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Introduction: Beginning the Journey

Athapaskan languages are often thought of as the ultimate challenge by linguists interested in issues of morphosyntax, and linguists working on these languages are alternately admired and pitied. The languages have notoriously complex verb morphology, with the verb typically described as consisting of a stem and a number of prefixes, both inflectional and derivational, whose ordering is unpredictable and must be stipulated through the use of position class morphology, or a template. In addition, phonological patterning in the verb is typically also considered to be unpredictable, and some type of boundary information is built into the template. It often appears as if any generalization that one draws about morphosyntax is falsified by the verb of some Athapaskan language. As a result, the bulk of work on Athapaskan languages has taken as its primary concern aspects of verb morphology. This book represents yet another contribution to that area. It concerns a topic that has garnered much attention in Athapaskan languages, the ordering of morphemes within the verb. My contribution, as I discuss in this chapter, is to question the notion of a template as a word formation device. Instead, I propose that morpheme ordering is to a large degree regulated by principles of scope.

Consider first some of the oddities exhibited by a verb of the description in the last paragraph. First, template morphology is highly marked in languages of the world (see, for example, Myers 1987, Rice 1991, 1993, Speas 1984, 1987, 1990, 1991a,b, and, from a somewhat different perspective, Baker 1988, 1996). As pointed out by Myers 1987, if template morphology is required, then three types of morphological systems exist – concatenative systems, nonconcatenative systems, and templatic systems – with the last restricted to only a very few language families.

Second, Athapaskan languages have been claimed to exhibit particularly extreme templates. For example, it is generally observed that inflection stands

outside of derivation rather than inside of or interspersed with derivation (e.g., Anderson 1982, 1988, Beard 1995, Bybee 1985a). In the verb of Athapaskan languages, however, inflectional morphemes are, on the surface, interleaved with derivational morphemes.

Third, it is generally claimed that within morphological systems dependencies are strictly local (e.g., Allen 1978, Lieber 1980, Siegel 1978), with morphological subcategorization frames referring only to adjacent elements. Athapaskan languages are rife with discontinuous dependencies between morphemes within the verb.

Fourth, languages tend to exhibit some functional unity in positioning morphemes with respect to each other. Athapaskan languages do not appear to exhibit such unity. For instance, subjects can be marked in more than one position in the verb, aspect is indicated in more than one position of the verb, and a position can house material of disparate functions.

The Athapaskan verb thus appears to counterexemplify many claims that have been made about universal properties of language. It is therefore a worthy, and formidable, object of study. In this book I examine the verb of Athapaskan languages anew, trying to show that the deeper understanding of the Athapaskan verb that has been achieved over the past few years through detailed studies of several of the languages leads us to a very different conception of the verb than that traditionally held.

Before turning to the verb, I would like to justify some of the decisions that underlie the focus of this book. First is the decision to look beyond a template as a mechanism for accounting for word formation in Athapaskan languages. A template, as discussed in the Athapaskan literature (see Kari 1989 for the most complete and in-depth justification of templates; see chapter 2 for discussion), is a surface mechanism that orders the morphemes of the verb. In Kari's view, the template is independent of word formation; he argues that word formation follows principles of universal grammar, but that word formation is not reflected in the surface ordering of morphemes. Rather, the morphemes are slotted into a template in an order that obscures the word formation processes.

Here I examine briefly a few of the predictions of template morphology. Suppose that morphemes within a word are ordered in a random way, specified by a template. What properties might one expect to find in looking at languages of this morphological type? One potential property is that languages within a family might differ with respect to morpheme order. Since morpheme order is not a consequence of principles but rather of stipulation, one might expect that individual languages would have changed in different ways from their common ancestor. This is in fact a property of some systems.

For example, in studies of clitic ordering in Romance dialects, Auger 1994, Bonet 1991, 1995, Cummins and Roberge 1994, Perlmutter 1971, and others have found that preverbal clitics may occur in different orders in the different languages and across dialects within a language. They argue that the ordering of clitics is not a consequence of syntactic or semantic factors but simply given by a postsyntactic template. The ordering of the clitics provides no clue to structure. Thus, if the ordering of elements within the verb differs randomly from one language to the next, the template analysis is supported. If, on the other hand, regular patterns that crosscut the languages are found, one must question whether the theoretical device of a template is appropriate.

Another property that one might expect to find in a template system is that, for any given language, morpheme ordering is completely fixed, modulo any systematic phonological processes that modify the order. This too is a property of the Romance clitics. While different orderings exist when the language group is examined as a whole, when any individual dialect is studied, ordering is fixed within it. If this kind of ordering is found across the languages within the Athapaskan family, templates would appear to be an appropriate device for accounting for the structure of the verb. If, on the other hand, some variations in ordering are found within an individual language that cannot be attributed to phonological processes, the use of templates must again be questioned.

Languages that exhibit template morphology thus have a set of morphological properties that are distinct from properties of languages that are not best described in such a way. A return to this issue within the Athapaskan language family is in order to see if the languages really are best accounted for by the device of a template.

A second decision is to study a number of Athapaskan languages rather than to focus on a single one. This decision has both positive and negative consequences. The negative ones are obvious – it is hard to do in-depth crosslanguage studies of this sort and do justice to every language examined. However, I believe that the positive consequences outweigh this. It is often difficult to tell from the study of a single language whether a pattern in language is something odd and unusual about that language, or whether it is part of a syndrome. It is only by examining related languages that we can sort out the language-particular idiosyncrasies and the systematic patterns; see, for example, Croft 1990, Hale 1998, and Hale and Platero 1996 for similar arguments. For instance, the fact that all Athapaskan languages show the odd pattern of intermingling what are traditionally considered to be inflectional and derivational morphology leads one to wonder just what it is about these languages that makes this a persistent pattern.

The goal of this book is to examine the Athapaskan language family from two perspectives that I term 'global uniformity' and 'local variability'. Global uniformity refers to the properties that are common across the language family; local variability concerns the ways in which the languages differ. I argue that the languages show a tremendous amount of global uniformity that is due to general principles of grammar. Athapaskan languages also show local variability – the ordering of morphemes within the verb in different languages can differ, and in fact even within a single language some variability is possible. I argue that this variability is principled rather than the random type of variability predicted by the template model. In particular, I argue that there is an overarching principle of scope, or semantic compositionality, that determines the ordering of morphemes within the verb of Athapaskan languages, and that requires morphemes of greater scope to occur in a fixed position with respect to morphemes within their scope. Specifically, in Athapaskan languages morphemes of greater scope appear to the right of morphemes within their scope. Such a principle is not a surprising one – the relationship between morpheme order and scope is one that has often been noted in various theoretical approaches (e.g., Baker 1988, Bybee 1985a, Cherchia and McConnell-Ginet 1990, Foley and van Valin 1984, Frawley 1992, Greenberg 1966, van Valin 1993). This principle accounts for global uniformity: given a universal scope relationship, the morphemes could not be ordered any other way. It also accounts for a certain amount of local variability: in some cases, given two morphemes A and B, either A may occur in the scope of B or, on a different reading, B may occur in the scope of A. In this case too scope is relevant, with variability related to the possibility of differing scopal relations. There are also times when this principle is irrelevant – morphemes may have no scopal relationship to each other. In this case we again find variability across the family and, at times, within a language. Finally, when the scopal principle is examined more carefully, it turns out to encompass a number of different subprinciples that may interact in different ways in different languages, again creating some variability across the family.

The argument that morpheme order in the Athapaskan verb is to a large degree predictable from a principle of scope forms the major thrust of this book. A second, and subsidiary, goal of the book also involves taking a different perspective on the verb, this time with respect to structure. In discussions of the morphology of the verb of Athapaskan languages, it is generally assumed that the verb is formed lexically (e.g., Hargus 1988, Kari 1989, 1992, Randoja 1990) – this is apparent in the very choice of the term 'morphology' to describe the structure of the verb word. But recent work has suggested that this standard assumption may be wrong, and that the verb 'word' is a clause formed in the

syntax (see, for example, Rice 1993, 1998 and Speas 1990). The second goal of the book is therefore to argue for the hypothesis that the Athapaskan verb is a word from a phonological perspective but a phrase from a morphosyntactic perspective. This conception of the verb offers a new way of addressing a number of problems that have occupied Athapaskanists but for which no clear solution has been forthcoming – for instance, the problem of what counts as inflection and what as derivation.

To meet these two goals, I undertake an examination of much of what is assumed about the Athapaskan verb. Major sections are devoted to reanalyses of the position classes posited for the verb. In particular, the functional material in the verb is the object of detailed study.

Before closing this chapter, a brief discussion of the object of study, the Athapaskan language family, is in order. Athapaskan languages are spoken in three geographically discontinuous regions of North America. Northern languages are located in parts of the U.S. state of Alaska, the Canadian Yukon and Northwest Territories, and the Canadian provinces of British Columbia, Alberta, Saskatchewan, and Manitoba. Apachean languages are spoken in the Southwest of the United States, including Arizona, Colorado, New Mexico, and Utah. The Pacific Coast languages are located in the United States in northern California and Oregon. A time depth of 2,000 years separation is posited, with the Pacific Coast group having split off first. See appendix 2 for a list of languages. The languages are similar in verb morphology, with a morphologically rich verb, as will become clear in this book.

This book is organized in four parts as follows. The first part provides a setting. The goals of chapter 2 are twofold. I define template morphology and examine the properties that Athapaskan languages exhibit that have led to the claim that they have template morphology, and I review accounts in the Athapaskan literature of word formation. Chapter 3 sets out the principle of scope. The second part of the book tests the hypothesis that ordering is fixed in the presence of scopal relations and variable in the absence of scopal relations among the lexical morphemes of the verb. The third part extends this hypothesis to the functional items and includes a study of two major functional systems of the verb, the aspectual system and the pronominal system. Each of these parts begins with an overview of the content of the morphemes belonging to the category discussed. The fourth part examines the lexicon and unites the ideas introduced throughout.

We are now ready to begin our journey into the mysteries of the Athapaskan verb. I hope that readers find this journey as exciting, tantalizing, stimulating, sometimes frustrating, but always provocative, as I have.

PART I

FIRST STEPS

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Introducing the Problem

Athapaskan languages have verbs that are extraordinarily complex, and that pose a challenge to theories of morphosyntactic structure (see, for example, Aronoff 1994, Hargus 1988, Rice 1993, 1998, Speas 1984, 1987, 1990, 1991a,b, Spencer 1991, Travis 1992, for discussion). The verb word is complex in many ways: it is morphologically rich, the surface ordering of morphemes is apparently without reason, discontinuous dependencies are frequent, and blocking effects between morphemes of identical shape but different meaning are abundant.

The goal of this chapter is to outline the structure of an Athapaskan verb as traditionally described and to examine the claim that a template is required to define the ordering of morphemes within the verb.

2.1   The Templatic Nature of the Athapaskan Verb

As discussed in chapter 1, the verb in Athapaskan languages is typically described as consisting of a template, or string of fixed order positional classes. The template orders the morphemes, and each morpheme is marked lexically for the position in the template that it occurs in. In addition, phonological boundary types are lexically associated with the different morphemes in order to account for their phonological properties.

A template for Slave ([slevi]), adapted from Rice 1989, is given in (1). See appendix 1 for a list of templates proposed in the literature for a number of languages of the family. Terminology will be clarified throughout the book; I do not attempt to define terms here.

(1)   preverb # quantificational elements # incorporate # object % third person subject % qualifier + subsituation aspect + situation aspect + viewpoint aspect + 1/2 person subject = voice/valence + root + aspect suffix

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Kari 1989 proposes the template in (2) for Ahtna ([atnə]). (This is slightly modified to reflect terminology used in this book; see appendix 1 for Kari's original template.)

(2)   preverb + iterative + distributive + incorporate + thematic # third person plural plus y + direct object + first person plural + indefinite object-subject + y-thematic + third person plural subject = areal qualifier + conative + inceptive + d qualifier + n qualifier + z + gh qualifier % transitional + s perfective-negative + situation aspect + viewpoint aspect + subject [voice/valence + root + suffixes

The template includes morphological information (basic role of morphemes in a position), ordering information, and phonological information (represented by boundary symbols #, %, +, [, and =). Details of the morphology are developed throughout the book.

2.2   Templatic Properties of the Verb

In the rest of this chapter, I examine the properties of templates from two perspectives. First is a study of how the term 'template' has been used in the morphology literature, and second is an examination of the use of the template within the Athapaskan literature.

Spencer 1991 provides a detailed discussion of the properties of languages with verbs characterized by template or position class morphology. As he says, "What is striking about such languages is that it is difficult or impossible to analyze the formation of such complex words as the addition of affixes one by one to a stem. Rather, we seem to find that each affix has its position in the string and optional affixes are slotted into this string, at the appropriate point in the sequence, as required" (Spencer 1991:208). Spencer takes Navajo as his primary exemplar of template morphology.

The general notion of a template is well captured by Inkelas 1993. She argues that languages exist "in which morphemes or morpheme classes are organized into a total linear ordering that has no apparent connection to syntactic, semantic, or even phonological representation" (Inkelas 1993:560).

Simpson and Withgott 1986, in a detailed discussion of the definition of template morphology, distinguish template morphology from layered morphology, or morphology exhibiting constituent structure, on the basis of several criteria. The ones in the following list are summarized from Spencer 1991:212–213; see also Stump 1998:33–35 for discussion.

i. Zero morphemes are prevalent in template morphology but not in layered morphology.

ii. Layered morphology gives rise to headed structures, template morphology doesn't.

iii. Layered morphology is constrained by some principle of adjacency, template morphology isn't.

iv. Layered morphology doesn't permit an 'inner' morpheme to be chosen on the basis of what an 'outer' morpheme will be, template morphology permits this kind of 'lookahead.'

In general, Athapaskan languages can be said, at least superficially, to exhibit all of the properties of template morphology languages, as discussed in what follows. One of the goals of this book is to argue that, at least in the Athapaskan language family, these are superficial properties only, and that when the languages are understood in greater depth there is reason to think that they actually share properties with layered morphology languages.

2.2.1 Zero Morphemes

Simpson and Withgott 1986 argue that zero morphemes are prevalent in template morphology but not in layered morphology. A number of the positions in the templates in (1) and (2) are often argued to contain zero morphemes. Among these are a null voice/valence, a null viewpoint aspect (imperfective), a null situation aspect, and, in some analyses, a null subject (non-first/second person).

2.2.2 Discontinuous Dependencies

Simpson and Withgott 1986 also argue that template morphology may exhibit discontinuous dependencies. Within the string defined in (1), many discontinuous dependencies are argued to exist. For instance, many verb roots must occur with a particular qualifier; some Slave examples are given in (3). The verb 'be afraid, scared' has a prefix *n* and the stem *ji* (3a).[1] The verbs 'lie' and 'talk' always occur with the areal marker *go*. These can be separated by a number of different morphemes; the examples show situation aspect, viewpoint aspect, and subject intervening between the first and second elements of these complex verbs. The lexical entry is shown on the first line, a verb word on the second line, and the internal morphology of this word on the third line.

(3)   a. n-ji   'be afraid, be scared'
          neh ji   'I am afraid, scared.'
          ne qualifier + h 1sg Subject + ji stem
       b. go-ts'i   'lie'
          guíts'i   'We laugh.'
          go areal Object + í 1pl Subject + ts'i 'lie'
       c. go-de   'talk'
          goyi**de**   'I talked.'
          go areal Object + y situation aspect + i viewpoint aspect/1sg
          Subject + de 'talk'

Some adverbial-type items are treated as complex; for example, some preverbs obligatorily occur with a particular qualifier. Slave examples are given in (4), where the preverb *ná* and the qualifier *n* both occur. In this semantic class of verbs, these are inseparable – one does not occur without the other, and they are assumed to constitute a single lexical entry (see, for instance, Hargus 1988 and Rice 1989).

(4)   a. **ná**kineyį̃ht'u
          ná preverb + ki 3pl acting on 3sg + ne qualifier + y situation
          aspect + į̃ viewpoint aspect + h voice/valence + t'u 'action with
          fist, uncontrolled'
          'They punched him/her/it.'
       b. **ná**seneyį̃ta
          ná preverb + se 1sg Object + ne qualifier + y situation aspect +
          į̃ viewpoint aspect + ta 'action with foot, uncontrolled'
          'S/he kicked me.'

Discontinuous dependencies can also be found between certain pronominals and voice/valence morphemes. For instance, the presence of a reflexive or reciprocal direct object requires the presence of the middle voice marker. In addition, the *d* self-benefactive (for oneself) also requires this voice marker.

2.2.3   Metathesis

Spencer 1991:209–210 suggests that template languages may exhibit unusual phonological properties such as metathesis. In this section I briefly discuss this process, which displaces morphemes from where the template would have them.