the inner  $[\tau \phi \tau]$  sequence, because, if this is what the speaker intended, he or she would probably have chosen the better fitting inceptive.

Notice that the Aktionsart pattern attached to the PL-operator not only explains the generalised conversational implicatures of using the temporary or imperfective but also the fact that the inceptive cannot have an iterative reading (in the affirmative). This restriction is the same as the one that prevents the morpheme from being suffixed to verbs other than 'oriented motion' verbs. In affirmative utterances, the inceptive can only select initial boundaries associated with GO.

### 13.3 Iteration effects again

In the preceding section, we saw that the Sufficiency Principle preempts a non-iterative reading of a temporary or imperfective aspect on verbs of restricted oriented motion: if a non-iterative meaning were intended, the speaker would be obliged to use the inceptive. This heuristic is fundamental for iterative readings in general.

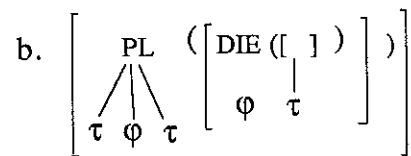
As has long been emphasised by Slavicists, iteration creates a distinction between an over-all time structure and the time structure of the individual sub-event (see Chapter 2). In the formalism proposed here, this corresponds to the distinction between the outer phase attached to PL and the inner Aktionsart attached to the semantic constituents of the verb, as illustrated for instance by (13.17) above. In Slavic languages, there is in principle a choice between selecting the inner or outer Aktionsart, and languages differ as to which they favour: Czech favours the inner, Russian the outer time pattern. These tendencies notwithstanding, there does not seem to be a principled ban on the selectability of either pattern. Even Russian allows the perfective to select a boundary in iterated events. This is the case in the so-called 'vivid exemplification' use (*nagljadno-primernoje značenie*) of the perfective (Maslov 1974: 118)

- (13.20) u nego takaja privyčka — kak vernetsja  
 at 3sM:GEN such:sF:NOM habit when come.back:PFV:3sNPT  
 s progulki, (srazu) otkroet okno.  
 from promenade:sF:GEN at.once open:PFV:3sNPT window  
 He has such a habit: whenever he comes back from a promenade, he  
 immediately opens the window.

Thus, the marked aspect category, i.e., the perfective in Slavic languages, can in principle apply to both layers of temporal structure.

This seems to be different in Belhare. I have not come across iterative constructions where a marked aspect operator, in this case a  $\phi$ -selector, would select an Aktionsarten element of the individual sub-event. What seems to be at most a matter of tendencies in Russian is a pragmatic principle in Belhare: imperfective and temporary seem to exclusively select the phase attached to the PL-operator (cf. Chapters 7 and 11). A case in point is the following example (13.21a) with the telic predicates *sima* 'to die'. The multitude of subjects marked on the verb and the quantifier *dherai* 'many' trigger event pluralisation in the way represented by (13.21b). The example is extracted from an old Gurkha soldier's recollections of the Second World War.

- (13.21) a. i-khe-na-ro                    n-si-yakt-he            dher-ai            maʔi-chi,  
 DIST-MDEM-TOP-ID    3nsS-die-IPFV-PT many-EMPH human-ns  
 male-na-ŋa                    mi-n-si-ya-at-ni. <V136b>  
 NEG-TOP-EMPH    3nsS-NEG-die-IPFV-PT-NEG  
 That way, many people died, otherwise they wouldn't have died.



The imperfective selects the phase attached to the plural operator, not the one inherent to the telic Aktionsart of *sima* 'to die' that is in the scope of PL. As a result, the event is no longer defeasible (cf. the Aktionsarten Test #5 in Chapter 12): the death of the troops in (13.21) is irrevocable and the imperfective is used to describe the multitude of the events rather than the telic nature of the individual tragedy. A similar observation can be made for French. In a critique of the relevance of telicity for aspectual meaning, Weinrich (1964: 169) used the following example to refute the claim that imperfective marking on a telic predicate induces a defeasible truth value of the event.<sup>1</sup>

- (13.22) Chefs, soldats, tous mouraient.  
 Chiefs, soldiers, all died.

The phenomenon is the same as in (13.21): the event is not defeasible because it is not the  $\phi$  of *mourir* 'to die' but rather the  $\phi$  attached to PL that is selected by the *imparfait* (cf. Johanson 1971: 206). Just as in the Belhare example, PL is marked by the multitude of subjects and by a quantifier. Turkish shows the same logic. As noted by Johanson

<sup>1</sup> "Es kann gar nicht die Rede davon sein, dass die Verbform *mouraient* hier die Bedeutung haben könnte: 'sie lagen im Sterben', gar noch mit der Nebenbedeutung: 'aber sie kamen davon'. Nein, sie sind nicht davongekommen. Der angeblich imperfektive Aspekt des *Imparfait* bricht also dem 'telischen' Verb *mourir* nicht die Spitze ab" (p. 169)

(*loc. cit.*), the plural subject in the following example triggers event pluralisation (in his words a *quantitative Umdeutung* ‘quantitative reinterpretation’).

- (13.23) yıldaz-lar birer birer sön-üyor-du.  
 star-p one.by.one extinguish-IPFV-PT  
 The stars extinguished one by one.

Due to this event pluralisation, the imperfective no longer highlights the defeasability of the event denoted by the telic verb *sönmek* ‘to extinguish’ but rather the multitude of events, i.e., the phase attached to PL.

Why should Belhare, French and Turkish behave alike here and have a  $\phi$ -selector operate virtually always on the outer PL-phase rather than an inner phase? The reason is markedness.<sup>1</sup> In all three languages the marked member of the aspectual system is a  $\phi$ -selector;  $\tau$ -selectors are unmarked and arise only from ‘simple forms’ as generalised conversational implicatures. This is the exact mirror-image of Slavic languages (see Chapter 2). If, as is the case in (13.21b), there are two possible  $\phi$  that can be selected, the Sufficiency Principle requires that the phase providing most information about the situation is selected. This is the outer phase: it implies not only that there was an event but that the event was repeated or distributed. In a Slavic language, there is no such principled preference for the outer phase, because there is no marker that would allow to explicitly highlight this phase:  $\phi$ -selection in Slavic is an implicit phenomenon, established only as a result of the Horn-scale <PERFECTIVE,  $\emptyset$ >.

If this is correct, we would expect that the unmarked category of Belhare, i.e., the simple form, would be as neutral to the inner vs. outer distinction as the imperfective in Slavic. This is borne out by the data we looked at in Chapter 7. The simple form shows a bias towards inner scope but examples with outer scope are also well attested. If the form has scope over the inner Aktionsart, the simple form is used as  $\tau$ -selector, highlighting the ‘totality’ of the individual sub-events (13.24a). If the outer time structure, i.e., the [ $\tau \phi \tau$ ] pattern associated to PL, is in the foreground, the simple form is used in an aspectually neutral sense to convey the idea of a state-like habit (13.24b):

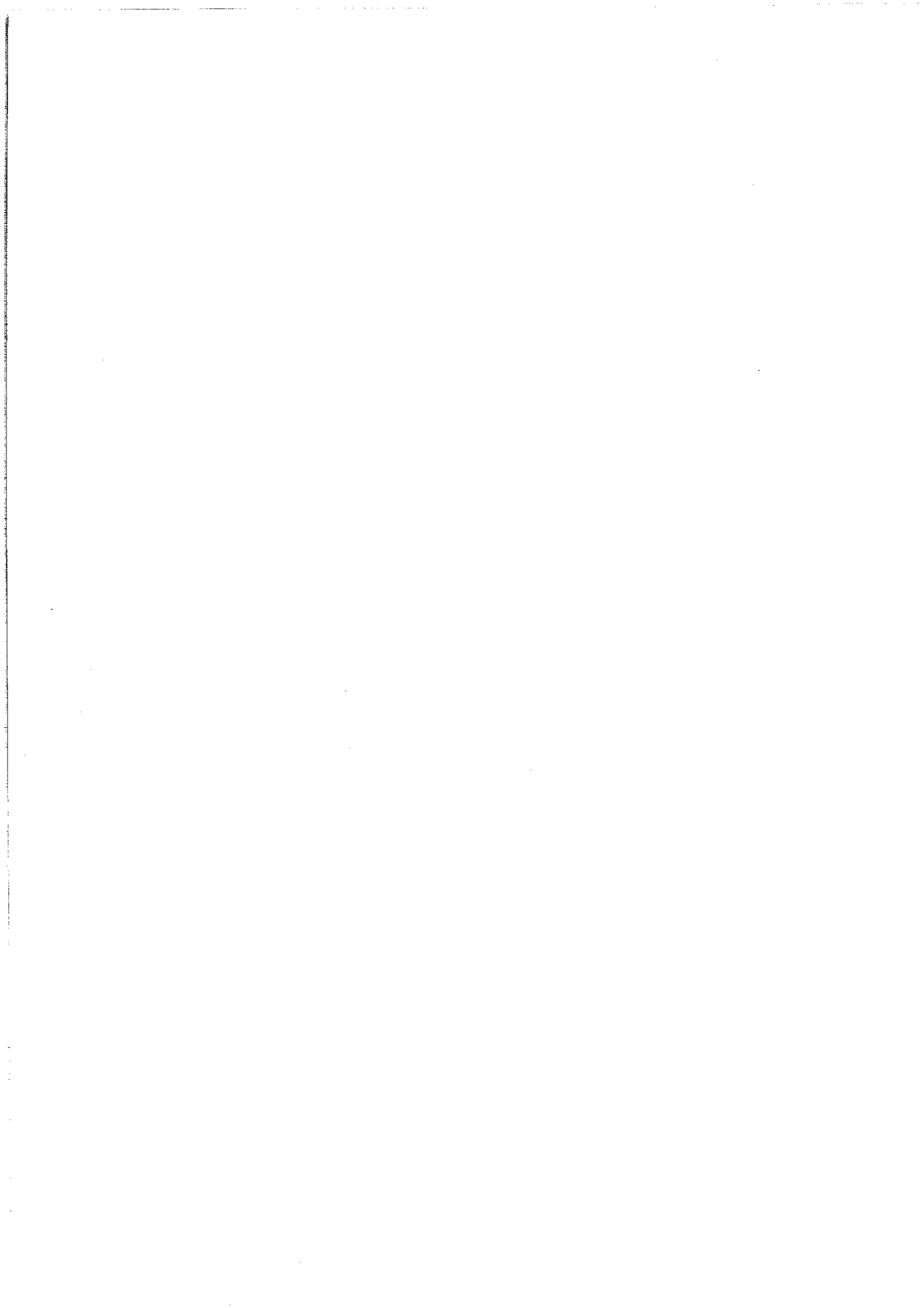
- (13.24) a. pʌisa akkasa unchik-ŋaha, Kathmandu ŋ-kha?-yu,  
 money a.lot 3ns-GEN K. 3nsS-go-NPT  
 n-ta-yu, yeti-no! <V163>  
 3nsS-come-NPT what-CONF  
 They have a lot of money, they travel to Kathmāṇḍū and back, what  
 would you think!

<sup>1</sup> English appears to be different, probably because the *be...V-ing* form is still less grammaticalised than the  $\phi$ -selectors in the other languages mentioned. The question awaits further research, though.



- b. em-gari η-khoŋ-t-u? <K30>  
how-ABL 3nsA-play-NPT-3U  
How do they play [cards in Switzerland]?

When I first started to study aspect in Belhare, the suffix *-yakt* appeared to me as a ‘distributive’ or ‘repetitive’ marker (and ‘DISTR’ even was the first gloss I used, e.g., in Bickel 1993). This function is indeed prominent but now it is explained as the result of universal pragmatic principles and a language-specific markedness pattern. At least for my personal understanding of Belhare, this is an important step of progress.



# Appendix



## Appendix A: Verb Inflection Paradigms

The following table gives an overview of the morphemes marking person, number and role in the Belhare verb. The subsequent table (A.1) shows how these morphemes are added to stems ( $\Sigma$ ) *in abstracto*. Tables A.2 through A.14 illustrate the inflectional paradigms of the intransitive verb *khatma* 'to go' and the transitive verb *luma* 'to tell' in various tense, mood and aspect forms. In each cell of the tables, the upper entry is the affirmative, the lower the negative form.

---

pf1	<i>ma/i-</i>	'First Person Nonsingular Exclusive U'
	<i>ma-</i>	'First Person Singular U'
		~ <i>mai-</i> if directly followed by the stem
		~ <i>ka-</i> in forms with a second person A
	<i>ka-</i>	'First Person Nonsingular Inclusive U'
pf2	<i>ak-</i>	'Optative Mood Marker'
pf3	<i>N-</i>	'Third Person Actor' (used only if acting on a second person)
	<i>N-</i>	'Third Person Nonsingular A or S'
		~ <i>mi-</i> (in pf1 position) in negative forms with third person S or U
	<i>N-</i>	'Negation marker'
		~ <i>miN-</i> in infinitive forms
$\Sigma$		
sf1-2		tense, aspect, and mood markers
sf3	<i>-na</i>	'First Person A and Second Person U'
		~ <i>-nan</i> before <i>-i</i> 'First or Second Person Plural'
sf4	<i>-chi</i>	'Dual'
	<i>-i</i>	'First or Second Person Plural'
		~ <i>-ik</i> in imperatives (and pronouns)
sf5	<i>-u</i>	'Third Person U'
		~ zero in negative forms with a filled sf8 slot position
sf6	<i>-ni</i>	'Negation marker'
		~ <i>-n</i> after vowel
sfC		(copy slot for nasal-only morphs following the slot filler <i>-chi</i> from sf7)

sf7	<i>-chi</i>	'Nonsingular A or U'
sf8	<i>-ŋ</i>	'First Person Singular A' (used only if acting on a third person)
	<i>-m</i>	'First or Second Person Plural or Nonsingular A' (used only if acting on a third person)
sf9	<i>-Na</i>	'First Person Exclusive S or A' ~ <i>-N</i> after <i>-ni</i> 'Negation marker' or in the environment V_CV
	<i>-kak</i>	'Second Person' ~ <i>-ka</i> word-finally or before vowel ~ <i>-k</i> in the environment <i>a</i> _ CV

---

*Table A.1: Overview on Verb Agreement Morphemes*

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	Undergoer										Intransitive
	1s	Ins.excl.	Ins.incl.	2s	2p	2d	3s	3ns			
1s				$\Sigma$ -na N- $\Sigma$ -na-n	$\Sigma$ -nan-i N- $\Sigma$ -nan-i-n	$\Sigma$ -na-chi N- $\Sigma$ -na-n-chi-n	$\Sigma$ -u- $\eta$ N- $\Sigma$ -ni- $\eta$	$\Sigma$ -u- $\eta$ -chi- $\eta$ N- $\Sigma$ -ni- $\eta$ -chi- $\eta$	$\Sigma$ -Na N- $\Sigma$ -ni- $\eta$		
1p.excl.				$\Sigma$ -na-chi-Na N- $\Sigma$ -na-n-chi-n-Na			$\Sigma$ -u-m-Na N- $\Sigma$ -ni-m-Na	$\Sigma$ -u-m-chi-m-Na N- $\Sigma$ -ni-m-chi-m-Na	$\Sigma$ -i-Na N- $\Sigma$ -i-n-Na		
1d.excl.							$\Sigma$ -chi-u-Na N- $\Sigma$ -chi-u-n-Na		$\Sigma$ -chi-Na N- $\Sigma$ -chi-n-Na		
1p.incl.							$\Sigma$ -u-m N- $\Sigma$ -ni-m	$\Sigma$ -u-m-chi-m N- $\Sigma$ -ni-m-chi-m	$\Sigma$ -i N- $\Sigma$ -i-n		
1d.incl.							$\Sigma$ -chi-u N- $\Sigma$ -chi-u-n		$\Sigma$ -chi N- $\Sigma$ -chi-n		
2s	ka- $\Sigma$ -ka ka- $\Sigma$ -ni-ka	mafi- $\Sigma$ -ka mafi- $\Sigma$ -ni-ka		$\Sigma$ -u-ka N- $\Sigma$ -u-n-ka	$\Sigma$ -u-ka N- $\Sigma$ -u-n-ka	$\Sigma$ -u-ka N- $\Sigma$ -u-n-ka	$\Sigma$ -u-ka N- $\Sigma$ -u-n-ka	$\Sigma$ -u-ka N- $\Sigma$ -u-n-ka	$\Sigma$ -ka N- $\Sigma$ -ni-ka		
2p	ka- $\Sigma$ -i-ka ka- $\Sigma$ -i-n-ka	mafi- $\Sigma$ -i-ka mafi- $\Sigma$ -i-n-ka		$\Sigma$ -u-m-ka N- $\Sigma$ -ni-m-ka	$\Sigma$ -u-m-ka N- $\Sigma$ -ni-m-ka	$\Sigma$ -u-m-ka N- $\Sigma$ -ni-m-ka	$\Sigma$ -u-m-ka N- $\Sigma$ -ni-m-ka	$\Sigma$ -u-m-ka N- $\Sigma$ -ni-m-ka	$\Sigma$ -i-ka N- $\Sigma$ -n-ka		
2d	ka- $\Sigma$ -chi-ka ka- $\Sigma$ -chi-n-ka	mafi- $\Sigma$ -chi-ka mafi- $\Sigma$ -chi-n-ka		$\Sigma$ -chi-u-ka N- $\Sigma$ -chi-u-n-ka	$\Sigma$ -chi-u-ka N- $\Sigma$ -chi-u-n-ka	$\Sigma$ -chi-u-ka N- $\Sigma$ -chi-u-n-ka	$\Sigma$ -chi-u-ka N- $\Sigma$ -chi-u-n-ka	$\Sigma$ -chi-ka N- $\Sigma$ -chi-n-ka	$\Sigma$ -chi-ka N- $\Sigma$ -chi-n-ka		
3s	mai- $\Sigma$ mai- $\Sigma$ -ni	mafi- $\Sigma$ mafi- $\Sigma$ -ni	ka- $\Sigma$ ka- $\Sigma$ -ni	N- $\Sigma$ -ka N- $\Sigma$ -ni-ka	N- $\Sigma$ -i-ka N- $\Sigma$ -i-n-ka	N- $\Sigma$ -chi-ka N- $\Sigma$ -chi-n-ka	$\Sigma$ -u N- $\Sigma$ -u-n	$\Sigma$ -u-chi N- $\Sigma$ -u-n-chi-n	$\Sigma$ N- $\Sigma$ -ni		
3p	ma-N- $\Sigma$ ma-N- $\Sigma$ -ni	mafi-N- $\Sigma$ mafi-N- $\Sigma$ -ni	ka-N- $\Sigma$ ka-N- $\Sigma$ -ni				N- $\Sigma$ -u mi-N- $\Sigma$ -u-n	N- $\Sigma$ -u-chi mi-N- $\Sigma$ -u-n-chi-n	N- $\Sigma$ mi-N- $\Sigma$ -ni		
3d	ma-N- $\Sigma$ -chi ma-N- $\Sigma$ -chi-n	mafi-N- $\Sigma$ -chi mafi-N- $\Sigma$ -chi-n	ka-N- $\Sigma$ -chi ka-N- $\Sigma$ -chi-n				N- $\Sigma$ -ch-u mi-N- $\Sigma$ -ch-u-n		N- $\Sigma$ -chi mi-N- $\Sigma$ -chi-n		

Table A.2: Morpheme template for person/number/role inflection

	Undergoer						Intransitive	
	1s	1ns.excl.	1ns.incl.	2s	2p	2d		3s
1s							<i>khata</i>	<i>khata</i>
1p.excl.							<i>khariya</i>	<i>khariya</i>
1d.excl.							<i>khatchiga</i>	<i>khatchiga</i>
1p.incl.							<i>khatchina</i>	<i>khatchina</i>
1d.incl.							<i>khari</i>	<i>khari</i>
A							<i>kharin</i>	<i>kharin</i>
t							<i>khatchi</i>	<i>khatchi</i>
c							<i>khatchin</i>	<i>khatchin</i>
o							<i>kharka</i>	<i>kharka</i>
r							<i>kharka</i>	<i>kharka</i>
2s	<i>kaluga</i>	<i>ma?huga</i>	<i>luruga</i>	<i>luruga</i>	<i>luruga</i>	<i>luruga</i>	<i>luruga</i>	<i>kharka</i>
2p	<i>kaluga</i>	<i>ma?huga</i>	<i>luruga</i>	<i>luruga</i>	<i>luruga</i>	<i>luruga</i>	<i>luruga</i>	<i>kharka</i>
2d	<i>kaluga</i>	<i>ma?huga</i>	<i>luruga</i>	<i>luruga</i>	<i>luruga</i>	<i>luruga</i>	<i>luruga</i>	<i>kharka</i>
3s	<i>kaluchinga</i>	<i>ma?huchinga</i>	<i>luchuga</i>	<i>luchuga</i>	<i>luchuga</i>	<i>luchuga</i>	<i>luchuga</i>	<i>khatchiga</i>
3p	<i>kaluchinga</i>	<i>ma?huchinga</i>	<i>luchuga</i>	<i>luchuga</i>	<i>luchuga</i>	<i>luchuga</i>	<i>luchuga</i>	<i>khatchiga</i>
3d	<i>kaluchinga</i>	<i>ma?huchinga</i>	<i>luchuga</i>	<i>luchuga</i>	<i>luchuga</i>	<i>luchuga</i>	<i>luchuga</i>	<i>khatchiga</i>

Table A.3. Zero forms (i.e., forms without *s*1 or *s*2 filler, see Chapter 4)



	Undergoer										Intransitive	
	1s	1s.excl.	1s.incl	2s	2p	2d	3s	3ns				
1s				akluna ajlunan	aklunani ajlunanin	aklunachi ajlunanchin	akluru ajlunij	aklurumchij ajlunijchij	akkhatna ajkhatnij			
1p.excl.				aklunachiya ajlunanchinna			aklurumma ajlunimma	aklurumchimma ajlunimchimma	akkhariga ajkharinna			
1d.excl.							akluchuga ajluchunna		akkhatchiga ajkhatchinna			
1p.incl.							aklurum ajlunim	aklurumchim ajlunimchim	akkhari ajkharin			
1d.incl							akluchu ajluchun		akkhatchi ajkhatchin			
A												
C												
t	kaakluga	ma?iakluga										
O	kaakluniga	ma?iakluniga										
r	kaakluriga	ma?iakluriga										
	kaakluringa	ma?iakluringa										
	kaakluchiga	ma?iakluchiga										
	kaakluchinga	ma?iakluchinga										
2s							akluruga ajlurunga	akluruchiga ajlurunchinga	akkhatka ajkhatniga			
2p							akluruga ajlunimiga	aklurumchimga ajlunimchimga	akkhariga ajkharinga			
2d							akluchuga ajluchunga		akkhatchiga ajkhatchinga			
3s				ajluga ajluniga	ajluriga ajlurunga	ajluchiga ajluchinga	akluru ajlurun	akluruchi ajlurunchin	akkhat ajkhatni			
3p							ajluru miajlrurun	ajluruchi miajlrurunchin	ajkhat miajkhatchi			
3d							ajluchu miajlruchun		ajkhat miajkhatchi			

Table A.4: Optative

	Undergoer				Intransitive				
	1s	1ns.excl.	2s	2s	2d	3s	3ns		
A C t i v e	2s	kalura	maʔilura					khara	qkhatran
	2p	kalunan	maʔilunan					luruchi	qkharanik
		kaluranik	maʔiluranik					nlurunchin	qkhatranan
	2d	kalunanin	maʔilunanin					luranumchin	qkhatranichin
		kalurachi	maʔilurachi					nlunanumchin	kharachi
		kalunanachin	maʔilunanachin					nlunanchun	qkhatranachin

Table A.5: Imperative

		Undergoer							Intransitive		
		1s	1ns.excl.	1ns.incl.	2s	2p	2d	3s	3ns		
1s					<i>lui?na</i> <i>nlui?nan</i>	<i>lui?nani</i> <i>nlui?nanin</i>	<i>lui?nachi</i> <i>nlui?nanchin</i>	<i>luituy</i> <i>nlui?niq</i>	<i>luituychig</i> <i>nlui?niqchig</i>	<i>khai?qa</i> <i>qkhai?niq</i>	
1p.excl.					<i>lui?nachiqa</i> <i>nlui?nanchinna</i>			<i>luitumma</i> <i>nlui?nimma</i>	<i>luitumchimma</i> <i>nlui?nimchimma</i>	<i>khaiiqa</i> <i>qkhaiinna</i>	
1d.excl.								<i>luichuga</i> <i>nluichunna</i>		<i>khaichiqa</i> <i>qkhaiichinna</i>	
1p.incl.								<i>luitum</i> <i>nlui?nim</i>	<i>luitumchim</i> <i>nlui?nimchim</i>	<i>khaii</i> <i>qkhaiin</i>	
1d.incl.								<i>luichu</i> <i>nluichun</i>		<i>khaiichi</i> <i>qkhaiichin</i>	
2s		<i>kaluika</i> <i>kalui?niga</i>	<i>ma?iluiika</i> <i>ma?ilui?niga</i>					<i>luituga</i> <i>nluitunga</i>	<i>luituchiga</i> <i>nluitunchinga</i>	<i>kbaika</i> <i>qkhai?niga</i>	
2p		<i>kaluitiga</i> <i>kaluitinga</i>	<i>ma?iluitiga</i> <i>ma?iluitinga</i>					<i>luitumga</i> <i>nlui?nimga</i>	<i>luitumchimga</i> <i>nlui?nimchimga</i>	<i>khaiitiga</i> <i>qkhaiitiga</i>	
2d		<i>kaluichiga</i> <i>kaluichinga</i>	<i>ma?iluichiga</i> <i>ma?iluichinga</i>					<i>luichuga</i> <i>nluichunga</i>		<i>khaiichiga</i> <i>qkhaiichinga</i>	
3s		<i>mailuyu</i> <i>mailui?ni</i>	<i>ma?iluyu</i> <i>ma?ilui?ni</i>	<i>kaluyu</i> <i>kalui?ni</i>	<i>nluika</i> <i>nlui?niga</i>	<i>nluitiga</i> <i>nluitinga</i>	<i>nluichiga</i> <i>nluichinga</i>	<i>luitu</i> <i>nluitun</i>	<i>luituchi</i> <i>nluitunchin</i>	<i>kha?yu</i> <i>qkhai?ni</i>	
3p		<i>maqbyu</i> <i>maqbyui?ni</i>		<i>kaqbyu</i> <i>kaqbyui?ni</i>				<i>nluitu</i> <i>minluitun</i>	<i>nluituchi</i> <i>minluitunchin</i>	<i>qkha?yu</i> <i>miqkhai?ni</i>	
3d		<i>maqbyuchi</i> <i>maqbyuchin</i>	<i>ma?iluyuchi</i> <i>ma?iluyuchin</i>	<i>kaqbyuchi</i> <i>kaqbyuchin</i>				<i>nluichu</i> <i>minluituchun</i>		<i>qkhaiichi</i> <i>miqkhaiichin</i>	

Table A.6: Simple Non-past

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		Undergoer						Intransitive															
		1s	Insexcl.	Insincl.	2s	2p	2d	3s	3ns														
A C T I O R	1s								1s	Insexcl.	Insincl.	2s	2p	2d	3s	3ns	Intransitive						
	1p.excl.								1p.incl.	Id.excl.	Id.incl.	2s	2p	2d	3s	3ns							
	2s								kaluyauka	maʔiluyauka	kaluyan	nlyauka	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	khaʔyauʔniga
	2p								kaluyauʔniga	maʔiluyauʔniga	kaluyauʔniga	maʔiluyauʔniga	kaluyauʔniga	maʔiluyauʔniga	kaluyauʔniga	maʔiluyauʔniga	kaluyauʔniga	maʔiluyauʔniga	kaluyauʔniga	maʔiluyauʔniga	kaluyauʔniga	maʔiluyauʔniga	khaʔyauʔniga
	2d								kaluyauʔniga	maʔiluyauʔniga	kaluyauʔniga	maʔiluyauʔniga	kaluyauʔniga	maʔiluyauʔniga	kaluyauʔniga	maʔiluyauʔniga	kaluyauʔniga	maʔiluyauʔniga	kaluyauʔniga	maʔiluyauʔniga	kaluyauʔniga	maʔiluyauʔniga	khaʔyauʔniga
	3s								maluyan	maʔiluyan	maluyan	nlyauka	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	nlyauʔniga	khaʔyau
	3p								magluyau		magluyau	magluyauʔni	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	gkhaʔyau
	3d								magluyauʔni		magluyauʔni	magluyauʔni	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	gkhaʔyauʔni
									magluyauʔni		magluyauʔni	magluyauʔni	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	gkhaʔyauʔni
									magluyauʔni		magluyauʔni	magluyauʔni	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	gkhaʔyauʔni
									magluyauʔni		magluyauʔni	magluyauʔni	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	magluyauʔniga	gkhaʔyauʔni

Table A.7. Non-Past Imperfective

	Undergoer										Intransitive
	1s	1s.excl.	1s.incl	2s	2p	2d	3s	3ns			
1s				<i>luhetna</i> <i>nluhetnan</i>	<i>luhetnani</i> <i>nluhetnanin</i>	<i>luhetnachi</i> <i>nluhetnanchin</i>	<i>luhetnuy</i> <i>nluhetnuy</i>	<i>luhettuychuy</i> <i>nluhetnuychuy</i>	<i>khatdhetna</i> <i>ɲkhatdhetnuy</i>		
1p.excl.				<i>luhetnachiga</i> <i>nluhetnanchinna</i>			<i>luhettumma</i> <i>nluhetnimma</i>	<i>luhettumchimma</i> <i>nluhetnimchimma</i>	<i>khatdhetnija</i> <i>ɲkhatdhetnina</i>		
1d.excl.							<i>luhetchuya</i> <i>nluhetchunna</i>		<i>khatdhetchija</i> <i>ɲkhatdhetchinna</i>		
1p.incl.							<i>luhettum</i> <i>nluhetnim</i>	<i>luhettumchim</i> <i>nluhetnimchim</i>	<i>khatdhetti</i> <i>ɲkhatdhettin</i>		
1d.incl.							<i>luhetchu</i> <i>nluhetchun</i>		<i>khatdhetchi</i> <i>ɲkhatdhetchin</i>		
A											
C											
t	<i>kaluhetka</i>	<i>maʔiluhetka</i>					<i>luhettuga</i> <i>nluhettuga</i>	<i>luhettuchiga</i> <i>nluhettunchiga</i>	<i>khatdhetka</i> <i>ɲkhatdhetniga</i>		
O	<i>kaluhettiga</i>	<i>maʔiluhettiga</i>					<i>luhettumga</i> <i>nluhettumga</i>	<i>luhettumchimga</i> <i>nluhetnimchimga</i>	<i>khatdhettiga</i> <i>ɲkhatdhettinga</i>		
r	<i>kaluhetchiga</i>	<i>maʔiluhetchiga</i>					<i>luhetchuga</i> <i>nluhetchunga</i>		<i>khatdhetchiga</i> <i>ɲkhatdhetchinga</i>		
2s	<i>maʔiluhet</i>	<i>maʔiluhet</i>	<i>kaluhet</i>	<i>nluhetka</i> <i>nluhetniga</i>	<i>luhettiga</i> <i>nluhettinga</i>	<i>luhetchiga</i> <i>nluhetchinga</i>	<i>luhettu</i> <i>nluhettun</i>	<i>luhettuchi</i> <i>nluhettunchin</i>	<i>khatdhet</i> <i>ɲkhatdhetni</i>		
2p	<i>maʔiluhet</i>	<i>maʔiluhet</i>	<i>kaɲluhet</i> <i>kaɲluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maɲluhet</i> <i>maɲluhetni</i>	<i>luhettuchi</i> <i>maɲluhettunchin</i>	<i>ɲkhatdhet</i> <i>miɲkhatdhetni</i>		
2p	<i>maʔiluhet</i>	<i>maʔiluhet</i>	<i>kaɲluhet</i> <i>kaɲluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maɲluhet</i> <i>maɲluhetni</i>	<i>luhettuchi</i> <i>maɲluhettunchin</i>	<i>ɲkhatdhet</i> <i>miɲkhatdhetni</i>		
2d	<i>maʔiluhet</i>	<i>maʔiluhet</i>	<i>kaɲluhet</i> <i>kaɲluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maɲluhet</i> <i>maɲluhetni</i>	<i>luhettuchi</i> <i>maɲluhettunchin</i>	<i>ɲkhatdhet</i> <i>miɲkhatdhetni</i>		
3s	<i>maʔiluhet</i>	<i>maʔiluhet</i>	<i>kaɲluhet</i> <i>kaɲluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maɲluhet</i> <i>maɲluhetni</i>	<i>luhettuchi</i> <i>maɲluhettunchin</i>	<i>ɲkhatdhet</i> <i>miɲkhatdhetni</i>		
3p	<i>maʔiluhet</i>	<i>maʔiluhet</i>	<i>kaɲluhet</i> <i>kaɲluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maɲluhet</i> <i>maɲluhetni</i>	<i>luhettuchi</i> <i>maɲluhettunchin</i>	<i>ɲkhatdhet</i> <i>miɲkhatdhetni</i>		
3d	<i>maʔiluhet</i>	<i>maʔiluhet</i>	<i>kaɲluhet</i> <i>kaɲluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maʔiluhet</i> <i>maʔiluhetni</i>	<i>maɲluhet</i> <i>maɲluhetni</i>	<i>luhettuchi</i> <i>maɲluhettunchin</i>	<i>ɲkhatdhet</i> <i>miɲkhatdhetni</i>		

Table A.8: Temporary

	Undergoer						Intransitive		
	1s	Ins. excl.	Ins. incl.	2s	2p	2d		3s	3ms
1s				<i>lurhena</i>	<i>lurhenani</i>	<i>lurhenachi</i>	<i>lurhey</i>	<i>lurheyching</i>	<i>kharega</i>
1p. excl.				<i>nluatnan</i>	<i>nluatnani</i>	<i>lurhenachiga</i>	<i>nluatnanchinna</i>	<i>nluatnig</i>	<i>nluatnigching</i>
1d. excl.						<i>lurhemma</i>	<i>lurhemchimma</i>	<i>qkhardattinna</i>	
1p. incl.						<i>nluatnanna</i>	<i>nluatnanchinna</i>	<i>kharechiga</i>	
1d. incl.						<i>lurhechuga</i>	<i>nluatnunchinna</i>	<i>qkhardatchinna</i>	
A t o r	<i>kalurhega</i>	<i>ma?lurhega</i>				<i>lurhem</i>	<i>lurhemchin</i>	<i>kharei</i>	
	<i>kaluatniga</i>	<i>ma?luatniga</i>				<i>nluatnina</i>	<i>nluatninchim</i>	<i>qkhardattin</i>	
2s	<i>kalurheiga</i>	<i>ma?lurheiga</i>				<i>lurhechu</i>		<i>kharechi</i>	
2p	<i>kaluattinga</i>	<i>ma?luattinga</i>				<i>nluatnun</i>		<i>qkhardatchin</i>	
2d	<i>kalurhechiga</i>	<i>ma?lurhechiga</i>				<i>lurhega</i>	<i>lurhechiga</i>	<i>kharega</i>	
	<i>kaluatniga</i>	<i>ma?luatniga</i>				<i>nluatnuga</i>	<i>nluatnunchinga</i>	<i>qkhardatniga</i>	
3s	<i>kalurhechiga</i>	<i>ma?lurhechiga</i>				<i>nluatniga</i>	<i>nluatninchinga</i>	<i>khareiga</i>	
	<i>kaluatchinga</i>	<i>ma?luatchinga</i>				<i>lurhechuga</i>		<i>kharechiga</i>	
3p	<i>kalurhe</i>	<i>ma?lurhe</i>	<i>kalurhe</i>	<i>nlurhega</i>	<i>nlurhechiga</i>	<i>nlatchunga</i>	<i>lurhechi</i>	<i>khare</i>	
	<i>ma?luatni</i>		<i>kaluatni</i>	<i>nluatniga</i>	<i>nluatnunchinga</i>		<i>nlurhechi</i>	<i>qkhardatni</i>	
3d	<i>ma?lurhechi</i>	<i>ma?lurhechi</i>	<i>kaplurhe</i>	<i>nlurheiga</i>	<i>nlurhechiga</i>	<i>nlurbe</i>	<i>nlurhechi</i>	<i>qkharere</i>	
	<i>ma?luatchin</i>	<i>ma?luatchin</i>	<i>kapluatni</i>	<i>nluattinga</i>	<i>nluatnunchinga</i>	<i>minluatnun</i>	<i>minluatnunchin</i>	<i>minqkhardatni</i>	
	<i>ma?luatchin</i>	<i>ma?luatchin</i>	<i>kapluatchin</i>			<i>minluatnunchin</i>		<i>minqkhardatchin</i>	

Table A.9: Simple Past

		Undergoer					Intransitive		
		1s	1ns.excl.	1ns.incl.	2s	2p	2d	3s	3ns
1s					<i>luyakthena</i> <i>nluyaatanan</i>	<i>luyakthenani</i> <i>nluyaatananin</i>	<i>luyakthenachi</i> <i>nluyaatananchin</i>	<i>luyakthen</i> <i>nluyaatin</i>	<i>luyakthenchij</i> <i>nluyaatinchij</i>
1p.excl.					<i>luyakthenachija</i> <i>nluyaatananchinna</i>			<i>luyakthemma</i> <i>nluyaatinmma</i>	<i>luyakthemchimma</i> <i>nluyaatinchimma</i>
1d.excl.								<i>luyakthechuga</i> <i>nluyakthechunna</i>	<i>kha?yakthechija</i> <i>ηkha?yaatchinna</i>
1p.incl.								<i>luyakthem</i> <i>nluyaatinm</i>	<i>luyakthemchim</i> <i>nluyaatinmchim</i>
1d.incl.								<i>luyakthechu</i> <i>nluyaatchun</i>	<i>kha?yakthechi</i> <i>ηkha?yaatchin</i>
A									
C									
t									
O									
I									
2s		<i>kaluyakthega</i> <i>kaluyaatinga</i>	<i>ma?iluyakthega</i> <i>ma?iluyaatinga</i>					<i>luyakthega</i> <i>nluyaatinga</i>	<i>luyakthechiga</i> <i>nluyaattunchinga</i>
2p		<i>kaluyaktheiga</i> <i>kaluyaatinga</i>	<i>ma?iluyaktheiga</i> <i>ma?iluyaatinga</i>					<i>luyakthemga</i> <i>nluyaatinnga</i>	<i>luyakthemchimga</i> <i>nluyaatinchimnga</i>
2d		<i>kaluyakthechiga</i> <i>kaluyaatchinga</i>	<i>ma?iluyakthechiga</i> <i>ma?iluyaatchinga</i>					<i>luyakthechuga</i> <i>nluyaatchunga</i>	<i>kha?yakthechiga</i> <i>ηkha?yaatchinga</i>
3s		<i>mailuyakthe</i> <i>mailuyaatni</i>	<i>ma?iluyakthe</i> <i>ma?iluyaatni</i>	<i>kaluyakthe</i> <i>kaluyaatni</i>	<i>nluyakthega</i> <i>nluyaatinga</i>	<i>nluyaktheiga</i> <i>nluyaatinga</i>	<i>nluyakthechiga</i> <i>nluyaatchinga</i>	<i>luyakthe</i> <i>nluyaattun</i>	<i>luyakthechi</i> <i>nluyaattunchin</i>
3p		<i>maḡluyakthe</i> <i>maḡluyaatni</i>	<i>ma?iluyakthe</i> <i>ma?iluyaatni</i>	<i>kaḡluyakthe</i> <i>kaḡluyaatni</i>				<i>nluyakthe</i> <i>minluyaattun</i>	<i>nluyakthechi</i> <i>minluyaattunchin</i>
3d		<i>maḡluyakthechi</i> <i>maḡluyaatchin</i>	<i>ma?iluyakthechi</i> <i>ma?iluyaatchin</i>	<i>kaḡluyakthechi</i> <i>kaḡluyaatchin</i>				<i>nluyakthechu</i> <i>minluyaatchun</i>	<i>miḡkha?yakthechi</i> <i>miḡkha?yaatchin</i>

Table A.10: Past Imperfective

A c t o r	Undergoer										Intransitive																																																						
	1s		1s.excl.		1s.incl		2s		2p			2d		3s		3ns																																																	
	1s	1s.excl.	1s.incl	2s	2p	2d	3s	3ns	3s	3ns		3s	3ns	3s	3ns	3s	3ns																																																
1s																																																																	
1p.excl.																																																																	
1d.excl.																																																																	
1p.incl.																																																																	
1d.incl																																																																	
2s																																																																	
2p																																																																	
2d																																																																	
3s																																																																	
3p																																																																	
3d																																																																	
kalurak-																	maʔilurak-				lurana-		luranani-		luranachi-		luruy-		luruychingya		kharay-																																		
kalurik-																	maʔilurik-				luranachiy-						lurumma-		lurumchimma-		kharay-																																		
kalurachik-																	maʔilurachik-										luraychuy-				kharaychuy-																																		
malura-																	maʔilura-										lurum-		lurumchin-		khar-																																		
majlura-												luruk-		luruchik-		kharachik-																																																	
majlurachi-		maʔilurachi-										lurumgak-		lurumchinggak-		kharik-																																																	
												lurachuygak-				kharachik-																																																	
												luru-		luruchi-		khar-																																																	
												luru-		luruchi-		qkhar-																																																	
												kaplura-				qkharara-																																																	
												kaplurachi-				qkhararachi																																																	

Table A.11: Past Subjunctive (The negative forms are identical with the Simple Past Negative in Table A.9)



		Undergoer						3s		3ns		Intransitive
1s	1s.excl.	1s.incl.	2s	2p	2d	3s	3ns					
1s			<i>luisena</i> <i>nluipatan</i>	<i>luisenani</i> <i>nluipatananin</i>	<i>luisenachi</i> <i>nluipatananchin</i>	<i>luisen</i> <i>nluipatinim</i>	<i>luisem</i> <i>nluipatinimchim</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>khaijei</i> <i>ηkhaijatchin</i>	<i>khaijei</i> <i>ηkhaijatchin</i>	
1p.excl.				<i>luisenachiga</i> <i>nluipatananchinna</i>		<i>luisem</i> <i>nluipatinim</i>	<i>luisemchim</i> <i>nluipatinimchim</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>khaijei</i> <i>ηkhaijatchin</i>	<i>khaijei</i> <i>ηkhaijatchin</i>	
1d.excl.						<i>luisem</i> <i>nluipatinim</i>	<i>luisemchim</i> <i>nluipatinimchim</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	
1p.incl.						<i>luisem</i> <i>nluipatinim</i>	<i>luisemchim</i> <i>nluipatinimchim</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	
1d.incl.						<i>luisem</i> <i>nluipatinim</i>	<i>luisemchim</i> <i>nluipatinimchim</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	
2s	<i>kaluiseiga</i> <i>kaluijatchinga</i>	<i>ma?iluiseiga</i> <i>ma?iluipatchinga</i>				<i>luisem</i> <i>nluipatinim</i>	<i>luisemchim</i> <i>nluipatinimchim</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	
2p	<i>kaluiseiga</i> <i>kaluijatchinga</i>	<i>ma?iluiseiga</i> <i>ma?iluipatchinga</i>				<i>luisem</i> <i>nluipatinim</i>	<i>luisemchim</i> <i>nluipatinimchim</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	
2d	<i>kaluisechiga</i> <i>kaluijatchinga</i>	<i>ma?iluisechiga</i> <i>ma?iluipatchinga</i>				<i>luisem</i> <i>nluipatinim</i>	<i>luisemchim</i> <i>nluipatinimchim</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	
3s	<i>mailuise</i> <i>mailuijatchin</i>	<i>ma?iluise</i> <i>ma?iluipatchin</i>	<i>kaluise</i> <i>kaluijatchin</i>	<i>nluiseiga</i> <i>nluipatchinga</i>	<i>nluisechiga</i> <i>nluipatchinga</i>	<i>luisem</i> <i>nluipatinim</i>	<i>luisemchim</i> <i>nluipatinimchim</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	
3p	<i>mapluise</i> <i>mapluipatchin</i>	<i>ma?iluise</i> <i>ma?iluipatchin</i>	<i>kapluise</i> <i>kapluipatchin</i>	<i>nluiseiga</i> <i>nluipatchinga</i>	<i>nluisechiga</i> <i>nluipatchinga</i>	<i>luisem</i> <i>nluipatinim</i>	<i>luisemchim</i> <i>nluipatinimchim</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	
3d	<i>mapluisechi</i> <i>mapluipatchin</i>	<i>ma?iluisechi</i> <i>ma?iluipatchin</i>	<i>kapluisechi</i> <i>kapluipatchin</i>	<i>nluiseiga</i> <i>nluipatchinga</i>	<i>nluisechiga</i> <i>nluipatchinga</i>	<i>luisem</i> <i>nluipatinim</i>	<i>luisemchim</i> <i>nluipatinimchim</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>luisemchim</i> <i>nluipatinimchimma</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	<i>khaijechi</i> <i>ηkhaijatchin</i>	

Table A.12. R-Perfect

A  
C  
t  
O  
r

	Undergoer							
	1s	Ins excl.	Ins incl	2s	2p	2d	3s	3ns
1s				<i>luisana</i>	<i>luisananiha</i>	<i>luisanachihia</i>	<i>luisuggha</i>	<i>luisugghiggha</i>
				<i>nluiatananaha</i>	<i>nluiatananinaha</i>	<i>nluiatananchimaha</i>	<i>nluiatiniggha</i>	<i>nluiatiniggha</i>
1pe				<i>luisanachiggha</i>		<i>nluiatinanachimaha</i>	<i>luisummaha</i>	<i>luisumchimmaha</i>
				<i>nluiatananchimaha</i>		<i>nluiatinimaha</i> <sup>1</sup>	<i>nluiatinimchimmaha</i>	
1de				<i>luisagghuggha</i>	<i>nluiagghumaha</i>	<i>luisummaha</i>	<i>luisumchimmaha</i>	
				<i>nluiagghumaha</i>	<i>nluiagghumaha</i>	<i>luisummaha</i>	<i>nluiagghumaha</i>	
Ipi				<i>luisumaha</i>	<i>nluiagghumaha</i>	<i>luisummaha</i>	<i>luisumchimmaha</i>	
				<i>nluiagghumaha</i>	<i>nluiagghumaha</i>	<i>luisummaha</i>	<i>nluiagghumaha</i>	
Idi				<i>luisachuha</i>	<i>nluiagghumaha</i>	<i>luisachukka</i>	<i>nluiagghumaha</i>	
				<i>nluiagghumaha</i>	<i>nluiagghumaha</i>	<i>luisachukka</i>	<i>nluiagghumaha</i>	
A				<i>luisakkha</i>	<i>nluiagghumaha</i>	<i>luisuchukka</i>	<i>nluiagghumaha</i>	
				<i>nluiagghumaha</i>	<i>nluiagghumaha</i>	<i>luisuchukka</i>	<i>nluiagghumaha</i>	
2s	<i>kaluisakkha</i>	<i>ma?luisakkha</i>	<i>kaluisaha</i>	<i>nluisakkha</i>	<i>nluisikkha</i>	<i>nluisachikkha</i>	<i>luisuchukka</i>	
2o	<i>kaluiatan(ga)kkha</i> <sup>2</sup>	<i>ma?luiatan(ga)kkha</i>	<i>kaluiatan(ga)kkha</i>	<i>nluiatan(ga)kkha</i>	<i>nluiatan(ga)kkha</i>	<i>nluiatan(ga)kkha</i>	<i>nluiatan(ga)kkha</i>	
2p	<i>kaluisikkha</i>	<i>ma?luisikkha</i>	<i>kaluisikkha</i>	<i>nluisikkha</i>	<i>nluisikkha</i>	<i>nluisikkha</i>	<i>nluisikkha</i>	
2d	<i>kaluiattingakkha</i>	<i>ma?luiattingakkha</i>	<i>kaluiattingakkha</i>	<i>nluiattingakkha</i>	<i>nluiattingakkha</i>	<i>nluiattingakkha</i>	<i>nluiattingakkha</i>	
	<i>kaluisachikkha</i>	<i>ma?luisachikkha</i>	<i>kaluisachikkha</i>	<i>nluisachikkha</i>	<i>nluisachikkha</i>	<i>nluisachikkha</i>	<i>nluisachikkha</i>	
	<i>kaluiatcingakkha</i>	<i>ma?luiatcingakkha</i>	<i>kaluiatcingakkha</i>	<i>nluiatcingakkha</i>	<i>nluiatcingakkha</i>	<i>nluiatcingakkha</i>	<i>nluiatcingakkha</i>	
3s	<i>maluisaha</i>	<i>ma?luisaha</i>	<i>maluisaha</i>	<i>nluisaha</i>	<i>nluisaha</i>	<i>nluisaha</i>	<i>nluisaha</i>	
	<i>maluiatanaha</i>	<i>ma?luiatanaha</i>	<i>maluiatanaha</i>	<i>nluiatanaha</i>	<i>nluiatanaha</i>	<i>nluiatanaha</i>	<i>nluiatanaha</i>	
	<i>maluisaha</i>		<i>kagluisaha</i>	<i>nluisaha</i>	<i>nluisaha</i>	<i>nluisaha</i>	<i>nluisaha</i>	
	<i>maluiatanaha</i>		<i>kagluiatanaha</i>	<i>nluiatanaha</i>	<i>nluiatanaha</i>	<i>nluiatanaha</i>	<i>nluiatanaha</i>	
3p	<i>maluisachihia</i>	<i>ma?luisachihia</i>	<i>maluisachihia</i>	<i>nluisachihia</i>	<i>nluisachihia</i>	<i>nluisachihia</i>	<i>nluisachihia</i>	
	<i>maluiatanchinnaha</i>	<i>ma?luiatanchinnaha</i>	<i>maluiatanchinnaha</i>	<i>nluiatanchinnaha</i>	<i>nluiatanchinnaha</i>	<i>nluiatanchinnaha</i>	<i>nluiatanchinnaha</i>	
3d	<i>maluiatanchinnaha</i>	<i>ma?luiatanchinnaha</i>	<i>maluiatanchinnaha</i>	<i>nluiatanchinnaha</i>	<i>nluiatanchinnaha</i>	<i>nluiatanchinnaha</i>	<i>nluiatanchinnaha</i>	

Table A.13: Perfect Transitive

<sup>1</sup> The distinction between exclusive *nluiatanimaha* 'We haven't told him' and inclusive *nluiataninaha* 'We haven't told him' is often inaudible in connected speech.  
<sup>2</sup> The shorter forms are more common.

Intransitive	
1s	<i>khaiyaypha</i> <i>ḡkhaiyatniypha</i>
1p.excl.	<i>khaiyiypha</i> <i>ḡkhaiyatninnaha</i>
1d.excl.	<i>khaiyaychinypha</i> <i>ḡkhaiyatchinna</i>
1p.incl.	<i>khaiyiha</i> <i>ḡkhaiyatninnha</i>
1d.incl.	<i>khaiyachiha</i> <i>ḡkhaiyatchinna</i>
2s	<i>khaiyakkha</i> <i>ḡkhaiyatni(ga)kkha</i>
2p	<i>khaiyikkha</i> <i>ḡkaiyattingakkha</i>
2d	<i>khaiyachikkha</i> <i>ḡkhaiyatchingakkha</i>
3s	<i>khaiyaha</i> <i>ḡkhaiyatniha</i>
3p	<i>ḡkhaiyaha</i> <i>minḡkhaiyatniha</i>
3d	<i>ḡkhaiyachiha</i> <i>minḡkhaiyatchinna</i>

Table A.14 Perfect Intransitive



## Appendix B: Orthography, Glosses, and Abbreviations

### B.1 A note on the orthography

Two orthographies were developed in Belhārā, one in *devānāgarī* and one in Roman script. In the present work, only the Roman script is used for Belhare. This orthography attempts to steer a middle course between phonetic and phonological faithfulness, but also reflects some Himalayanist traditions. The following gives an overview of the most important points to bear in mind when looking at word forms in the practical orthography. For a discussion of the regularities involved, see Chapter 3.

- Epenthetic glides and epenthetic onsets are all written, except for word-initial [ʔ].
- Voicing is written, both if underlying or if derived by Cyclic Voicing.\*
- /t/ before /y/ is written in its dissimilated form [ʔ].\*
- Underlying word-final consonants are not written if they are deleted post-lexically.
- <c> and <j> stand for /ts/ and /dʒ/, <y> represents a palatal glide.
- <h> after consonant indicates a spread glottis, i.e., aspiration after voiceless and breathiness after voiced consonants.
- A comma indicates an intonation break.
- The exclamation mark signals a rising intonation, characteristic of interjections.
- ‘...’ indicates a pause, with the number of dots imitating its duration.

Nepali is transliterated according to indological tradition, except that, following van Driem (J, 1987 #251), mute *a* is not represented. In toponyms where this leads to ambiguity, the word is also given in the native *devānāgarī* script

### B.2 Morpheme boundaries and glossing conventions

Morpheme boundaries are indicated by a hyphen and are placed so as to preserve a uniform appearance of suffixes, often in disagreement with prosodic word boundaries and syllable/morpheme alignment, e.g., <phak n-cept-he> ‘pig 3A-cut-PT’ rather than

---

\* This convention was not always observed in earlier publications.

<phaŋ cept-he> and <rakg-e> ‘interior-LOC’ rather than <rak-ge>. Morphemes deleted by phonological rules are not glossed except if they leave some overt trace, e.g., by triggering a stem alternation as in <tai-ka> ‘come:NPT-2’ from {ta-t-ka} ‘come-NPT-2’.

Brackets and slashes are used according to the following conventions:

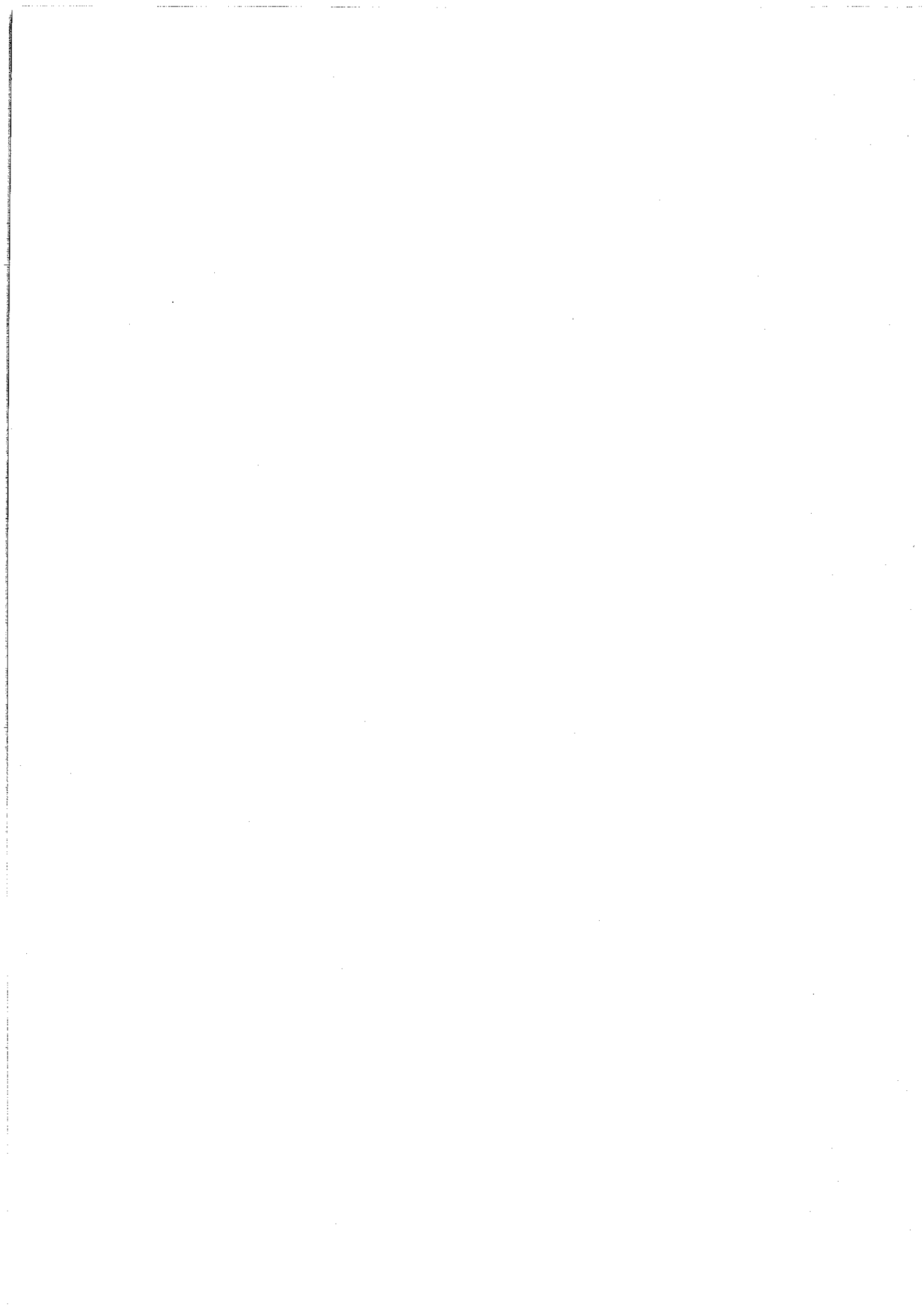
- { } indicates a morphological representation
- / / indicates a phonological representation
- < > indicates orthographic representations or example references
- [ ] indicates a phonetic or semantic representation or encloses material inserted in a translation because of English grammar and style (e.g., *khare* ‘[s/he] went’)
- ( ) encloses explanatory context descriptions in the translation and optional elements.

Acceptability judgements are marked by an asteriks (\*) if the expression is perceived as ungrammatical, and by a raised number sign (#) if the expression is considered to be merely odd, i.e., logically or pragmatically strange. Typically, consultants would react to ungrammatical strings by saying *tupmana tuptum, tarA nton?ni* ‘as for understanding, one understands it, but it’s wrong’. Logically or pragmatically ill-formed expression, by contrast, are usually not understood at all or are found to be silly or strange in content.

### B.3 Abbreviations

A	Actor	CONF	Confirmative
ABL	Ablative	CONTR	Contrastive
ACC	Accusative	d	Dual
ACCEL	Accelerative Aktionsart Modifier	DAT	Dative
ADD	Additive (‘also, even’)	DEF	Definitive
ART	Article	DEM	Demonstrative
ASS	Assertive	n.dim	n-Dimensionally Extended
AUG	Augment	DIR	Directive
AUX	Auxiliary	DISC	Discovery Particle
BEN	Benefective	DIST	Distal
CEXP	Counter-expectative	DISTR	Distributive
CIT	Citation Form	e	Exclusive of Addressee
COL.ART	Colour Term Article	EMPH	Emphatic
COM	Comitative	EXIG	Exigency Particle
COMP	Comparative Marker	EXT	Extended

F	Feminine	p	Plural
GEN	Genitive	PERF	Perfect
HUM	Human	PFV	Perfective
i	Inclusive of Addressee	POSS	Possessive
ID	Identifier	PRES	Present
IDEOPH	Ideophone	PROHIB	Prohibitive
IGNOR	Ignorance Particle	PT	Past
IMP	Imperative	PTCL	Particle
INC	Inceptive	Q	Interrogative
INCONS	Inconsequential	RECIPR	Reciprocal Marker
INIT	Discourse Initial Particle	RED	Reduplicated Syllable
INSTR	Instrumental	RELINQ	Relinquitative Aktionsart Modifier
INT	Integrator of Loan Roots	REP	Report Marker
INTERJ	Interjection	RESTR	Restrictive ('only')
INTR	Intransitive	RESUM	Discourse Resumption Particle
IPFV	Imperfective	RH	Rhetorical Question Marker
IRR	Irrealis	RP	R-Perfect
LDEM	Local Demonstrative	ROM	Restricted Oriented Motion Verb
M	Masculine	s	Singular
MAX	Maximally Extended	S	Single Argument of Intransitives
MDEM	Modal Demonstrative	SDA	Spatially Distributed Aktionsart Modifier
MED	Mediative ('via, through, from, in the medium of')	SDT	Spatially Distributed Temporary Aspect
MIN	Minimally Extended	SEQ	Sequential
N	Nominality Marker	SS/T	Same Subject and Tense Marker
NEG	Negative	SUBJ	Subjunctive
NEUT	Neuter	SUBJ.N	Subject Nominaliser ('one who V')
NHUM	Non-human	SUP	Supine
NOM	Nominative	TEL	Telic
NPT	Non-past	TEMP	Temporary Aspect
ns	Non-singular	TOP	Topic Marker
OBL	Oblique Case	TR	Transitive
OBV	Obviously	TRANSP	Transposed Deictic Origin Marker
OK	'Okay' Signaling Particle	U	Undergoer
OPT	Optative	1>2	First Pers. Acting on Second Pers.
ORIG	Origin Marker ('from')		





## Appendix C:

### Subject Index

- ability, potentiality.....144  
 accomplishment..... 18, 195, 232ff  
 achievement .....18, 37f, 195, 232ff  
 activity..... 18, 35f, 118, 195 – 99,  
 210, 227f, 236  
 actional density.....119  
 adhortative .....100  
 adverbial time specification ..... 38, 44, 105,  
 114–17, 123, 142, 146, 157, 160, 169, 176,  
 179, 182, 230, 239  
 Aktionsart modifiers .....52, 75, 79f, 166 – 69  
 allegro (and casual) speech forms.....59, 76, 88  
 aspectiviser ..... see 'Aktionsart modifiers'  
 assertion scope.....197
- BECOME.....198
- CAUSE.....197  
 citation form .....53, 83, 110f, 124, 147f  
 clitics.....52, 56, 76  
 complement clauses.....52, 93ff, 151ff  
 Conceptual Semantics..... 19f, 196 – 99  
 consecutivisation..... see 'sequential taxis'  
 copula.....172, 212  
 Czech..... 39, 159, 248
- denotative function (*obščefaktičeskoe  
 značenie*) ..... Ch. 2.4, 152f  
 deontic requests ..... 99f  
 Discourse Representation Theory.....197, 233  
 Dutch.....163  
 dynamic..... 46, 109, 118, 126, 227
- English ..... 141, 180, 236, Ch. 2  
 'environmental space' category.....131  
 etymology of the  
 imperfective ..... 79  
 inceptive.....139  
 perfect and r-perfect.....172f  
 SDT .....166  
 evidentiality ..... see 'recent discovery'  
 experience expressions.151, 186, 209, 214, 217  
 event realisation .....197  
 extension, verbs of .....212
- final-transformative.....195ff  
 focus constructions...50, 94, 96, 151, 171, 175  
 French..... 16, 45, 249  
 futurate.....221
- future..... 88, 114f, 122 – 25,  
 142, 145f, 163f, 220f
- generic .....39, 98, 104, 156, 161f, 186  
 German ..... see 'Swiss German'  
 gradually terminative.....195ff  
 grammaticalisation ..... 46, 107, 140  
 Greek (Ancient).....38, 50, 88, 202, 230
- habitual.....35, 44, 130 – 33, Ch. 7.3  
 Hua .....189
- imperative.....52f, 75, 83, 102, 110, 124  
 'imperious future'.....103  
 inceptively static..... 18, 38  
 inchoative..... 20, 118, 197, 211f, Ch. 12.5  
 infinitive ..... see 'citation form'  
 ingressive ..... 18, 37f, 142, 154  
 ingressive-phasal..... 49, 115, 142,  
 154, 175, 178, 201, 205, Ch. 12.3  
 initio-transformatives..... 38  
*Inzidenzschema* ('scheme of inclusion of an  
 incident') ..... 48f, 107, 120, 121, 122, 149
- Lahu..... 50  
 Limbu..... 50, 103, 139, 163, 166, 225  
 Lithuanian .....180
- Mongolian .....180  
 motion verbs.....131, 165, 198, 240, 209,  
 218, 246
- narratives..... see 'sequential taxis'  
 negative polarity items..... 84  
 Nepali..... 22, 54, 83, 88, 104, 107, 121,  
 160, 187, 190, 225f  
 Newar (*Nepāl bhāṣā*) ..... 50  
 nominalisation..... 12, 50, 151, 171, 175  
 also see 'complement clauses', 'relative  
 clauses', and 'focus constructions'  
 'Now' Principle .....125, 145f, 153, 167
- optative mood..... 52, 86f, 109f
- perfective.....Ch. 2, Ch. 7.1, 105f, 125, 159f,  
 199 – 205, 215, 239f, 248
- person.....99 – 101  
 PL.....199  
 posture, verbs of .....212

possibility.....	99
<i>praesens historicum</i> .....	109, 121
<i>praeterito-praesens</i> .....	214
<i>also see</i> 'ingressive-phasal'	
progressive .....	108, 133ff, 197f, 245, Ch. 2
punctual.....	18f, 199f, 204, Ch. 12
quantifiers.....	33, 226f, 249
quotation.....	128
recent discovery (marking of).....	187, 231f
relative clauses .....	93ff, 151ff, 171
reported speech .....	102
restrictive focus particle.....	102
Role and Reference Grammar.....	19f, 196
Russian.....	85f, 194, 200f, 218, 248, Ch. 2
scheduled events.....	221
sequential taxis in narratives.....	44, 50, 38, 96, 98, 105, 120, 141, 146f, 157, 204, 220
Spanish.....	38, 175, 201, 204
static .....	34, 109, 126, 141, 153f, 197, 209
subordinate clauses.....	92, 121, 151, 171
Swiss German.....	33, 197, 218
telic.....	118, 169, 195, 196, 249
temporal tier ...	196 – 98, 202f, 230, 239f, 243f
Thai .....	225
thinking and speaking, verbs of .....	151
topic marking.....	85ff, 121
<i>also see</i> 'subordinate clauses'	
totally terminative.....	18, 195, 200
transitivity and diathesis.....	170, 210f
truth conditional effects.....	16, 195, 214, 233, Ch. 6, Ch. 13.2
Turkish.....	88, 143, 201, 216f, 249, Ch. 2
underspecification, lexical.....	225
Uto-Aztecan.....	88
valence restrictions.....	226
warning (illocutionary force) .....	100, 104

## Appendix D:

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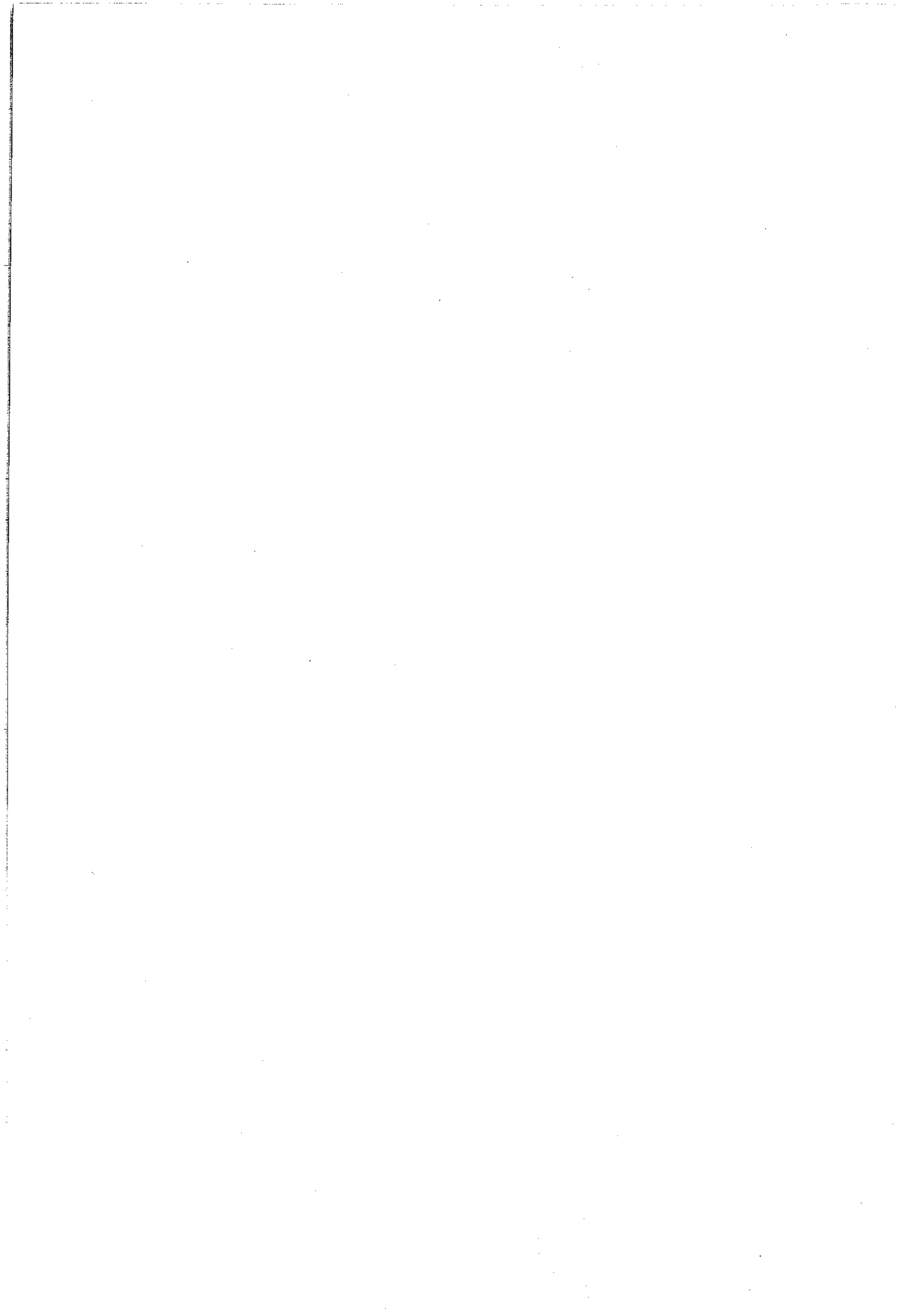


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