

Northwest Passage:  
Northern Athabaskan Copulas and Auxiliaries

by

Nicholas (Daniel Sibley) Welch  
B.A., University of Victoria, 1995

A Thesis Submitted in Partial Fulfillment of the  
Requirements for the Degree of

MASTER OF ARTS

in the Department of Linguistics

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### ABSTRACT

In the Northern Athabaskan languages Tłı̨chǫ Yatı̀, Dene and Dene Dzage, copulas and auxiliary verbs are based on reflexes of two Proto-Athabaskan roots, *\*-Lǫǫ* and *\*-T'E'*. I propose that in the first two languages, copulas with nominal complements show distributional differences that derive from a stage-/individual-level predicate distinction, and that historically, this distinction in the proto-language motivated the development of auxiliaries marking tense/aspect/mode distinctions solely from the copulas based on *\*-Lǫǫ*. Further, I propose that subsequent to this development, the original stage-/individual-level predicate distinction between the copulas disappeared in Dene Dzage, leaving the TAM markers as evidence of its historical existence. I provide support for these contentions with data from fieldwork in Tłı̨chǫ Yatı̀ and from textual sources in all three languages, grounding the work in current theories of syntax and of temporal grammar.

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## List of Abbreviations

1dp	first person dual/plural (subject), etc.
1p	first person plural (subject), etc.
1po	first person plural object, etc.
1s	first person singular (subject), etc.
ar	areal
decl	declarative
dim	diminutive
evid	evidential
foc	focus
im	imperfective
ind	third person indefinite subject
masc	masculine
neg	negative
nml	nominalizer
opt	optative
pf	perfective
poss	possessive
pt	particle
recip	reciprocal
refl	reflexive
TAM	tense/aspect/mode

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*I am convinced, Yorick, continued my father, half reading and half discoursing, that there is a North west passage to the intellectual world ... — The whole entirely depends, added my father, in a low voice, upon the auxiliary verbs, Mr. Yorick. ... Now the use of the Auxiliaries is, at once to set the soul a going by herself upon the materials as they are brought her ; and by the versability of this great engine, round which they are twisted, to open new tracks of enquiry, and make every idea engender millions.*

*A WHITE BEAR ! Very well. Have I ever seen one? Might I ever have seen one? Am I ever to see one? Ought I ever to have seen one? Or can I ever see one?*

*Would I had seen a white bear! (for how can I imagine it?)*

*If I should see a white bear, what should I say? If I should never see a white bear, what then?*

Laurence Sterne, *Tristram Shandy*

*“Dı sahcho nets ’o n̄jt ’e?”*

Grade 1 Dogrib Class, Elizabeth Mackenzie Elementary School, *Jıewa Eyıts ’o Sahcho Degoo*

## DEDICATION

TŁıCHQ NÈ TS’Q CHEKOA GHA—

*dı sahcho naxıts ’o h̄t ’e.*

# 1 Introduction

This thesis is an examination of copulas – verbs meaning ‘be’ – and certain other verb forms based upon them in three languages of the Northern Athabaskan group. Its main contentions are that a semantic distinction exists between two copulas, and that this semantic distinction has played a part in historical changes that underlie the origins of the existential and auxiliary verbs that are based upon them. To make these claims, this thesis uses primary data from both textual sources and fieldwork with native speakers, supported by the work of scholars in the field.

## 1.1 The languages

Three languages feature in this thesis: Tłı̨chʔ Yatı̨i (also known as Dogrib), Dene (Slave) and Dene Dzage (Kaska).<sup>1</sup> All are members of the Athabaskan family, a group of between thirty and forty related languages spoken in three regions of North America. The Northern group, to which the languages in this study belong, is spoken in a region extending from Alaska to the eastern Northwest Territories and south into British Columbia, Alberta, Saskatchewan and Manitoba. The Pacific Coast group includes half a dozen languages, all spoken on the coasts of Oregon and California. The Southern Athabaskan, or Apachean, group includes around ten languages spoken in the American Southwest.

Tłı̨chʔ Yatı̨i, Dene and Dene Dzage are spoken in an area of northern Canada stretching from north of Great Bear Lake in the Northwest Territories south into the northern parts of Alberta and west into British Columbia and Yukon. Tłı̨chʔ Yatı̨i is spoken in the area of the Northwest Territories between Great Bear and Great Slave Lakes, Dene Dzage in northern British Columbia, southern Yukon and the south-western Northwest Territories, and Dene (a dialect complex, alternately considered one language or four closely related ones) in a large area of the Northwest Territories and a portion of eastern Yukon and the northern Prairie Provinces (Rice, 1989:8). Taken together, the languages are spoken by between five and six thousand speakers (*Ethnologue* 2005; Marinakis 2003:2; Moore, 2002:312). Dene and Tłı̨chʔ Yatı̨i have been classed together in a “Canadian” or “Mackenzie” sub-grouping, and Dene Dzage in a sub-grouping with the neighbouring Tahltan, “Kaska-Tahltan” or “Cordilleran” (Moore, 2002:314; Goddard 1996, after Rice 1989).<sup>2</sup>

---

<sup>1</sup> The name “Dene” is applied in several different ways in both Athabaskanist literature and popular usage. It is used to refer to the Athabaskan language family itself, to the Chipewyan (Dēne Sų́łíné) language that is a member of this family, and to the Slave language, also a member. In this work I use the word only in the third sense. For the language family itself I use the term “Athabaskan”. (The spelling “Athapaskan” is also common in the literature.)

<sup>2</sup> Although Mithun’s taxonomy (1999:346) does not include a division between Proto-Cordilleran and Proto-Mackenzie, I have chosen to follow Goddard and Moore, as the data I have examined offer additional support for such a division.

## 1.2 The copulas

In all three of the languages of study, there are two distinct stems that are both generally given the English gloss ‘be’.<sup>3</sup> These stems are derived from the Proto-Athabaskan roots *\*-Lǰǰ* and *\*-T’E’* (Leer 1991; Young, Morgan and Midgette 1992). In the modern languages they have the following shapes:

**Table 1: forms of the copula stems**

PA	Tł̥ch̥ Yatì	Dene	Dene Dzage	Mode <sup>4</sup>
<i>*-Lǰǰ</i>	-l̥	-l̥	-l̥n	Imperfective
	-l̥è	-l̥é(h)	-l̥n	Perfective
	-l̥è	-l̥é(h)	-l̥é	Optative
<i>*-T’E’</i>	-t’è	-t’è	-t’ā/-t’ē	Imperfective
	-t’è	-t’é	-t’ā/-t’ē	Perfective
	-t’è	-t’é	-t’ē	Optative

These two stems are intriguing because they are both used as copulas in similar contexts and with similar meanings, because in these uses they follow similar morphosyntactic patterns, and because despite these similarities, they exhibit discernable differences in distribution that need to be explained. In addition, existentials (verbs used to assert the existence of something) and auxiliary verbs that are based on these two stems also exhibit distributional differences.

Furthermore, there has been as yet no dedicated study of Athabaskan copulas, and this thesis is intended to serve as the groundwork for such a study.

<sup>3</sup> In Athabaskan languages, the highly synthetic verb is formed from a usually monosyllabic root; a small number of suffixes that are generally associated with grammatical aspect; a large number of prefixes indicating person, aspect, mode, conjugation and verb “theme” (the last is a lexical element that contributes to the meaning of the verb); and, often, incorporated adverbs and nouns. “Stem” in the literature, refers to the verb root and any attached suffixes. Rice 2000 is devoted to the process of word formation in Athabaskan verbs.

<sup>4</sup> In the Athabaskanist literature, *mode* is a structural term encompassing perfective and imperfective aspect (collectively referred to as “viewpoint aspects” in the literature on cross-linguistic aspect, because they illustrate a distinction in how events in time are viewed by the speaker) together with the optative. (The last is indeed considered a mode, or mood, by non-Athabaskanists.) Dene has in addition a future mode (Rice 1989:511). However, as it is formed using the imperfective stem, there is no need to include it in Table 1.

The seemingly disparate categories designated by “mode” share not only an effect upon stem shape, but also designation by prefixes in two positions close to the stem in verb morphology (Moore, 2002; Rice, 1989:485ff.). These positions are called 10 and 11 in Rice’s grammar of Slave and 3 and 4 in Moore’s dissertation on Dene Dzage, but are actually the same in both languages (and in Tł̥ch̥ Yatì): Moore and Rice count in opposite directions.

### 1.3 Focus

It is important to state at this point what does not lie within the topic of this thesis, as there is a range of elements that could potentially be included. There are a number of verbs based upon the stems  $*-L\ddot{I}\ddot{I}$  and  $*-T'E'$  that are neither copulas, existentials nor auxiliaries: such verbs are excluded from my analysis. Secondly, “auxiliary” is a broad category in Athabaskan languages. The focus of this thesis is solely those post-verbal elements that are formed upon verb stems that are reflexes of  $*-L\ddot{I}\ddot{I}$  and  $*-T'E'$ . Sometimes “post-verbal particles” (uninflected forms that convey a range of meanings from evidentiality through modality to speaker attitude) are considered in Athabaskanist literature to be auxiliaries. This thesis, however, treats only the following elements:

- Copulas based upon  $*-L\ddot{I}\ddot{I}$  and  $*-T'E'$ ;
- Existential verbs derived from those copulas;
- Post-verbal auxiliaries likewise derived from those copulas.

### 1.4 Questions and proposals

This thesis poses the following three research questions:

- i. What distinctions exist between the two copulas in these languages, and between the auxiliaries based upon them?
- ii. What syntactic and semantic structures can be proposed to explain their behaviour?
- iii. Did the semantic differences between the copulas in the modern languages exist in their immediate ancestor language?

It proposes solutions to these three questions as follows:

- i. Syntactically, each copula takes one or two arguments, one of which (the subject) may be unexpressed. The other argument, if any, may be a noun, an adjective or a verb. With a verbal complement, the copula is of category T and therefore heads a node (TP) above the main verb. Copulas with apparently verbal complements may be auxiliary verb constructions (AVCs) or may be main verbs with nominalized complements; that subject agreement in copulas with these ostensible verbal complements is possible (indicating a nominalized verb complement with a full copula) but not obligatory (where a lack of agreement indicates an auxiliary with a main verb complement) illustrates the difference between these two types of structure.
- ii. The distinctions between the copulas, and between the auxiliary verbs based upon them, derive from a semantic difference, and the distribution of copulas and auxiliaries is governed by rules that are semantic in origin.
- iii. Distributional differences of semantic origin existed in the protolanguage between the two copulas, and in some descendent languages these differences have remained.

### 1.5 Methodology

For Dene and Dene Dzage, the main sources of data are textual. The most important text is certainly the Canadian Bible Society’s translation of the New Testament

in Tłıchq Yatı̀ (Canadian Bible Society, 2003), simply because of its size (over twelve thousand sentences). Texts in the other two languages are *Nahecho Keh* (Thom et al., 1987), a collection of Dene elders' stories and speeches, and *Dene Gudeji: Kaska Narratives* (Moore, 1999), a diverse set of stories in the Dene Dzage language. These are supplemented to some degree by suggestions that have come from correspondence with scholars in the field, notably Keren Rice for Dene and Patrick Moore for Dene Dzage. For Tłıchq Yatı̀, an additional source of data has been fieldwork consultations with Mary Siemens of the Tłıchq Community Services Agency in the spring of 2007. Instances of the copulas occurring in these data will be examined for their morphosyntactic and semantic structure, distributional properties, and meaning in context. Conclusions will be drawn based upon recurring patterns.

## 1.6 Theoretical assumptions

The syntactic analysis in this thesis will be grounded in the traditions of generative syntax. It is my contention that AVCs involve a further TP or AspP (aspect phrase) above the VP that subsumes the (often morphologically complex) complement verb.

In the semantic portion of this thesis, I will rely on conceptual semantic categories, following in the tradition of the literature on individual- and stage-level predicates (Carlson, 1977; Kratzer, 1989, 1995; Musan, 1997), and on the organization of tense-aspect-mode systems (Bybee et al., 1994; Comrie, 1976; Comrie, 1985; Smith, 1991; Wilhelm, 2007), without, however, delving into formal semantic analysis. I have no training in the latter; in addition, such an analysis would require more space than is available in a work of this size.

## 1.7 Presentation of data

The examples herein are presented in the following format:

- (1)      Dezq̄           ʔeh̄ɬ̄       ekúh̄ ʔehdaro   tambáa   kóé   gozhı́   náhnde.  
           Child        **1s-be(im)**   then Big Island   shore   house   inside   1s-live(im)  
           ‘When I was a child I lived in a house on the shore of Big Island.’

(Dene; Sabourin, Margaret, Sr. in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:9)

The source (with page number) for each example appears immediately below it. (Examples from the Tłıchq Yatı̀ New Testament are cited by chapter and verse.) Where possible, the glosses are drawn from the original source. However, when glosses do not occur in the sources, I have supplied my own; this is the case for the examples from *Nahecho Keh*, the New Testament and the Tłıchq Yatı̀ stories. In rare cases I have added to the glosses where additional information would aid understanding of how the examples illustrate specific points. Where I have done this, I have noted it in each case.

For most examples, the free translations also come from the original sources. For the Tłıchq Yatı̀ stories, however, I have sometimes supplied my own; this is noted when it occurs. For the examples from the New Testament, the free translations (or rather, the

equivalent passages in English) come from the New International Version available from Gospel Communications at [www.BibleGateway.com](http://www.BibleGateway.com).

## **1.8 The structure of this thesis**

After reviewing the literature on which this thesis rests in Chapter 2, the three central chapters will deal with the morphological, syntactic and semantic structure of the copulas and associated existentials and auxiliaries, and make proposals about the diachronic processes that gave rise to the current situation. Chapter 3 is a survey of the morphology of the various verbs based on *\*-Lǝǝ* and *\*-T'E'* that are used with copular, existential or auxiliary function. It is organized by language: Section 3.1 deals with the verb forms of Tǝchǝ Yatǝ, 3.2 with those of Dene and 3.3 with those of Dene Dzage. Chapter 4 discusses the complement structures of copular, existential and auxiliary verbs and proposes analyses of these structures. Section 4.1 covers copulas and existentials and their arguments, nominal, adjectival or postpositional. Section 4.2 covers auxiliaries: verbs similar to, or based on, the copulas, but taking verbal or sentential arguments. Section 4.3 is an attempt to provide an analysis of the structure of the constructions surveyed in 4.1 and 4.2, and to provide Proposal (i): that the optional subject agreement we find on ostensible copulas with verbal complements reflects an actual dichotomy between copulas with nominalized verb complements on the one hand and auxiliary verb constructions on the other.

Chapter 5 addresses Proposals (ii) and (iii): that the distributional differences that we find in copulas and auxiliaries have semantic differences at their root, and that these semantic differences gave rise to the distributional differences through historical syntactic change. Section 5.1 argues that a stage-/individual-level distinction underlies the distributional patterns of the copulas. Section 5.2 demonstrates that this distinction does not, however, explain the distributional patterns of the auxiliaries. Section 5.3 describes the auxiliary distinction as related to the function of the auxiliaries: tense-aspect-mode on the one hand, and emphasis or focus on the other. Section 5.4 suggests a possible conceptual link between the semantics underlying the stage-/individual-level distinction and the TAM distinction; it proposes that this mechanism was historically the motivator for an extension of the copulas to auxiliary use. Section 5.5 draws attention to the significant differences between copula use in Tǝchǝ Yatǝ and Dene on the one hand and Dene Dzage on the other, and proposes that further historical changes in Dene Dzage may have resulted in the disappearance of the stage-/individual-level distinction between the copulas.

Chapter 6 summarizes the findings of the thesis, details the limits and shortcomings of those findings, and outlines possibilities for further research. Section 6.1 draws conclusions about its principal proposals, syntactic, semantic and historical. Section 6.2 describes the limitations of these conclusions and the factors that contribute to these limitations. Section 6.3 points out research questions raised by the unanswered questions in this thesis and suggests methodologies for pursuing them.

Before beginning the pursuit of evidence to support the proposals advanced in this chapter, it is worthwhile to survey previous work in this area: both the published texts that can serve as sources for linguistic data, and the grammatical research on which this thesis must stand. Such a survey is the focus of the next chapter.

## 2 A review of the literature

### 2.1 Introduction

The topic of copulas and auxiliaries is a hitherto little-explored corner of Athabaskan grammar. While the area of Athabaskan verbal morphology and semantics has been extensively explored, and while a few of such explorations have dealt with copulas and auxiliary verbs, no-one as yet has made a dedicated study of the form, function and history of these words. This chapter is a review of the literature to date that treats Athabaskan copulas and auxiliary verbs, and a background to further study.

This chapter is divided into three broad sections. Section 2.2 treats the primary sources: the stories, histories and other texts where we may observe auxiliaries, so to speak, in their natural habitat – connected discourse. Prominence is given to glossed texts containing numerous uses of the copulas and of auxiliaries formed on their stems. Section 2.3 deals with existing published linguistic work touching on the area of Athabaskan copulas and auxiliaries. Research that has covered these words has generally approached the topic from either of two angles. Some, such as Axelrod 1991, Midgette 1995, and Willie 1996, have taken a semantic approach, examining the structure that a given language uses to express concepts of tense or aspect, such as temporality, telicity, and so forth. Others, like Moore 2002, Rice 1989, and Young & Morgan 1987 and 1992, have written comprehensive grammars and dictionaries of various languages, and thus present the topic from a structural angle, or, like Kari 1979, Krauss & Leer 1981, and Leer 1979, have examined the history of verbal morphology and reconstructed its roots in the protolanguage.

Section 2.4 reviews published work of a more general theoretical bent. Since the goal of this thesis is to suggest historical and semantic motivations for the distributional patterns we find in the uses of the copulas and related auxiliaries in Northern Athabaskan languages, this section will deal with those works that focus on the following topics. For the distinction between individual- and stage-level predicates, which this thesis argues is important to the understanding of Northern Athabaskan copulas, the main sources are Carlson 1977 and Kratzer 1989 and 1995; other authors who touch on the distinction, particularly with regard to its interaction with tense, are Musan 1997 and Smith 1991. For the structure of tensed predicates, the main sources for this thesis are Demirdache and Uribe-Etxebarria 2000 and 2004. For general background on tense and aspect, Comrie 1976 and 1985 are central, as are Bybee, Perkins and Paglicua 1994. For analyses of grammaticalization and other historical semantic and morphosyntactic change (to which we will resort in order to suggest motivations for distinctions in the uses of Athabaskan auxiliaries based on the copulas), the sources are Heine 1993, Roberts and Roussou 1999 and 2003, and Anderson 2006.

This chapter surveys the background and basis for an attempted synthesis of the semantic and structural approaches: a comprehensive examination of the form, function and history of Athabaskan copulas and related auxiliaries.

## 2.1 Texts

Texts are the primary source of data for this thesis. For the most part, the texts used are transcriptions of historical or biographical oral narratives, although children's storybooks and the Tłıchq Yatı translation of the New Testament are also included.

One characteristic shared by several of the larger texts is their origin as community projects. This is certainly the case for *Nahecho Keh [Our Elders]* (Thom, Blondin-Townsend and Macintosh Wah-Shee, 1987) and for *Dene Gudeji: Kaska Narratives* (Moore, 1999), both of which are collections of stories and wisdom told by the elders of their respective communities. To a certain extent, the Tłıchq Yatı translation of the New Testament can also be considered this kind of project, since it involved the efforts of a number of expert translators from the Tłıchq community.

### 2.1.1 Tłıchq Yatı

For Tłıchq Yatı, there are a number of short texts from which examples are drawn in this thesis. One of these, *Ts'èko Eyıts'q Tłıa [The Woman and the Pups]* (Football, 1972), is a retelling of the legend of the origin of the Tłıchq people. *Dàanı Hozı Hòlı eyıts'q Dàanı Weyıts'atla Wegodı Hòlı [The Creation of the Barren Lands and the Couple Inside the Mountain]* (Wiebe & Thomas, 1997) is a legend explaining the origin of certain places in the Tłıchq lands. Other texts of the same nature are *Dàanı Tatsq Weèhdà Dıkqdeewò [How Raven Lost His Beak]* (Chocolate & Wiebe, n.d.) and *Yamòozha Wegodı [Tales of Yamòozha]* (Wiebe, Zoe, Siemens, & Beaulieu, n.d.), the latter being a collection of stories concerning the hero Yamòozha the Lawgiver. *Jıewa Eyıts'q Sahcho Degoo [Jıewa and the Polar Bear]* (Grade 1 Dogrib Class, Elizabeth MacKenzie Elementary School, 1995) is a charming children's story written as a group project by an elementary class.

*Tłıchq k'ğğ Ets'eetł'èe xè Enıhtł'è k'e Yats'ehtu: A Spelling Manual for Tłıchq Yatı* (Marinakı et al., 2006) is a guide for those who already have command of Tłıchq Yatı and want to master the orthography. It includes short texts at the beginning of each chapter as pedagogical tools. The texts that are included are very eclectic: prayers, reminiscences, recipes, dialogues and so forth.

*Nqhtsı Nıhtł'è: Zezi wegqhtı tł'axqò [Dogrib New Testament]* is one of the longest texts available in a Northern Athabaskan language. Its length and multiplicity of genres (narrative, letters, prophecy and so on) contribute to the richness and diversity of its language, and for all these reasons it is an important source for this thesis.

### 2.1.2 Dene

*Nahecho Keh [Our Elders]* (Thom, Blondin-Townsend and Macintosh Wah-Shee, 1987) is a collection of narratives by elders from the South Slavey dialect area. They are strictly autobiographical accounts, and are presented in a consistent format, beginning with details of each narrator's birth and upbringing, continuing on to important events in his or her life and concluding with assessments of the situations and problems of today and prognostications about the future.

*Grammar of Slave* (Rice, 1989) includes, as an appendix, three texts in the Dene language: “Making snowshoes,” “Food in Bearlake” and “First meeting with the whites.” The first two are quite short, the last more extensive. Each includes an interlinear gloss and a free translation.

### 2.1.3 Dene Dzage

*Dene Gudeji: Kaska Narratives* (Moore, 1999) is a collection of stories by master storytellers of the Dene Dzage people. Their genres run the gamut: there are fairly strict historical narratives such as “The history of the Tahltan and Tlingit war,” humorous histories such as “The first contact with whites,” cautionary tales like “The man who lived with his own sister,” and dramatic, action-filled stories such as “Squirrel Woman.” Each text is accompanied by a word-for-word interlinear gloss and a free translation.

Following the grammatical part of Patrick Moore’s dissertation, *Point of view in Kaska historical narratives* (Moore, 2002), are nineteen Dene Dzage narratives. Fourteen of these are presented in precisely the same format as those in Moore (1999) (in fact several of the narratives appear in both works), and the remarks above apply equally to them.

## 2.2 Descriptive grammatical works

This thesis draws on descriptive grammatical work by a number of authors on Athabaskan languages. Marinakis et al. (2006), mentioned above, also provides a great deal of grammatical information on Tł̥ch̥ Yatì: it has been an important source for this thesis. *Grammar of Slave* (Rice, 1989) is an in-depth grammatical description of Dene, both phonology and morphosyntax. It includes an entire chapter on post-verbals (Rice, 1989:403-424), treating both uninflected and inflected forms and including a substantial section on various forms based on *-l̥*, with discussion of what aspects are possible for their complements. This chapter, and another on complement-taking verbs that discusses the post-verbal use of forms based on *-t’e*, are indispensable for the study of copulas and auxiliaries in Dene; the book as a whole has been central to my gaining some understanding of the grammar of Dene.

Keren Rice’s *Morpheme Order and Semantic Scope: Word Formation in the Athabaskan Verb* (Rice, 2000) uses data drawn from over a dozen Athabaskan languages, including Navajo, Ahtna, Koyukon, Carrier, Denaina and others, as well as Dene, her chief language of study. Rice argues that the apparently templatic nature of the Athabaskan verb in fact reflects an underlying system of semantic scopal relationships between verb affixes. In the process, she takes the reader on a tour of Athabaskan verbal morphology, through adverbial, thematic/gender, modal, aspectual and personal prefixes. Of particular interest for the present study is the chapter on the aspect system (Rice, 2000:246-323). Using examples from numerous languages, it divides the aspectual system into “viewpoint” (imperfective versus perfective) and “situational” (the rest of the aspectual distinctions) and discusses the combinations of prefixes and stems that signal each type and sub-type. As an examination of the typologically unusual morpheme order in Dene verb structure, a cross-linguistic guide for aspect identification, and an argument for a morphosyntax that reflects semantic scope, Rice 2000 is of central importance to this thesis.

*A Dictionary of the Verbs of South Slavey* (Howard, 1990) provides stem sets and paradigms for thousands of Dene verbs. The existence of both Slavey-to-English and English-to-Slavey sections makes confirming the identification of unfamiliar verb forms easy and efficient. Under each stem, not only are numerous verb themes listed, but partial paradigms for many of those verb themes as well. Of particular use is the listing of each verb with all documented stem shapes, making it a useful tool for identifying the aspect of any one form.

*Comparative Athabaskan syntax: arguments and projections* (Rice & Saxon, 2005) is a summary and synthesis of previous work on Dene syntactic structures, much of it by Rice and Saxon themselves, but spanning the domains of syntax, semantics and historical linguistics, and drawing on the contributions of numerous researchers, most notably Kenneth Hale, Margaret Speas and MaryAnn Willie. Rice & Saxon's main aim is to provide a coherent analysis of the *yi-/bi-* prefix alternation in Dene verbal morphology; this alternation has profound effects on features as diverse as argument position and structure, noun incorporation and valency. They proceed from the theoretical stance espoused by Rice (2000), which takes semantic scope as the primary determiner of the structure of the Dene verb. This stance is the one that I shall assume in my treatment of the semantics of auxiliaries in Chapter 5 of this thesis.

*Point of view in Kaska Historical Narratives* (Moore, 2002) contains both an anthropological examination of the styles and significance of Dene Dzage storytelling and a descriptive grammar of Dene Dzage, in addition to the narratives mentioned in Section 2.2.3. The explications of prefix morphology and verb stem paradigms have been useful for me in the identification of Dene Dzage modal and aspectual forms. There are several pages on uninflected post-verbal particles and a brief treatment of auxiliaries with their most common uses. This work, then, does for Dene Dzage verbal structure what Rice (1989) does for Dene.

*Proto-Athabaskan Verb Stem Variation* (Leer, 1979) lays the groundwork for subsequent historical work on Athabaskan verbs. Leer's reconstruction of Proto-Athabaskan and Pre-Proto-Athabaskan verbal roots, using data from Tlingit to Dëne Sųłíné, has been the main source of information on Proto-Athabaskan stem forms for this thesis. Worthy of particular mention in this regard is his enumeration of the sound change rules from PPA to PA (Leer, 1979:91-97).

Other descriptive works on languages within the Athabaskan family should be mentioned as well. Axelrod's (1991) dissertation on Koyukon is one of the most exhaustive treatments of aspect of any Athabaskan language. Cook (1984) is a descriptive grammar of Sarcee. Hardy (1979) is a structural analysis of Navajo aspect. Jetté and Jones's (2000) dictionary of Koyukon includes extensive grammatical work as well. Kari (1979) is a study of verbal derivation in Ahtna, also dealing with aspect and mode in their interactions with the thematic system. Midgette (1995) is an analysis of the use of the Navajo progressive; Midgette (1996) examines from a semantic perspective how aspect in general is used in Navajo, focussing on telicity. Tenenbaum's (1978) dissertation is a description of the Tanaina verbal system. Willie (1996) works on Navajo telicity and mode. Wilhelm (2007) discusses the interaction between telicity and durativity as features of the grammatization of aspect, contrasting the system of Dëne Sųłíné with that of German. Young and Morgan 1987 is probably the most complete grammar and dictionary published for any Athabaskan language. The verbal system in

particular is discussed in great detail. The dictionary provides extensive entries for thousands of word stems and examples of use. Young, Morgan and Midgette (1992) and Young (2000) provide more detailed analyses of the lexicon and the verbal system, respectively.

## 2.3 Cross-linguistic theoretical works

For the analyses of the syntax, semantics and history of the copulas, existentials and auxiliaries dealt with in this thesis, the work of numerous authors has been important. As mentioned in the introduction to this chapter, three theoretical topics are of greatest importance for the purposes of this thesis: the distinction between stage-level and individual-level predicates, the grammar of temporal categories such as tense and aspect, and syntactic change and grammaticalization, particularly in the formation of auxiliary verbs.

### 2.3.1 Stage-level and individual-level predicates

The distinction between stage- and individual-level predicates – roughly, the contrast between “temporary” assertions like *I am typing* and “permanent” ones such as *I am human* – was first discussed by Carlson (1977), who considered individual-level predicates to contain a “generic” operator. Diesing (1988) analyzed the distinction in terms of the origin of the subject: stage-level predicates, in this paper, are seen as having subjects generated within the verb phrase, while the subjects of individual-level predicates arise outside it. Kratzer (1989, 1995 – two versions of a single paper) departed both from this view and from Carlson’s, suggesting that it is stage-level predicates that contain extra information, namely “an extra argument position for events or spatiotemporal location” (Kratzer 1995:126). Individual-level predicates, she contends in this paper, do not have such an argument, adducing several kinds of evidence to support her claim, arguing that locatives, being spatiotemporal expressions, are key to understanding stage-level predicates. The conclusion she draws is that stage-level predicates have different possible interpretations from individual-level predicates *because* they differ in syntactic structure at an underlying level. This conclusion obviously has implications for any syntactic analysis of Athabaskan copulas: if the syntax and semantics of the copulas are to be explicitly related (and this thesis rests on the assumption that they are), any such analysis of the copulas must provide differing underlying structures for predicates headed by copulas based on  $-l$  and  $-t'e$ .

An important part of Kratzer’s paper for my analysis is that in which she discusses interactions of tense and transience. She points out that individual-level predicates are most characteristically present tense, and that one may change them into stage-level predicates by changing to a non-present tense. This has bearing on the uses of tense markers derived from the copulas in Athabaskan languages.

Musan (1997) addresses issues that arise out of Kratzer’s analysis, particularly the so-called “lifetime effects”, where a present-tense individual-level predicate like *Henry is French* has two interpretations when it is put into the past tense, one in which the predicate is considered no longer true, the other in which the subject is considered no longer in existence. This issue is important in the analysis of the interaction of tense and aspect with the stage-/individual-level distinction in Chapter 5 of this thesis.

### 2.3.2 Grammar of temporal categories

Smith (1991) takes up the task of presenting both an analysis and a typology of the marking of aspect cross-linguistically. She deals not only with all the various categories that are subsumed and generalized under the term “aspect” – viewpoint aspect, situation type (or *Aktionsart*), telicity, durativity, and the static/dynamic distinction – but with the relationship of aspect to two other grammatical parameters of time: tense and adverbials.

Smith dissects situation aspect, showing how Vendler’s (1957) four situation types (activities, achievements, accomplishments, statives – to which Smith adds a fifth, semelfactives) can be analyzed as bundles of temporal features: ( $\pm$ Static, Durative and Telic) and discusses the characteristic ways that aspect may be marked. Viewpoint aspect is similarly treated. In discussing viewpoint aspect, Smith considers imperfective and perfective (as well as a “neutral” viewpoint that leaves the distinction open) as “families” of viewpoints: all of them interact with situation type to produce further aspectual distinctions.

One chapter of Smith’s book is given over to the interaction of aspect with tense and with time adverbials. She sees all three as temporal locatives, ways of presenting information about a situation’s location in time. She does not formally link aspect with tense, but describes their interaction in detail, along with the role of adverbials in such interaction. The relations between these features, and between Speech Time, Reference Time and Situation Time, she argues, exhaustively describe the possible temporal categories in language. Smith uses an Athabaskan language, Navajo, to exemplify many of her claims, and provides a detailed analysis of its temporal grammar; this fact makes her work additionally important as a resource for this thesis.

Demirdache and Uribe-Etxebarria (2000) present a syntactic and semantic theory that unifies tense (past, present and future) with viewpoint aspect (perfective and imperfective) using a small set of structural components. They propose that tense and aspect are both ways in which grammar represents relationships between two times.

The authors begin by defining spatiotemporal relationships in terms of coincidence, following Hale (1984). They develop these relationships using three spatiotemporal operators (BEFORE, AFTER and WITHIN) and three times (Event Time, Utterance Time and Assertion Time). They show that tense can be analyzed by using the three spatiotemporal operators together with AST-T and UT-T.

Next, they set out to unify tense and aspect. Following Klein (1995), they claim that aspect (meaning viewpoint aspect), like tense, relates two times: EV-T and AST-T. They propose a syntactic structure where EV-T, UT-T and AST-T are Specifiers of VP, TP and AspP, respectively. The interactions between these three times generate the distinctions of aspect and tense.

This paper brings tense and viewpoint aspect neatly together under a single system, both semantically and syntactically, and provides tools that can potentially be used for the analysis of other ways in which grammar represents time.

In fact, this very promise is fulfilled in Demirdache and Uribe-Etxebarria 2004. Following up on Demirdache and Uribe-Etxebarria (2000), the authors set out to add not only time adverbs, but all adverbial adjuncts dealing with time, to their unification of tense and viewpoint aspect. The central idea is that tense, aspect and time adverbs are all “predicates of spatiotemporal ordering, projecting their argument structure in the syntax” (Demirdache and Uribe-Etxebarria 2004:143). As this statement implies, the thesis of the

authors is both semantic and syntactic: time adverbs are arguments of syntactic “temporal heads” and modify phrases in both the semantics and the syntax. This paper extends the treatment of the three temporal operators BEFORE, AFTER and WITHIN to cover time adverbs, which, they claim, modify time spans using these same operators.

For example, simple temporal adverbial PPs such as “before Christmas” or “in 2000” can be seen as spatiotemporal predicates taking the three times as their arguments. The same kind of analysis can be applied to durational adverbials as well. Perhaps the most interesting development of their argument is that this analysis is recursive: it can be applied repeatedly to create new structures. This property permits potentially infinitely complex structures and is therefore an extremely powerful tool for the fine-tuned analysis of adjuncts. Interestingly, Demirdache and Uribe-Etxebarria also argue that *all* time adverbials are PP modifiers, both at the syntactic and at the semantic level of analysis.

For the analysis of Athabaskan copulas and auxiliaries in this thesis, this article, along with Demirdache and Uribe-Etxebarria (2000), is important because of the possibility of unifying it with Kratzer’s work on transience. Since Kratzer (1995) claims that stage-level predicates differ from individual-level predicates in being associated with spatiotemporal variables, it should be feasible to analyze the difference between the two types of predicate using the tools developed by Demirdache and Uribe-Etxebarria. Such a unification would pave the way for a true conceptual link not only between transience and tense, but potentially a connection with aspect and time adverbs as well. The result would provide a motivation for the historical development of the copulas into tense markers, and the contention that tense and aspect both depend on relationships between simple operators and times would provide an explanation of how morphological aspect markers on the copulas could shape them into tense markers for their verbal arguments. In fact, the central historical and semantic contentions of this thesis can be seen as growing directly out of a synthesis of the ideas of Kratzer with those of Demirdache and Uribe-Etxebarria.

### **2.3.3 Historical linguistics and syntactic change**

Bybee, Perkins and Pagliuca (1994) examine the diachronic development of TAM systems cross-linguistically, focusing on semantic motivations for historical morphosyntactic change. It is organized not by syntactic categories, separating tense, aspect and mood from one another, but by semantically related functional categories, thus considering perfectives, resultatives, past and anterior forms in the same chapter. It covers a huge variety of TAM categories, examining in detail, and from a data-centred approach, the processes by which forms representing one TAM category can undergo semantic shift, resulting in a new relationship between form and function. A concept of semantic space underlies the analysis of these shifts: thus as a progressive, for instance, evolves into a simple present (a shift that has occurred in numerous languages), it leaves behind it a semantic void, inducing the development of another form (the authors suggest that locative expressions are a common source) into a new progressive.

As a reference for the types of morphosyntactic change in TAM markers and the motivations and sources for such change, this book is an invaluable resource for my argument for the development of aspectually marked copulas into tense markers in the languages of study. Furthermore, this work is rendered additionally illuminating by the inclusion of numerous examples drawn from Rice’s work on Slave. This fact makes

Bybee and her co-authors virtually unique, as most of the other theoretical works cited here make very little reference to Athabaskan languages.

Heine (1993) gives a thorough typological overview of the process whereby lexical verbs undergo grammaticalization, or evolution into grammatical markers: in broader terms, the transformation of syntax into morphology. Heine's book plunges into a corpus of data from over seventy languages to emerge with a list of "schemas," or syntactic-semantic constructions, that give rise to auxiliaries. Heine presents the thesis that auxiliaries tend to begin as independent verbs, become gradually "bleached" of their lexical meaning, lose whatever nominal complements they once had and perhaps elements of their paradigms as well, and become placeholders for modal, aspectual or temporal information. He further delineates the parallel phonological process of "erosion," whereby the original forms tend to become reduced in length and phonological complexities, and the semantic reanalysis that often accompanies grammaticalization. These arguments are important in Chapter 5 of this thesis, which proposes that processes of this sort gave rise to the use of forms of the copulas as auxiliary verbs.

Hopper and Traugott (1993) examine numerous kinds of morphosyntactic change from the perspective of grammaticalization: the semantic bleaching of content words and their reanalysis as grammatical forms. Like Heine (1993), Hopper and Traugott see grammaticalization as a continuum or "cline", with content items passing through stages of existence as grammatical words and clitics before becoming affixes. Like Bybee et al. (1994), they stress both the multiplicity of paths by which items can undergo grammaticalization and the unidirectionality of development along these paths, supporting their proposed paths and motivations with data from numerous languages.

In their study of syntactic change, Roberts and Roussou (1993) analyze syntactic change in TAM categories in a chapter on "T elements" (elements associated with the Tense Phrase node in syntactic structure). This work looks deeply into a few particular examples seen to be representative. For instance, a discussion of the path of "auxiliation" (that is, the creation of auxiliaries from lexical verbs) is illustrated by the development of the English modals. The chapters on both T elements and C elements (complementizers) are useful for understanding the possible motivations and processes that could have led auxiliaries in Northern Athabaskan languages to develop out of copulas.

Anderson (2006) builds on the work of Heine (1993) to produce a catalogue of auxiliary verb constructions in over four hundred languages. He organizes them on the basis of headedness, so that lexically-headed constructions are dealt with in one section, auxiliary-headed in another, and so-called "split-headed" and "double-headed" constructions in others. Anderson links these categories to the inflectional properties of auxiliaries, providing a useful diagnostic. By implicitly acknowledging a language-specific typology of constructions, Anderson sidesteps the controversy over whether auxiliaries in general are heads or dependents. The sections on split- and double-headed constructions are particularly intriguing, as Dene languages can exhibit both patterns – for instance, inflecting the main verb (but not the auxiliary) for subject and object, but inflecting both verbs for tense, aspect and mode.

Anderson also delves into diachronic questions: the grammaticalization process, fusion of auxiliary verbs with their complements, the origin of patterns of inflection and selection in auxiliaries, and variation in these patterns.

### 2.3.4 Conclusions

Three contentions are fundamental to this thesis. The first is that the distributional distinction between copulas based upon the reflexes of PA  $*-L\ddot{I}\ddot{I}$  and  $*-T'E'$  reflects a semantic distinction between individual-level and stage-level predicates. This proposal must rest on the theoretical framework provided by Kratzer (1989, 1995). The second contention is that a parallel distinction in the distribution of auxiliaries can be explained by the fact that auxiliaries based on  $*-L\ddot{I}\ddot{I}$  signal TAM categories while those based on  $*-T'E'$  do not. This claim can be informed by the cross-linguistic works on TAM categories detailed above, most vitally by the work of Demirdache and Uribe-Etxebarria. The third contention made in this thesis is that the similarities between these two distinctions arise because of the grammaticalization of copular forms into auxiliaries. Semantic similarity between tense distinctions and the stage-/individual-level distinction are held to be the motivation for this grammaticalization. Such a claim is predicated on the processes outlined in the works on grammaticalization reviewed above, particularly Bybee et al., and on the unified view of the grammaticalization of temporal concepts espoused by Demirdache and Uribe-Etxebarria.

### 3 The morphology of copular verbs

This chapter discusses the morphological composition of the copulas and existential verbs that are formed upon the *\*-Lǰǰ* and *\*-T'E'* stems, and of the auxiliaries that are based upon them. It serves to introduce the verbs whose behaviour is the subject of this thesis. Its purpose is to allow us to recognize forms of these verbs in the texts, not always a straightforward task because of the complex and subtle nature of Athabaskan verbal morphology. For this reason, the verbs are presented as *themes*, a term used in Athabaskan studies to refer to the elements of a verb that determine its meaning and do not vary with person.

Referring to verb themes is useful because in Athabaskan languages inflectional elements occur closer to the stem than most derivational elements. The derivational prefixes that are known as “thematic” in the literature occur outside of person agreement.<sup>5</sup> The thematic prefixes, together with the classifier<sup>6</sup> and the stem, form the verb theme. An illustration is perhaps useful here. The verb theme for *ats'it'e*, a form of one of the two copulas in Tłı̨chǰ Yatı̀, consists of a thematic prefix (*a-*), a conjugation marker (*ǰ-*), and the verb stem (*-t'e*). The element *ts'-* is a form of the first-person plural marker; where possible, verb themes in this thesis are by convention cited in the first-person plural.

Since the main arguments of this thesis are only peripherally concerned with morphology, and since the morphology of the Athabaskan verb has been dealt with masterfully in Rice (2000), the nature of the classifier and the thematic prefixes will not be discussed here. They will enter the field of view only when they are necessary to an understanding of irregularities in a paradigm; otherwise verb themes will be treated as unanalyzed units.

This chapter is organized by language. Section 3.1 deals with Tłı̨chǰ Yatı̀, Section 3.2 with Dene and Section 3.3 with Dene Dzage. Within each of these sections, subsections discuss the changes that the verb stems undergo to show aspectual or “modal” marking, the inflectional prefixes that occur in conjunction with these stems, and paradigms of the copulas and existential verbs that are the subject of this thesis. These paradigms are necessarily incomplete in most cases: since the bulk of the data for this study comes from published texts, very few verbs occur in all forms. (Additional data come from fieldwork in Tłı̨chǰ Yatı̀, and grammatical works on all three languages

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<sup>5</sup> This structure, while appearing exotic to those unfamiliar with Athabaskan languages, is quite similar to that of English phrasal verbs such as *look up*. The particle *up* is a derivational element analogous to the Athabaskan thematic prefixes: an integral part of the verb without which its meaning is quite different. Inflectional affixes occur between this particle and the stem, as in *She looked up the word*. A difference between English and Athabaskan languages is that *all* Athabaskan verbs are formed in this way.

<sup>6</sup> The classifier is a prefix occurring immediately before the verb stem; Rice and others analyze it as a valence marker.

have also contributed some examples: chiefly Moore (2002), Rice (1989), Saxon & Siemens (2006), and Marinakis et al. (2006)).

### 3.1 Tł̨chq̨ Yatì

Tł̨chq̨ Yatì is a language in which very extensive texts are available. For this reason, we are able to provide nearly complete paradigms of the verbs in question for this language. At the same time, these texts are fairly standardized, so little dialectal variation appears in this section.

#### 3.1.1 Stems

Athabaskan verb stems appear in different shapes according to mode.<sup>7</sup> Stem shape alternation can be shown in many cases to be the result of morphological processes and historical changes (Leer 1979:10-13), factors that are beyond the scope of this thesis. However, it is necessary to be aware of the alternation, as stem shape provides an important clue to recognizing the mode of a verb.

The imperfective form is used when the verb refers to an event that is ongoing, interrupted or otherwise incomplete; perfective, by contrast, denotes an event that is finished or otherwise viewed as a complete whole. Optative mode, on the other hand, describes an event that has not yet occurred, but whose occurrence is theorized, hoped for or wished.

Table 2 illustrates the usual shapes of the stems used to form copulas in Tł̨chq̨ Yatì, and the existentials and auxiliaries based on them. It should be emphasized that this is not an exhaustive list; some individual verbs described in this chapter have stem sets that vary from the forms laid out in Table 2. The descriptions of individual verb paradigms in Section 3.4 include notes on stem shapes where these deviate from those shown in Table 2.

**Table 2: Tł̨chq̨ Yatì copula stems**

PA	Tł̨chq̨ Yatì	Mode
	-l̨	Imperfective
*-L̨ł̨ł̨	-l̨è	Perfective
	-l̨è	Optative
	-t'e	Imperfective
*-T'E'	-t'è	Perfective
	-t'è	Optative <sup>8</sup>

Tł̨chq̨ Yatì copula stems bear an unmarked tone in the imperfective, but a marked low tone in the other modes. The imperfective copula stem shapes in Tł̨chq̨ Yatì are *-l̨* and *-t'e*. The former shows assimilation to a preceding *h-*:

- (1) Ezh̨            eh̨ł̨.  
       crazy        1s-be(im).  
       'I'm nuts.'

(Tł̨chq̨ Yatì; Saxon & Siemens 2007)

The perfective stems are *-l̨è* and *-t'è*, with one exception where the verb *ts'ł̨ł̨* is concerned. The perfectives formed on the stem shape *-l̨* describe a change of state rather

<sup>7</sup> In the Athabaskanist sense of the term; see Footnote 4, Section 1.3.

<sup>8</sup> Marinakis et al. (2006), but unattested in the present data.

than simple being, and are often translated ‘became’, while those formed on *-lè* are generally translated by a form of ‘be’. The contrast is illustrated by (2) and (3):

- (2)           Kwekò-gogehtsɿ-dòò                   kwe                   ʔògeèhk'aa                   sìi  
 Rock-house-ar-3p-build-nml-person-poss   rock           3p-throw away(pf)-nml       foc  
               eyi kwe           denahk'e           wet'aaʔà           **whelɿ.**  
               that rock           most           3s-be important       **3-be(pf)**

‘The stone the builders rejected has become the cornerstone.’

(Tł̨chq̨ Yatì; Luke 20:17)

- (3) David, Solomon   wetà           hqt'e           (eyits'q̨ Solomon  
 David Solomon   3s-father   3-be(im)       and Solomon  
               wemq̨       Uriah       wets'èkeè       **ɿlè)**  
               3-mother   Uriah       3-wife-poss   **3-be(pf)**

‘David was the father of Solomon, whose mother had been Uriah’s wife.’

(Tł̨chq̨ Yatì; Matthew 1:6)

The optative of *ts'ɿlɿ* also occurs formed on two different stem shapes:

- (4)           Nexè   sìghà       **welè.**  
           2s-with   rightly   **3s-be(opt)**  
           ‘May all be well with you.’

(Tł̨chq̨ Yatì; Acts 8:20)

- (5)           Edahxq̨ neghq̨   nahoele   ha       **welì.**  
           Maybe 2s-for 3s-forgive fut   **3s-be(opt)**  
           ‘Perhaps he will forgive you.’

(Tł̨chq̨ Yatì; Acts 8:22)

It is unclear from the present data whether there is a semantic difference between forms based on these two optative stems.

Optative forms of copulas based on *-t'e* do not occur in the present Tł̨chq̨ Yatì data.

### 3.1.2 Inflectional morphology

In Tł̨chq̨ Yatì, as in other Athabaskan languages, verbs are marked with inflectional prefixes. All verbs show subject agreement for person and number; those that take direct objects also show object agreement. A further distinction is the “areal”, denoted by *go-/ho-* in Tł̨chq̨ Yatì, a prefix that indicates agreement with an areal subject or object: that is, a time, place or situation (Rice 1989:634).<sup>9</sup> Modal and aspectual distinctions are also indicated by prefixes as well as by the changes in stem shape discussed in Section 3.1.1. These aspectual prefixes co-occur with “conjugation markers” (Rice 1989:430) which vary with the adverbial and other prefixes that determine the verb theme.

<sup>9</sup> Although this reference and the next are to Rice’s *Grammar of Slave* (Dene), her remarks are true of all three of the languages of study.

The relationship between the various inflectional prefixes is complex; however, a brief and highly simplified summary (based on Rice and Saxon 2005) is worth providing here:

- object agreement
- areal
- third-person plural subject agreement
- aspectual marking
- singular subject agreement (first-person dual/plural and second-person plural also occur in this place)
- STEM

The significance of the order of these prefixes for present purposes is that the subject agreement markers occur surrounded by other grammatical material rather than at the word periphery as is the case in many languages of the world. This fact, together with the fusion of adjacent morphemes that is common in Athabaskan languages, means that the identification of forms is sometimes challenging; for this reason, paradigms are helpful. Therefore, in Section 3.1.2, after a few words about the shape of the aspectual prefixes, we present paradigms of the principal verbs with which this thesis is concerned, showing their inflectional variation according to mode/aspect, areal agreement, person and number.

### 3.1.2.1 Aspectual and modal marking

The copulas in Tłı̄chǵ Yatı̀ are generally unmarked in the imperfective, although in the third person forms of verbs based on *\*-T'E'* there is a pre-stem vowel *ɟ-* that is a historical relic of the proto-*n* conjugation marker. This vowel occurs in the first-person plural and third-person forms of both *ts'ı̄ɟ* and *ats'ı̄t'e*.

In verbs based on the *\*-T'E'* stem the perfective marker is a pre-stem *ɟ-*, identical to the imperfective marker just mentioned. This marker also appears in some (but not all) verbs based on the *\*-Lǵǵ* stem.

The optative prefix in Tłı̄chǵ Yatı̀ exists in three forms for copulas based on *-ɟ*: *e-*, *we-* and *wı-*. Optative forms of *-t'e* copulas are not attested in the present data.

Instances of aspectual and modal markers will be discussed with reference to the individual verbs in Section 3.1.2.2.

### 3.1.2.2 Paradigms

Two types of verbs are represented in the paradigms. The first type is the copula, used in sentences of the type 'X is Y' where either an identity between X and Y, or a description of X as an instance of Y, is being asserted. Forms of copulas can also be used as auxiliaries with verbal complements. The second type of verb is the existential, of the type 'there is X'; this type of verb invariably bears the areal prefix. However, existentials do not have a nominal subject, and the areal prefix seems to serve as a stand-in or "dummy" subject in a way that is strikingly parallel to the English construction 'there is/are'.<sup>10</sup>

<sup>10</sup> Copulas in these languages do not occur without complements. For this reason, it is clear that *k'oh* 'cloud' in (6) is the complement of the copula, not the subject.

- (6) K'oh        **gòhł**        dè,    zhah   łq        ade        ha,    tahkò.  
 Cloud        **ar-3-be(im)**    when   snow   lots   3-come(im)    fut    maybe.  
 When there are clouds, maybe lots of snow will come.

(Tłchq Yatì; Saxon & Siemens 2007)

There are many other verbs formed on the \*–Lł́ and \*–T'E' stems that are nevertheless beyond the scope of this thesis. There are, for example, verbs meaning 'be of a certain number', 'be sick', 'be bad', 'be like that' and so forth. They have been excluded because they are too numerous to be treated in a work of this size and because they either do not share the properties of the copulas that are the topic of this thesis, or there are insufficient data at present to support any conclusions about them.

A word on the so-called third-person singular in these languages is in order before proceeding to the paradigms. It is actually semantically unmarked for number: it may optionally occur with a semantically non-singular subject, in particular if the subject is non-human:

- (7) Behk'ò    t'asłł        **k'edè**        **hqt'e**.  
 Seagull    somewhere    **3-fly(im)**    **3-be(im)**  
 'Seagulls fly somewhere else.'

(Tłchq Yatì; MS 75)

Therefore, while it is cited in the paradigms as a singular form, we should bear in mind that it is not restricted to singular interpretations. It is unmarked in the morphological sense as well, being represented by the lack of a subject-agreement prefix.<sup>11</sup>

Another person category that bears some explanation is the first-person plural. It has an alternative use as an indefinite third person, in a manner analogous to the French *on* or the German *man*, or (though in a more restricted sense) the English *one* or impersonal *you*:

- (8) Zezì,    Christ    **wèts'edu**    sù,    Mary    ts'q        dq        elł        hqt'e.  
 Jesus    Christ    **3o-1p-call**    foc    Mary    from    person    3-be(im)    3-be(im)  
 'And Mary was the mother of Jesus who is called the Messiah.' [Lit., 'Jesus whom one calls/we call Christ was born from Mary.']<sup>12</sup>

(Tłchq Yatì; Matthew 1:16)

Verbal morphology in Athabaskan languages shows considerable fusion, and therefore the shapes in which the subject-agreement markers appear are not always the same. Nevertheless, as a very rough guide, we may say that subject agreement for person and number is marked by the following prefixes:

<sup>11</sup> Or by a null prefix, a difference in analysis that need not detain us here.

<sup>12</sup> Note that *dq elł* 'be a person' is an idiom meaning 'be born'.

### Tḥchq Yatì Subject Agreement

	Person		
Number	1	2	3
Singular	h-	ne-	∅
Dual	dì- wì-	ah-	g1-/ge-
Plural	ts'e-		

Let us now examine the paradigms of the copulas, existentials and auxiliaries occurring in the Tḥchq Yatì texts.

#### ats'it'e 'be'

This verb and *ts'ili* are the two most common copular verbs in Tḥchq Yatì.

ats'it'e 'be'		Person		
Mode	Number	1	2	3
Imperfective	Singular	aht'e (Acts 22:8)	anet'e (Acts 22:8)	hqt'e (Acts 22:8)
	Dual	adiit'e (Saxon, pc) awit'e (Saxon, pc)	aaht'e (Acts 7:26)	agut'e (Acts 10:23)
	Plural	ats'ut'e (Acts 14:15)		
Perfective	Singular	no data	no data	ait'è (Mark 1:13)
	Dual	no data	no data	agut'è (Acts 14:28)
	Plural	ats'ut'è (Acts 21:4)		
Optative	Plural	ats'ut'è (Saxon & Siemens 2007)		

The form *hqt'e* is a result of a historical merging of two forms, one of which included the adverbial prefix *ha-* 'thus' (Saxon, pc, 2007).

Specifically dual forms exist only in the first person, as is true of all verbs in this language (Ackroyd, 1982:101). In the second and third person, the same forms are used for both dual and plural, as (9-12) demonstrate:

- (9) Dq      lq,      'ts'èwhù      **aaht'e,**      gògedı  
          person      lots      quietly      **2p-be(im)**      3p-say to them(pf)

'The crowd ... told them to be quiet.' [Lit., 'said to them, "Be quiet."']

(Tḥchq Yatì; Matthew 20:31)

- (10) hagòhdi, “ǀaà waahte nì **aaht'e?**  
 3-say to them still 2p-rest(im) qn **2p-be(im)**  
 ‘He said to [the disciples], “Are you still sleeping and resting?”’  
 (Tǀchǀ Yatì; Matthew 26:45)

The same form, *aaht'e*, is used in both (9) and (10), despite (9) having dual reference and (10) plural. The same is true of *agǀt'e* in (11) and (12), respectively.

- (11) Wets'èkeè Elizabeth wìyeh. ǀak'aà Aaron  
 3-wife Elizabeth 3-be called(im) Both Aaron  
 wets'ihǀòǀo-dǀò **agǀt'e.**  
 3-descendent-person-poss **3p-be(im)**  
 ‘His wife Elizabeth was also a descendent of Aaron.’ [Lit., ‘His wife was called Elizabeth. Both of them were descendents of Aaron.’]  
 (Tǀchǀ Yatì; Luke 1:5)

- (12) Dǀ sǀ semǀ eyits'ǀ sechǀ **agǀt'e.**  
 This foc 1s-mother and 1s-brother **3p-be(im)**  
 ‘Here are my mother and brothers.’  
 (Tǀchǀ Yatì; Matthew 12:49)

This verb occurs as a copula, with two nominal arguments, one of which may be expressed only in the subject marking:

- (13) Nazareth got'ǀ Zezì **aht'e.**  
 Nazareth dweller of Jesus **1s-be(im).**  
 ‘I am Jesus of Nazareth.’  
 (Tǀchǀ Yatì; Acts 22:8)

- (14) Sèot'ǀ, eǀechǀ **aaht'e** dànìghǀ eǀek'aahdè  
 1s-relative recip-brother **2p-be(im)** why recip-2p-fight  
 ‘Men, you are brothers; why do you want to hurt each other?’  
 (Tǀchǀ Yatì; Acts 7:26)

The third-person form is also very frequently used in auxiliary position:<sup>13</sup>

- (15) Sǀ sǀ **dasenèehǀa hǀt'e.**  
 1s foc **2s-persecute(im)** **3-be(im)**  
 ‘[I] whom you are persecuting’  
 (Tǀchǀ Yatì; Acts 22:8)

<sup>13</sup> Chapter 4 will make the case that the auxiliaries are invariant forms that do not show subject agreement, but are derived historically from third-person inflected forms. Nevertheless, for the purposes of the present chapter, whose aim is to illustrate morphological patterns, auxiliaries will be glossed with a (historical) morpheme-by-morpheme breakdown to show their connection to the copulas from which they are derived. In subsequent chapters, they will be glossed according to their function rather than their historical morphological composition.

- (16) Chĩa gınahk'e aahı̄ hɔt'e!  
 Bird more than 2s-be(im) 3-be(im)  
 'Are you not more valuable than they?' [Lit., 'You are more than birds!']  
 (Tı̄chɔ Yatı̄; Matthew 6:26)

**ts'ı̄ı̄ 'be'**

This is the other Tı̄chɔ Yatı̄ copula. We have a more complete picture of this verb than we do of *ats'ıt'e*, as the paradigm below illustrates.

ts'ı̄ı̄ 'be'		Person		
		1	2	3
Imperpective	Singular	ehı̄	nelı̄ (Acts 24:2)	elı̄ (Acts 9:36)
	Dual	dı̄ı̄ı̄/wı̄dı̄ı̄ (Saxon, pc, 2008)	aahı̄ (Matthew 6:26)	gı̄ı̄ı̄ (Acts 15:8)
	Plural	ts'ı̄ı̄ (Saxon & Siemens 2007) ts'ı̄ı̄ı̄ (Acts 4:29)		
Perfective	Singular	whı̄hı̄ (Acts 22:28)	wheneı̄ (Saxon & Siemens 2007)	whelı̄ (Acts 11:28) ı̄lè (Acts 1:1)
	Dual	no data	no data	no data
	Plural	no data		
Optative	Singular	no data	no data	welè (Acts 8:20) welı̄ (Acts 8:22)
	Plural	no data	no data	no data
	Plural	no data		

The Tı̄chɔ Yatı̄ data illustrate that there exist two perfective stem shapes for this verb: *-lè* and *-ı̄*. The first appears as the stem for the form *ı̄lè*, generally translated "was"; the texts yield a complete singular paradigm for the second, alternate perfective, meaning approximately 'became':

- (17) Sqòmba ı̄ɔ k'èxa Roman got'ı̄ı̄ whı̄hı̄ hɔt'e.  
 Money lots in exchange Roman dweller of 1s-be(pf) 3-be(im)  
 for

'I had to pay a big price for my citizenship.' [Lit., 'I became a Roman citizen in exchange for a lot of money.']

(Tı̄chɔ Yatı̄; Acts 22:28)

- (18) Sı̄ eneèko whenelı̄ dı̄è.  
 Really old man 2s-be(pf) very  
 'You have become a very old man.'

(Tı̄chɔ Yatı̄; Saxon & Siemens 2007)

The perfective *ɟlè* and the optative forms *welè/weli* appear in auxiliary position. An example of the latter has already been cited (4); the former is exemplified by (19) and (20):

- (19) K'àowo Cornelius godanaèhɟɟ **ɟlè**  
 Ruler Cornelius 3po-expect(im) **3-be(pf)**  
 'Cornelius was expecting them.'

(Tɟichɔ Yatì; Acts 10:24)

- (20) Ekòo dzɛɛ k'e done ɟk'odeè elɟ  
 Then day at person medicine-great 3-be(im)-nml  
 Tìdeèbàa nàdè **ɟlè**  
 Great Slave Lake 3-live(im) **3-be(im)**

'In those days a great medicine man lived near Great Slave Lake.'

(Tɟichɔ Yatì; Thomas, Vital, in Wiebe, n.d.:1)

### **hohlè 'be made'**

<b>hohlè 'be made'</b>	Subject
Mode	areal
Imperfective	hohlè (Saxon & Siemens 2007) hohè (Matthew 22:4)
Perfective	hòèlɟ (Matthew 3:4) hɔɟlɟ (Acts 13:34) <sup>14</sup> hòlɟ (Saxon & Siemens 2007)
Optative	no data

This verb is formed with the areal prefix and the *-lɟ* stem, although interestingly, the stem variation pattern is the reverse of most copulas and existentials formed on this stem, in that the stem shape is *-lè* in the imperfective and *-lɟ* in the perfective. The translation 'be made' is perhaps misleading, in that this verb is not passive, but has an areal "dummy subject", like other existential verbs.

The differences between the forms from the New Testament and from Saxon & Siemens 2007 reflect editorial

orthographic choices rather than morphology or phonology (Saxon, pc 2008).

*Hohè* is used only with nominal arguments, as in (21) and (22):

- (21) Hòt'a nàsɟ **hohè** ha.  
 Already feast **3-be made(im)** fut  
 'I have prepared my dinner.' [Lit., 'A feast will already be made.']

<sup>14</sup> It is possible that the form *hɔɟlɟ* that appears in auxiliary position may be a different verb. Its exact meaning is difficult to determine:

Nòhtsɟ nàidà ayìlà eyit'à wekwò ehɟɟ **hɔɟlɟ** ha nìle.  
 God 3-live again(im) 3-do(pf) and so 3-flesh 3-rot(im) **3-be made(pf)** fut is not  
 'God raised him from the dead, never to decay.'

(Tɟichɔ Yatì; Acts 13:34)

(Tḥchḳ Yatì; Matthew 22:4)

- (22) John-Baptist      wegoht'òḳ      tṭs'aàdṭiḳho      weghà      t'à  
 John the Baptist      3-clothes      animal-big      3-hair      with  
    **hòèḣ**      eyṭs'ḳ      ewò      t'à      wewè      èḣ.  
    **3-be made(pf)**      and      leather      with 3-belt 3-be(im)  
 John's clothes were made of camel's hair, and he had a leather belt around his waist.  
 [Lit., '... and his belt was made with leather.']

(Tḥchḳ Yatì; Matthew 3:4)

**gòhḣ 'be (areal)'**

This is the standard existential verb in the Tḥchḳ Yatì texts, and is marked, like all existentials in this language, with the areal prefix *go-*. It occurs only in the third-person imperfective:

- (23) K'oh      **gòhḣ**      dè,      zhah      ḣḳ      ade      ha,      tahkò.  
 (rep. 6) Cloud **ar-3-be(im)** when snow lots come fut maybe.  
 When there are clouds, maybe lots of snow will come.

(Tḥchḳ Yatì; Saxon & Siemens 2007)

It can also be used to mean 'be born' or 'be created', even without object agreement:

- (24) Hanìkò      Mary      wezaa      **gòhḣ**      gots'ḳ      yet'àiṭè-le.  
 But      Mary      3-child      **ar-be(im)**      ar-to      4-sleep with(pf)-neg.  
 But he had no union with her until she gave birth to a son. [Lit., 'until her child was born.']

(Tḥchḳ Yatì; Matthew 1:25)

**wegòhḣ 'be born'**

This verb is based on the preceding one, but shows object agreement. A partial paradigm can be constructed, although second-person forms do not occur in the texts:

<b>wegòhḣ 'be born'</b>		Person (object agreement)		
Mode	Number	1	2	3
Imperfective	Singular	segòhḣ (Acts 22:3)	no data	wegòhḣ (Matthew 26:24)
	Plural	gogòhḣ (Saxon & Siemens 2007)	no data	gṭgòhḣ (Matthew 2:16)

The object agreement on this verb can appear even when a nominal argument is present, as (25) shows:

- (25) K'àowo tai whò giaꞑi gots'q dɔzhia  
 Ruler three star 3p-see(im) 3p-from boy  
**gigòhꞑ** gidzèè gihtà weghàà ɛlaàgogꞑhdè.  
**3p-be born(im)** 3p-birthday 3p-count? 3-for 3po-3p-kill(pf)  
 '[They should] kill all the boys...who were two years old and under, in  
 accordance with the time he had learned from the Magi.'

(Tɬichɔ Yatì; Matthew 2:16)

We have covered the forms of the copulas in Tɬichɔ Yatì, and the existentials and auxiliaries that are based on them. We now turn to the other two languages.

### 3.2 Dene

Considerable dialectal variation occurs in Dene. Four major dialects are recognized in the Northwest Territories: Slavey, Hare, Mountain and Bearlake (Rice 1989:9). Slavey accounts for all of the examples drawn from Thom, Blondin-Townsend and Macintosh Wah-Shee 1987. The remaining Dene examples come from Rice 1989; when the dialect is identified in the source, it also appears here.

#### 3.2.1 Stems

In Dene, as in Tɬichɔ Yatì, both copula stems bear an unmarked tone in the imperfective mode: *-lꞑ* and *-t'e*. One systematic difference between the two languages is that marked tone is high in the former but low in the latter. For this reason, the high tone on the vowels of the perfective and optative stems in Table 3 corresponds to a low tone in Tɬichɔ Yatì. This difference is a phonological characteristic of the languages as a whole, not of the stem sets in particular.

**Table 3: Dene copula stems (Howard 1990)**

PA	Dene	Mode
* <i>-Lꞑꞑ</i>	-lꞑ	Imperfective
	-lé(h)	Perfective
	-lé(h)	Optative
* <i>-T'E'</i>	-t'e	Imperfective
	-t'é	Perfective
	-t'é	Optative

As in Tɬichɔ Yatì, the *-lꞑ* stem in Dene is affected phonologically by the preceding voiceless fricative *h*, producing the shape *-lꞑ*:<sup>15</sup>

- (26) Dechꞑ ghálaehnda ehꞑ.  
 Wood 1s-work(im) **1s-be(im)**.  
 'I am a carpenter.'

(Dene; Rice 1989:1301)

In both the perfective and optative the copula stems generally bear high tone: *-lé* and *-t'é* in both. There is no ambiguity resulting from the identity of the shapes of the perfective and optative stems, as the prefixes that mark the two modes are quite different, with *we-* or *o-* marking the optative *-lé*, and *ꞑ-* marking the perfective. (Optative forms of *-t'e* do not occur in the present data.)

There are also several optative forms of *ts'ꞑlꞑ* that have the stem shape *-lí*:

<sup>15</sup> Note that Rice (1989) approaches this variation from the opposite direction: she cites *-lꞑ* as the basic form, and treats *-lꞑ* as the conditioned variant.



When it comes to the first-person plural, the situation is more complex. As mentioned in Section 3.2, Dene is dialectally diverse. The form that in Bearlake serves only as a first-person dual (Rice 1989:476) is used as a true first-person plural in South Slavey, the dialect spoken by the narrators of Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:

- (29) Séé **dethídié** shu agúht'e, séé kaecth'th'ı́ łue zq ghqshízheh.  
 Very **1dp-hungry** also ar-3-be(im) very ? fish only 1dp-eat (im)  
 'We were also very hungry and only had fish to eat.'  
 (Dene; Gargan, Alfred, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:83)

In (29), the narrator is describing hardships faced together with his mother and siblings; the subject is clearly not dual. Therefore, with reference to Dene, we will refer to forms showing the characteristic *thí-* prefix seen in (29) as “dual/plural” (dp), in recognition of its use for both functions. Forms bearing the *ts'e-* prefix, which, as in Tłı̄chq̄ Yatı̀, can serve either as first-person plural or indefinite third person, we will call “indefinite” (ind) in the Dene paradigms. We will reserve “plural” (p) for second- and third-person forms. We therefore have the following pattern of subject agreement in Dene, to which the same remarks about fusion apply as in our discussion of Tłı̄chq̄ Yatı̀:

**Dene Subject Agreement**

	Person			
Number	1	2	3	Indefinite
Singular	h-	ne-	∅	ts'e-
Dual/Plural	thí-	ah-	gı-/ge- <sup>16</sup>	

**ats'ıt'e 'be'**

This is one of the two copulas in the Dene data. (*Ts'ı́łı́*, following, is the other.) It is found in the following forms in the Slave data (page-numbered citations are from Thom, Blondin-Townsend & Macintosh Wah-Shee 1987):<sup>17</sup>

<sup>16</sup> In the Hare and Bearlake dialects of Dene, the third-person plural prefix is *ke-* (Rice 1989:623).

<sup>17</sup> The lack of second-person forms, and of optatives, is a result of the fact that narrative texts provided the bulk of the data.



ts'ɪɪ 'be'		person			
Mode	Number	1	2	3	Indefinite
Imperfective	Singular	ʒehɪ (9) hehɪ (Rice 1989)	nehɪ (Rice 1989)	ehɪ (15) hɪɪ (Rice 1989)	ts'ɪɪ (37) ts'ehɪ (Howard 1990)
	Dual/plural	hídlɪ (Rice 1989)	hahɪ (Rice 1989)	gɪɪɪ (81) kɪɪɪ (Rice 1989)	
Perfective	Singular	thíléh (55) thɪɪ (105)	no data	ɪlé (31) yɪlé (Rice 1989) lé (Rice 1989) ɪlí (Rice 1989) thelɪ (Howard 1990)	
	Dual/plural	no data	no data	no data	
Optative	Singular	no data	no data	olí (12) holí (41) welí (Rice 1989) welé (Rice 1989) wolé (Rice 1989)	
	Dual/plural	no data	no data	no data	

The form *ts'ehɪ* cited by Howard does not occur in Thom et al. As in T̥ɪchɔ Yat̥i, the existence of two different perfective stems for this verb is significant. The forms cited as *thɪɪ/thíléh* and *thelɪ* generally describe a change of state rather than simple being, and are often translated 'became'. These forms show the effect of the proto-*s* conjugation marker, while *ɪlé* ('was') is the descendant of the same verb stem with the proto-*ɣ*. The two forms *thíléh* and *thɪɪ* are used in similar contexts with similar meaning, as (31) and (32) demonstrate. It is not clear how they differ:

- (31) Káa            dúle            n̥ɪdh̥ɪ            ɪlé,            ʒɔhndah            **thíléh.**  
 Just 3-be possible(im) 1s-think(pf) 3-be(pf) elder **1s-be(pf)**  
 'Just when I thought I'd got it made, I was old.'

(Dene; Causa, Jean, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:55)

- (32) ...dene kéhle **thı́ı.**  
 person real **1s-be(pf)**  
 ‘... I became a real Dene.’

(Dene; Lefoin, Dora, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:105)

*Ts’ı́ı* occurs with a nominal complement, as in (33) and (34):

- (33) Dezoą **ʔehı́ı** ekúh ʔehdaro tambáa kóé gozhı́ı ną́hnde.  
 Child **1s-be(im)** then Big Island shore house inside 1s-live(im).  
 ‘When I was a child I lived in a house on the shores of Big Island.’

(Dene; Sabourin, Margaret, Sr., in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:9)

- (34) Iı́ téthela dechı́té **elı́.**  
 Spruce boughs be spread floor **3-be(im).**  
 ‘The floor was covered with spruce boughs.’ [Lit., ‘Spread spruce boughs were the floor.’]

(Dene; Loutit, Liza, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:15)

Forms of this verb may also occur with a verbal argument, as tense markers; in (35) the perfective third-person form marks its argument for past, whereas in (36) the optative form marks its argument as an unrealized future:

- (35) Phoebe léht’ée jọ ts’é nadele **ı́lé.**  
 Phoebe bread here to 3-bring customarily **past**  
 ‘Phoebe used to bring bread here.’

(Dene; Rice 1989:420)

- (36) Kaeht’ı́ néh daondı́h t’áh dechı́tah  
 1s-do like that(pf) if how with bush  
 náts’edéh godı́hshọ **olı́.**  
 ind-live(im) ar-1s-know(im) **3-be(opt).**  
 ‘If I had [gone to the mission] how would I have ever known how to live in the bush?’

(Dene; Sabourin, Jimmy, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:12)

### **máa-t’e ‘be’**

This verb, which is unattested in both Rice 1989 and Howard 1990, is intriguing, in that it bears a prefix whose function has not yet been described (Rice, pc 2007). The verb theme is cited without the indefinite inflection since this form does not appear in the present data. No second-person forms occur in the texts.



1979:8)

This verb may also occur with areal agreement, as in (41):

- (41) Káa kaondíh t'áh **máagúht'e**.  
Indeed like that with **ar-3-be(im)**.  
'That's the way it is.'

(Dene; Simba, Philip, in Thom, Blondin-Townsend & Macintosh Wah-Shee, 1979:35)

**hólı́ 'be made'**

This verb, the Dene cognate of the Tłı́chų Yatı́ *hohlè*, appears only twice in the narratives. It contains a form of the areal prefix. Howard (1990:326) states that (at least in the perfective) it can appear with object agreement; however, in the present data, it does not. It takes a nominal complement, as in (42) and (43):

<b>hólı́ 'be made'</b>	Subject
Mode	areal
Imperfective	hólı́ (35)
Perfective	mehólı́lé (Howard 1990)
Optative	hóolé (Howard 1990)

- (42) Zhọt'óh golódhéh hono ʔóó ɔkı́ t'áh nimbáa **hólı́**  
Long ago moosehide ten pt two with tent **ar-3-be made(im)**  
zhı́h náts'edéh,...  
inside 3-live(im)

'... long ago we lived in tents made of twelve moosehides....'

(Dene; Simba, Philip, in Thom, Blondin-Townsend & Macintosh Wah-Shee, 1979:35)

- (43) Káa lı́dí **hólı́**.  
Indeed tea **3-be made(im)**

'There is tea made.'

(Dene; Providence, John, in Thom, Blondin-Townsend & Macintosh Wah-Shee, 1979:93)

**gúłı́ ‘be’ (existential)**

This verb is roughly equivalent to English ‘there is’, and cognate to Tł̥chq̣ Yatı̀ *gòhłı́*. It consists of the areal prefix on the *-łı́* stem. The many variant forms may be dialectal. It takes a nominal complement:

<b>gúłı́ ‘be’ (existential)</b>	Subject
Mode	areal
Imperfective	gúłı́ (63) gúłı́łı́ (32) gółı́łı́ (56)
Perfective	gúlé (Howard) góolé (Howard) góíhłé (91)
Optative	no data

- (44) Góá łue łq̣ gúłı́, nidé dúle gots’ęndíh.  
 But fish many ar-3-be(im) if can ind-live(im)  
 ‘Still, as long as there are plenty of fish, we should be able to manage.’  
 (Dene; Landry, Joseph, in Thom, Blondin-Townsend & Macintosh Wah-Shee, 1979:63)  
 This verb can be used in the sense of ‘be born, be created’, as in (45) and (46):
- (45) ʔehch’úęnda k’eh setué gółı́łı́, séé  
 Pickerel Island on 1s-daughter ar-3-be(im) really  
 semq̣ zq̣ sets’ąndí.  
 1s-mother only 1so-3-tend(pf)  
 ‘When my daughter was born on Pickerel Island there was only my mother to tend me.’  
 (Dene; Causa, Rosalie, in Thom, Blondin-Townsend & Macintosh Wah-Shee, 1979:56)
- (46) Ekúh ndéh k’q̣ní nezı́ móodat’ı́, kí  
 Then land really good 3-appear(im) just  
 séé ndéh k’q̣q̣ gúłı́łı́ láondíh.  
 really land now ar-3-be(im) like.  
 ‘I remember the land being so beautiful then, as though it were newly created.’  
 (Dene; Bonnetrouge, Mary Agnes, in Thom, Blondin-Townsend & Macintosh Wah-Shee, 1979:32)



### 3.3 Dene Dzage

The Dene Dzage texts contain a great deal of variation in verb forms. Some of this variation is perhaps dialectal.

#### 3.3.1 Stems

In Dene Dzage, the imperfective and perfective of both copula stems bear a low (unmarked) tone: *-līn* and *-t'ē*. This situation differs from what we have seen in the other two languages, where the imperfective bears an unmarked tone, while the perfective and optative bear marked tones. Examples (49) to (51) illustrate imperfective or perfective verb forms based on *-līn* and *-t'e*.

**Table 4: Dene Dzage copula stems (Moore 2002)**

PA	Dene Dzage	Mode
	-līn	Imperfective
*-Lǎǎ	-līn	Perfective
	-lě	Optative
	-t'ā/-t'ē	Imperfective
*-T'E'	-t'ā/-t'ē	Perfective
	-t'ě	Optative

- (49) Met'āne **gúlīn** lā-am?  
 Its leaves **are** assert-question  
 '...their leaves are like so.'  
 (Dene Dzage; Dick, Maudie, in Moore 1999:5)
- (50) Kulā, kulā lénādāl **lēt'ē**.  
 Finally, finally she's coming back **it is**.  
 'Finally, she is coming back.'  
 (Dene Dzage; Dickson, John, in Moore 1999:41)
- (51) Medǎ' kehseh ādzi **dágúht'ē**.  
 His eyes first not aligned **it was**.  
 'His eyes were not aligned at first,'  
 (Dene Dzage; Dickson, John, in Moore 1999:71)

The optative bears a high tone in both cases: *-lě* and *-t'ě*; the latter is only attested unambiguously in two examples in the data, of which (52) is one:

- (52) **Déts'ut'ě** sǎ?  
**What are we going to do** then?  
 'What are we going to do then?'  
 (Dene Dzage; Dick, Maudie, in Moore 1999:19)

However, optatives formed on *-lě* are more common in the data: thirteen examples occur in all. Example (53) is typical:

- (53) Sechosé'                      ulé              sâ              eht'ini.  
 My down feathers   **will be**   must be   you all will do.  
 'Are you doing that so I can get my down feathers?'

(Dene Dzage; Carlick, Angel, in Moore 1999:153)

The stem shapes *-l̄in* and *-l̄ē* occasionally occur suffixed, as *-l̄ini*, *-l̄ina* or *-l̄ēi*. The form and function of these suffixes is not clear to me, and they will not be explored further here, but will remain a topic for future research.

The variation in vowel quality on the forms of the *-t'e* stems in Dene Dzage (*ā* versus *ē*) reflects dialect differences (Moore, pc 2007).

### 3.3.2 Inflectional Morphology

As in the other two languages of study, inflectional categories are signalled by prefixes. The areal prefix has the shape *gu-* or *ku-* in Dene Dzage (Moore 2002:555).

This section is devoted to the inflectional prefixes and the paradigms of the copulas in Dene Dzage.

#### 3.3.2.1 Aspectual and modal marking

In the copulas in Dene Dzage, the imperfective has no overt marking. The perfective is marked by a lengthening of the pre-stem vowel (*e-* for both stems): the imperfective forms of the bare third-person copulas are *el̄in* and *et'ē*, whereas the perfective forms are *ēl̄in* and *ēt'ē*. However, it is difficult to separate instances of perfective from imperfective for verbs based upon *-t'ē*, as the prefix *l̄ē-* (of unknown meaning), which occurs frequently in the texts, renders the vowel long in the imperfective as well. For verbs based upon *-l̄in*, the perfective prefix is generally evident: see the paradigms in 3.3.2.2 for examples.

The optative for both stems is marked with the prefix *u-*. It appears on the surface except on the second-person dual/plural forms, where it is obscured by the vowel of the personal agreement prefix; the contrast between (for example) first-person and second-person optative forms is illustrated by (54) and (55).

- (54) Echâ              etsihhāgé              gólí              **ust'ei**  
 Grandson   shared interest   even so   **I will be**  
 'We're in this together.'

(Dene Dzage; Dick, Maudie, in Moore 1999:5)

- (55) Esdege                      **nâht'ē**                      lēguht'ē  
 [If it wasn't] for me    **you all would be**    like that.  
 'If it wasn't for me you all would have been eaten.'  
 (Dene Dzage; Dick, Maudie, in Moore 1999:25)

### 3.3.2.2 Paradigms

The slightly different layout of the paradigms in this section (as opposed to those in 3.1.2.2 and 3.2.2.2) reflects the differences that separate Dene Dzage from the other two languages of study. First, Dene Dzage has full paradigms for both a dual/plural and a plural: the former may have either a dual or plural interpretation, while the latter, with exclusively plural meaning, is formed by the addition of the plural prefix *né-* (Moore 2002:441). Furthermore, the first-person dual/plural does not have an alternative indefinite sense, as its cognates do in the other two languages (Moore 2002:547-548).

**Dene Dzage Subject Agreement**

Person			
Number	1	2	3
Singular	s-	ne-	∅
Dual/plural	dze-/ts'e-	âh-/êh-	geh-
Plural	dzene-/ts'ene-	nâh-/nêh-	negeh-

**edzet'ē 'be'**

This is one of the two most common copulas in the Dene Dzage data. (*Ts'elīn*, following, is the other.) This verb theme, cognate with Tłıchǝ Yatı̀ and Dene *ats'ıt'e*, is found in the following forms in the data (numbered citations are from Moore 1999).

Perhaps due to Moore 1999 having no fewer than eight translators, identical forms of this verb may appear glossed as 'are' or 'were' in similar contexts. Together with the common prefix *lē-* already mentioned, this fact makes telling imperfective from perfective difficult. For this reason, I have not separated them in this paradigm or those of other verb themes based upon *-t'ē* in Dene Dzage.

edzet'ē 'be'		person		
mode	Number	1	2	3
imperfective/perfective	Singular	lēst'ē (101) lēst'ā (405) lāst'ā (321)	ent'ē (93) ent'ā (197)	et'ē (15) et'ā (213) lēt'ē (149) lāt'ē (277) lāt'ā (95) lat'ē (273)
	Dual/plural	no data	no data	giht'ē (273) lāgiht'ē (273) lēgiht'ā (339)
	Plural	dzenet'ē (173)	no data	no data
optative	Singular	ust'ei (5)	no data	no data
	Dual/plural	ets'ut'ē (23)	no data	no data
	Plural	no data	nāht'ē (25)	no data

The occurrence of the prefix *lā-* or *lē-* on some, but not all, of these forms suggests that we may be looking at two separate verbs. While the difference between *lā-* and *lē-* is perhaps dialectal, paralleling the difference in the stem (*-t'ā* versus *-t'ē*), the meaning of the prefix itself is difficult to determine. Forms with and without *lā-/lē-* are apparently used in similar circumstances, as in these two instances drawn from the same story and referring to the same incident:<sup>19</sup>

<sup>19</sup> Moore (pc, 2007) confirms that *lēt'ē* and *et'ē* are used identically.

- (56) I dene ełĩni ededezet, “Détā yedéhhĩn  
 That native person he is he’s worrying, “What happened he killed him  
 k’ét’ē et’ā béde ēdi.  
 like that it is food without.  
 ‘He was worried about what might have happened... ‘This man must  
 have killed him because he had no food.’”  
 (Dene Dzage; Charlie, Mary, in Moore 1999:263)

- (57) Dét’ā departner déhhĩn k’ét’ē lēt’ē.  
 What his partner he killed like that it is.  
 ‘His partner must have killed him.’  
 (Dene Dzage; Charlie, Mary, in Moore 1999:263)

Note that in both (56) and (57), the copula is being used with a verbal argument; that is, as an auxiliary; it may also be used with a nominal argument, as in (58).<sup>20</sup>

- (58) Ałā dehǵígé’ lēt’ē.  
 Not his wife it is.  
 ‘That’s not our wife.’  
 (Dene Dzage; Carlick, Angel, in Moore 1999:149)

The difference in this paradigm between *dze-* (as in *dzenet’e*) and *ts’e-* (as in *ets’ut’e*) is dialectal (Moore 2002:547).

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<sup>20</sup> *K’ét’ē* is a word of verbal form with an adverbial prefix *k’é-* ‘like’ appended to the stem *t’ē*. It is not a topic of investigation in this thesis.

**ts'eḷīn 'be'**

This is the Dene Dzage cognate of T̥h̥ch̥o Yat̥i and Dene *ts'ɨl̥*. Moore (2002) gives full paradigms in all modes for this verb, the most complete available at present for any copula in the three languages of study. There are, however, other forms that occur in Moore 1999 but not Moore 2002; these are mostly either dialectal variations (involving doublets like *dze-* and *ts'e-*) or instances of suffixed verb stems (see Section 3.1.1 above).

<b>ts'eḷīn 'be'</b>		person		
Mode	Number	1	2	3
Imperfective	Singular	eslīn (Moore 2002) eslīni (249)	enlīn (Moore 2002) enlīna (159)	elīn (Moore 2002) elīni (205)
	Dual/plural	dzēlīn (Moore 2002) dzēlīni (389)	ehlīn (Moore 2002) ehlīna (361)	gēlīn (Moore 2002)
	Plural	nédzēlīn (Moore 2002) néts'eḷīn (301) néts'eḷīni (307)	nēhlīn (Moore 2002)	nelīni (189) négēlīn (Moore 2002)
Perfective	Singular	ēslīn (Moore 2002)	īnlīn (Moore 2002)	ēlīn (Moore 2002)
	Dual/plural	dzēlīn (Moore 2002)	ēhlīn (Moore 2002)	gēlīn (Moore 2002)
	Plural	nédzēlīn (Moore 2002)	nēhlīn (Moore 2002)	négēlīn (Moore 2002)
Optative	Singular	uslé (Moore 2002)	unlé (Moore 2002)	ulé (Moore 2002) uléi (213) uléi (227) ulé' (235) ulei (359) ulēi (363)
	Dual/plural	dzulé (Moore 2002) dzulēi (111)	ehlé (Moore 2002)	gulé (Moore 2002)
	Plural	nédzúlé (Moore 2002)	nēhlé (Moore 2002)	négulé (Moore 2002)

In most cases the only difference between the imperfective and perfective forms is the presence of a long vowel in the latter – the *ē-* conjugation marker (Moore 2002:528). The combination of this affix with the high tone on the plural forms simply yields a tonally unmarked long vowel, except with the second person plural, which bears a long high vowel in the imperfective, becoming a falling tone in the perfective.

The quality of the initial vowel of the second-person singular form *īnlīn* is a topic for future research.

The plural forms bear an additional prefix, *né-*, in the “plural subject” position, distinguishing them from the dual/plural forms. This prefix can also appear in the absence of the dual/plural prefixes, as in the form *nelīni*.

This verb may be used with a nominal argument, as in (59), or as an auxiliary, as in (60):

- (59) Ts’édāne **néts’elīn.** Gutēniyē, Angel giyéhdī.  
 Children **we were.** While growing up, Angela Carlick they said.  
 ‘Angel [Carlick] told you about when we were children growing up.’

(Dene Dzage; Dick, Charlie, in Moore 1999:301)

- (60) Seni dehsīni sâ esyëndih **ulélí.**  
 Me if I’m speaking must be you will know me **it will be.**  
 ‘If I’m speaking to you, you will know it’s me.’

(Dene Dzage; Charlie, Mary, in Moore 1999:227)

#### **gúlīn ‘be (areal)’**

There are three variants of this verb, an existential based on *ts’elīn*. *Gúlīni* bears the suffix of unknown meaning alluded to in the section on stem shapes (3.3.1, above). *Gúlin*, with a short stem vowel, may be a dialectal variant, or perhaps a typographical error.

It is usually glossed ‘there is’. It takes a nominal complement, as in (61) and (62):

<b>gúlīn ‘be (areal)’</b>		Subject
Mode	Number	areal
Imperfective	Singular	gúlīn (117) gúlīni (79) gúlin (277)
Perfective	no data	no data
Optative	no data	no data

- (61) Jāni men dedéhtāni **lūge gúlīni,**  
 Here lake is located **fish are,**  
 ‘There where the lake is located, there are fish.’

(Dene Dzage; Dickson, John, in Moore 1999:79)

- (62) Dūlā **yédé** négutsedzi dé’ **gúlīn.**  
 Not **anything** they eat then **there is.**  
 ‘We have nothing left to eat.’

(Dene Dzage; Charlie, Mary, in Moore 1999:235)

However, verbal arguments are also possible, as in (63):

- (63) I k'aji debē Indian wédé atsén nénah'áh **gúlīn** lā.  
 That also sheep Indian always meat put there **is** assert.  
 'People always went there to hunt sheep. They made dry meat there.'  
 (Dene Dzage; Chief, Charlie, in Moore 1999:279)

### 3.4 Conclusions

In this chapter we have surveyed the forms in which we find copulas in the texts. We have seen that there are distinct differences among the three languages, not only in the forms of the verb stems and their inflections, but in the meanings carried by those inflections. We have seen that in each language there are four or five verbs derived from the stems *\*-Lǫǫ* and *\*-T'E'* that function as copulas, existentials and auxiliaries. Further, we have noted that existentials ('there is/are X') are distinguished by the following characteristics: they are formed exclusively on the stem *\*-Lǫǫ*; they bear the areal prefix (forms based on *\*-T'E'* with the areal prefix are not existential, but reflect agreement); and they have a single nominal argument rather than the possibility of two, as copulas do.

Covering the morphology of the copulas and their associated verbs has allowed us to recognize and classify the verb forms that occur in the corpus of data. This tool will be useful when we come to survey the types of complements that occur with these verbs, a task that is the focus of the next chapter.

## 4 The syntax of copulas and auxiliaries

This chapter concentrates on the types of syntactic constructions in which we find copulas and auxiliaries based upon the stems *\*-Lǃǃ* and *\*-T'E'*, and on differences in these constructions among the three languages of study. It provides surveys of copula and auxiliary constructions based upon complement types, examines the question of agreement between auxiliaries and their complements, and suggests syntactic structures to describe the observed patterns.

Section 4.1 is a survey of non-auxiliary constructions headed by *Lǃǃ-* and *\*-T'E'*-verbs. Sections 4.1.1 and 4.1.2 cover copulas with two (underlyingly) nominal arguments; the first of these sections deals with identificational uses of the copulas and the second with predicative uses. Section 4.1.3 addresses existential constructions, which have a single underlyingly nominal argument. This section also gives reasons for including existentials in this thesis despite the differences that separate them from copulas. Section 4.1.4 discusses copulas with adjectival complements, and suggests that there are syntactic reasons for considering them to be specialized verbs with a single nominal argument. Section 4.1.5 examines copulas with postpositional complements and discusses the difficulty of distinguishing these complements from adjuncts.

Section 4.2 is a similar survey of auxiliary uses. Auxiliaries formed upon *\*-Lǃǃ* and *\*-T'E'* (or rather, verbs that appear to be auxiliaries) fall into two broad categories: those that show agreement with the subject of their complement and those that do not. Section 4.2.1 examines the former type, and discusses the ways in which the data from the three languages of study differ in the distribution of this type of construction. It discusses two possible syntactic analyses: verb + auxiliary, and nominalized verb + copula, and the reasons that can be brought to support each analysis. Section 4.2.2 examines auxiliaries showing no agreement with the subject of their complement. It examines the syntactic roles that they fulfill, and demonstrates that the verb + auxiliary analysis is preferable for this kind of construction.

Section 4.3 summarizes the findings of the chapter and proposes syntactic analyses for the constructions discussed. Section 4.3.1 deals with the structure of copulas with nominal complements, 4.3.2 with existentials, 4.3.3 with adjectival constructions, 4.3.4 with verb + auxiliary constructions, and 4.3.5 with nominalized verb + copula. The conclusion is drawn that a single complement structure can be posited to account for all of these constructions, with the exceptions of TAM auxiliaries, which we will analyze as heading a TP node, and a small number of verbs based on the existential, which require an analysis using direct objects rather than complements.

### 4.1 Verbs based on *\*-Lǃǃ* and *\*-T'E'* with non-verbal complements

Non-verbal complements include nominals, adjectives, and postpositional phrases. We first examine the copulas with two nominal arguments, a subject and a complement.

### 4.1.1 Identificational uses

Copulas with nominal complements are used in asserting one of two things: an identification of the subject with the complement, or an inclusion of the subject in a class denoted by the complement. We will see in this section that the syntactic structures of these two uses of the copula are identical. Identificational uses of the copula are those in which an identity is asserted between two nominal arguments, one of which serves as the copula's subject and the other as the central part of the predicate. Examples (1) to (3) (from English) illustrate possible combinations of these arguments: nominal + nominal, nominal + pronominal (or *vice versa*), and pronominal + pronominal, respectively.

- (1) Mackenzie King was the tenth Prime Minister.  
 (2) She is my sister.  
 (3) That's her!

We find all of these combinations in the languages of study. Example (4) has two explicitly nominal arguments and asserts an identity between those two arguments: the assertion that the man designated *mebrother* is the same man designated by *Azele*.<sup>21</sup>

- (4) **Azele** gíhdī **mebrother** lēt'ē.  
**Azele** they say **her brother** he was.  
 'Azele was her brother.' [Lit., 'The one they call Azele was her brother.']  
 (Dene Dzage; Charlie, Lena, in Moore 1999:171)

Examples (5), (6) and (7) all contain a nominal and a pronominal argument and assert an identity between them. (Notice that in (5), the pronominal argument is expressed only in verbal subject agreement, while in (6) and (7) it appears both as agreement and as an independent pronoun.)

Example (5) makes the equation *I = Jesus of Nazareth*, and (6) the equation *That = my land*:

- (5) **Nazareth** got'jì **Zezi** aht'e.  
**Nazareth** dweller of **Jesus** 1s-be(im).  
 'I am Jesus of Nazareth.'  
 (Ṭḥcḥọ Yaṭị; Acts 22:8)

<sup>21</sup> *Me-*, the Dene Dzage third-person possessive suffix, is here appended to the English word *brother*. The use of English words in Dene Dzage narrative, especially when the audience knows some English, is considered a sign of eloquence and storytelling virtuosity in Dene Dzage culture (Moore, 2008).

- (6) **Edı**            **sendéh**            hóqt'e.  
**That**            **1s-land**            3-be(im)  
 'This is my land.'

(Dene; Landry, Joseph, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:66)

Example (7) asserts that *neni* 'you' is identical to *Súguyā*.<sup>22</sup>

- (7) **Neni**    **Súguyā**            negedī            í            ent'ē.  
**You**    **Súguyā**    they talk about    before    you are.  
 'Are you the Súguyā they talk about?'

(Dene Dzage; Caesar, Alfred, in Moore 1999:93)

Examples (8) and (9) both concern identities between two pronominal arguments. In (8), a subject expressed as verbal agreement is equated with a complement pronoun.<sup>23</sup>

- (8)            **I**            **lēt'ē.**  
               **That**        **it is.**  
 'That's the one.'

(Dene Dzage; Dickson, John, in Moore 1999:39)

while in (9), such an equation is negated:

- (9) **Eyı**    **aht'e**    -le.  
**That** **1s-be(im)** neg  
 'I am not he.'

(Ṭḥcḥo Yaṭi; John 1:21)

Notice that in all of the above examples, the copulas used are forms based on the stem *\*-T'E'*. Identificational uses of copulas based on the stem *\*-Ḷḷḷ* occur in Dene Dzage, as in (10); one example, with restricted use, appears in the Ṭḥcḥo Yaṭi data (11); none appear in the Dene data.

- (10) **I**            **meyéhígé'**            **elīni**            í            mek'ugudedéh            gíhdī.  
**That**    **her husband**    **he was**    before    he called for her            they say.  
 'Her former husband called out to her...'

(Dene Dzage; Moore 1999:239)

<sup>22</sup> Or perhaps to *Súguyā negedī* 'the Súguyā that they talk about'. In any case, both arguments seem to be DPs.

<sup>23</sup> It is improbable that the pronoun *i* 'that' is the subject of the copula, as there are no other examples of a copula appearing with a subject but without a complement in any of the data from the languages of study.

- (11) **Cheko ehŋ ha.**  
**young man 1s-be(im) fut**  
 ‘I will be the young man.’ (For example, if one is acting in a play (Siemens, pc 2007)  
 (Tɬɬchɔ Yatù; MS 22a)

#### 4.1.2 Copulas marking class inclusion

A copula with two nominal complements may assert not an exact identity between them, but the inclusion of one in a class designated by the other.

In all three of the languages of study, sentences asserting class inclusion show no overt differences in construction from those asserting identity, as can be seen by comparing the previous examples to (12) through (17), all of which assert class inclusion:<sup>24</sup>

- (12) **K’egedèedòò agɬt’e Tatsò hadi.**  
**around-3ps-travel-nml-person-poss 3-be(im) Raven 3-say**  
 ‘“They are strangers [Lit., ‘travelling people’],” said Raven.’  
 (Tɬɬchɔ Yatù; Chocolate and Wiebe, n.d.:18)

- (13) **Eyɪ dɔ naèhtlaà wèneelà nɪdè dèe-ts’ò-k’òowo**  
**That person 3-leave(im) 3o-2s-allow(pf) if land-to-lord**  
**Caesar weàgɬa nelɪ nìle.**  
**Caesar 3-friend 2s-be(im) neg**  
 ‘If you release this man, you are not [Lord] Caesar’s friend.’  
 (Tɬɬchɔ Yatù; John 19:12)

- (14) **Kaska Indian lat’ē, my daddy.**  
**Kaska Indian he is, my daddy.**  
 ‘My daddy was a Kaska Indian....’  
 (Dene Dzage; Chief, Charlie, in Moore 1999:273)

- (15) **Ts’édāne néts’elīn. Gutēniyē, Angel giyéhdī.**  
**Children we were. While growing up, Angela Carlick they said.**  
 ‘Angel [Carlick] told you about when we were children growing up.’  
 (Dene Dzage; Dick, Charlie, in Moore 1999:301)

<sup>24</sup> Definite and indefinite articles do not occur in these languages, nor nominal plural markers; it is therefore an expected result that we do not find the syntactic distinctions between identification and class inclusion exemplified by English *He is the chief/He is a chief* or *They are the strangers/They are strangers*. Cf. Wilhelm (2006).

- (16) Sedené lah **seʔqhndadhé** **hóqt'e** gots'əh sɪ  
 1s-person foc **1s-elder** **ar-3-be(im)** and 1s  
 lah kíı ts'élı **k'ónı** **máıt'e**.  
 foc just girl **really** **3-be(im)**

‘My husband was an old man and I was still a young girl.’

(Dene; Loutit, Liza, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:18)

- (17) Zhót'óh kagedı, **dene** **nezu** **ts'ıı** néh tháá  
 Long ago 3p-say(im) **person** **good** **ind-be(im)** if long  
 nezu gots'əndıh ıle néh tsıats'edəndah.  
 good ind-live neg if ind-suffer

‘Long ago we believed that if you were a good man you would live a long and rewarding life but if not you would suffer.’

(Dene; Simba, Philip, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:37)

Also note that copulas based on both *\*-Lııı* and *\*-T'E'* occur marking class inclusion: Examples (12), (14) and (16) are based on the former, (13), (15) and (17) on the latter.

### 4.1.3 Deverbal nouns as complements of copulas

Subject agreement can be problematical to determine in Athabaskan languages, particularly in narrative text where most verbs occur in the third person. The third person subject is unmarked in these languages (or marked with a zero morpheme). Therefore, when a lexical verb that is unmarked for subject is followed by a form of *\*-Lııı* or *\*-T'E'* that is similarly unmarked, there are three possible analyses of the combinations of subject agreement:

- Main verb with third-person subject followed by uninflected particle;
- Main verb with third-person subject followed by auxiliary agreeing with the same third-person subject;
- Main verb with third-person subject followed by auxiliary agreeing with a different third-person subject.

For this reason, in this section we will consider only forms that show explicitly marked subject agreement. This includes all forms other than the unmarked third person: all explicit plurals, all first- and second-person forms, and forms with areal agreement.

It is not uncommon to find cases where there is explicit subject agreement marking on the second verb in a two-verb construction. Examples (18) to (22) are instances:

- (18) Gots'ò K'àowo, dɔ hazòò gidzeè **k'èızo** **anet'e**.  
 1p-to Lord person everywhere 3p-heart **2s-know(im)** **2s-be(im)**  
 ‘Lord, you know everyone’s heart.’

(Tłıchɔ Yatı; Acts 1:24)

- (19) Sedené gots'əh setá dene nezu nágezéh máagit'é  
 1s-person and 1s-father person good 3p-hunt(im) 3p-be(pf)  
 'My husband and father were good providers...'

(Dene; Sabourin, Margaret, Sr., in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:11)

- (20) Dene nezu náázéh gots'əh ʔehdzoo ʔahʔɪ ilé.  
 Person good 3-hunt(im) and trap 3-do(im) 1s-be(pf)  
 'I was a good hunter and trapper.'

(Dene; Sabourin, Jean Marie, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:78)

- (21) Gee Mom, dénh̄t'ā ent'ā esəhdī?  
 Gee Mom, how are you you are all alone?  
 'Gee Mom, why are you all alone?'

(Dene Dzage; Caesar, Alfred, in Moore 1999:87)

- (22) Ahdege gésdah lēst'ē.  
 Up there I walk I am.  
 'I was walking way up there.'

(Dene Dzage; Caesar, Alfred, in Moore 1999:101)

It is possible that rather than a sequence of verb + auxiliary, these examples are actually DPs followed by copulas that take them as arguments. The properties of (19) and (20) are suggestive. It is difficult to see what role is played by the word *dene* if it is not heading the complements of *máagit'é* and *ilé*. In these two sentences, the words preceding the copular verbs are translated with English DPs. Under the DP + copula analysis, the meaning of (18) would be roughly 'Lord, you are someone who knows everyone's heart' and of (22), 'I was someone walking up there.'

There are examples from fieldwork data to support this analysis. Consider (23):

- (23) Sekwia sù wegh̄nièhtɔ aht'e.  
 1s-grandchild-dim very 3o-1s-love(im) 1s-be(im)  
 'I'm the kind of person who really loves my little grandchild.'

(Tłı̄chɔ Yatı̄; MS 99)

The translation given by Mary Siemens suggests that the complement of *aht'e* may be a DP. While we should certainly not rely on an isolated translation, this example forms half of a minimal pair. Contrasting it with (24), we find that there is certainly a distinction being made between a predicate best translated as a characterizing statement that includes a subordinate VP (23) and a predicate translated as a simple un subordinating VP (24).

- (24) Sekwia sù wegh̄nièhtɔ hɔt'e  
 1s-grandchild-dim very 3o-1s-love(im) 3-be(im)

‘I really love my little grandchild very much.’

(Tɬɨchɔ Yatì; MS 98)

Further evidence for this analysis can be seen in another minimal pair, (25) and (26). Again, the translations suggest that the complement of *agyt'e* in (25) is a DP, while the complement of *hɔt'e* in (26) is not:<sup>25</sup>

- (25) ?Behk'ò t'asɨ̀ k'edè agɨt'e.  
 Seagull somewhere 3-fly(im) 3p-be(im)  
 ‘They are migrating seagulls.’

(Tɬɨchɔ Yatì; MS 76)

- (26) Behk'ò t'asɨ̀ k'edè hɔt'e.  
 (rep. 7) Seagull somewhere 3-fly(im) 3-be(im)  
 ‘Seagulls fly somewhere else.’

(Tɬɨchɔ Yatì; MS 75)

In Tɬɨchɔ Yatì, deverbal nouns are indicated by a lengthening of the final vowel (Saxon, 2000:94). In elicitation, this lengthening tended to be difficult for me to hear, resulting in some inaccurate transcriptions. Fortunately, Mary Siemens did correct a number of my inaccuracies, and one of the corrected sentences is part of another minimal pair, parallel to those cited as (23-24) and (25-26). Example (27) is the sentence as originally transcribed; (28) is the version corrected by Mary Siemens:

- (27) \*ɬɨwe ghàts'ɨ̀dà ats'ɨt'e.  
 Fish 1p-look at(pf) 1p-be(im)

(Tɬɨchɔ Yatì; MS 121)

- (28) ɬɨwe ghàts'ɨ̀dàa ats'ɨt'e.  
 Fish 1p-look at(pf)-nml 1p-be(im)  
 ‘We are the people who looked at the fish.’

(Tɬɨchɔ Yatì; MS 121a)

Ms. Siemens judged (27) to be ungrammatical because the verb in such a case should end in a long vowel. It is my contention that this long vowel is the nominalizing suffix. If this is so, (28) and (29) are a minimal pair, and the distinction between them is likely to be the same distinction that separates (23) from (24) as well as (25) from (26):

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<sup>25</sup> Mary Siemens judged (66) “awkward”. It is possible that the awkwardness derives from the fact that the third-person plural subject marker is ordinarily restricted to human subjects or personified individuals (Saxon, pc, 2007).

- (29) Łıwe ghàts'ı̀dà họt'e.  
 Fish 1p-look at(pf) 3-be(im)  
 'We did see the fish.'  
 (T̥ı̥ch̥q Yatı̥; MS 119)

Since the fieldwork for this thesis was on T̥ı̥ch̥q Yatı̥ alone, similar minimal pairs are lacking in the Dene and Dene Dzage data. Nevertheless, on the basis of the T̥ı̥ch̥q Yatı̥ data, we will assume for the purposes of this thesis that apparent verbal complements of inflected copulas are actually deverbal nouns.

#### 4.1.4 Existentials

Existential verbs, with a single nominal argument, are (as we have seen in Chapter 3) invariably marked with the areal prefix, in a manner parallel to the English existential construction *there is/are*.<sup>26</sup> The function of these verbs is to assert the existence of an entity denoted by the single nominal argument of the verb. Existentials are based only upon the \*-L̥ı̥ı̥ stem.

Examples of existential sentences follow, in (30) to (32):

- (30) Kuhini kudoge ługe dēt'ı̥ni gebōdé' gúlın.  
 Us for us fish do this **their boat it exists**.  
 'They seem like fish to us, but they have a boat.' [Lit., 'their boat exists']  
 (Dene Dzage; Dickson, John, in Moore 1999:37)
- (31) K'ála ı̥le góá shı̥h k'eh jíedhá ı̥q góı̥ı̥.  
 Still neg but mountain on **blueberry lots ar-be(im)**  
 'Even though it was the wrong time of year, there were blueberries on the slopes.'  
 (Dene; Constant, Adeline, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:75)
- (32) Jacob, Egypt nək'e ı̥e gòhı̥ı̥ gedı̥  
 Jacob, Egypt land-on **grain ar-be(im)** 3p-say(im)  
 ghq ı̥ıkw'o t'à  
 about 3-hear because  
 'But when Jacob heard that there was grain in Egypt, ...'  
 (T̥ı̥ch̥q Yatı̥; Acts 7:12)

There are also a number of verbs resembling existentials in bearing the areal prefix and having a single nominal argument. They are also formed exclusively on the \*-L̥ı̥ı̥ stem; (33) to (36) are instances of such verbs:<sup>27</sup>

<sup>26</sup> Connections between existentials and locatives are common cross-linguistically (Francez, 2006).

<sup>27</sup> There are no instances in the Dene Dzage narratives of verbs of this sort.

- (33) Káa lídí hólí.  
Just tea ar-3-be(im)  
'There is tea made.'  
(Dene; Providence, John, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:93)
- (34) Nihshih kóé goch'aa nıdháá dechıtah segúıı.  
Fort Rae ar-outside far bush 1so-ar-be(im)  
'I was born quite a ways out of Fort Rae, in the bush.'  
(Dene; Denetre, Gabriel, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:25)
- (35) Ededı wet'òò t'asıı hazòò hòèıı hót'e.  
refl 3-through thing all ar-be(im) 3-be(im)  
'All things were made through him.'  
(Tłıchq Yatıı; John 1:3)
- (36) Dq weghoò łq nıdè dani k'achı wegòhıı li?  
Person 3-age many if how again 3o-ar-be(im) qn  
'How can a man be born when he is old?'  
(Tłıchq Yatıı; John 3:4)

#### 4.1.5 Copulas with adjectival complements

One specialized use of the copulas is in association with adjectives. Adjectives are a small class (and perhaps a closed one) in these languages. They are used with copulas in Tłıchq Yatıı and Dene.<sup>28,29</sup>

Examples (37) to (40) are instances of adjective + copula constructions.

- (37) Kıı sembadı Lıza edáondıh? Ededı shu ezhaelı.  
Just 1s-sister Liza how 3s also sick-3-be(im)  
'How is my sister Liza? He went on, she is sick.'  
(Dene; Sabourin, Jimmy, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:60)

<sup>28</sup> Rice (1989) mentions that *zeyá* 'sick' "can be used as an independent verb. ... This is the only one of the adjectives that is used in this way." This is apparently not true in Tłıchq Yatıı: Mary Siemens provided *edı* as the unemphatic translation for 'it is hot.'

<sup>29</sup> The Dene Dzage narratives do not include sentences with adjectives, and Moore (2002) does not mention them.

- (38) **Ezhathlé** gots'əh ezhıı dechıtah etenı k'ə́é sebíah  
**Sick-1s-be(pf)** and that bush trail on 1s-baby  
 medheé góııı.  
 3s-death ar-3-be(im)

'I became ill and my baby was born dead on the trail.'

(Dene; Constant, Adeline, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:77)

- (39) **Ezı** **ehıı.**  
**crazy** **1s-be(im)**

'I'm nuts.'

(Tłıchq Yatıı; Saxon & Siemens 2007)

- (40) **ızhàgıııı.**  
**Shy-3p-be(im)**

'They're shy.'

(Tłıchq Yatıı; MS 96)

Notice that in all the examples above, the copula used is a form of *\*-Lııı*. This is the more common of the copula stems used with adjectives. However, it is certainly possible to use *\*-T'E* stems with adjectives, as (41) to (44) demonstrate:<sup>30</sup>

- (41) **t'asą** **ıqt'e**  
**difficult** **3-be(im)**

'It is difficult.'

(Dene; Rice 1989:389)

- (42) **dásó** **ıqt'e** yenıwe  
**strange** **3-be(im)** 3-think(im)

'... she thought how strange it was...'

(Dene; Rice 1989:1347)

- (43) **ıxə́** **edza** **hqt'e** ıłè.  
 Yesterday **cold** **3-be(im)** past

'It was cold yesterday.'

(Tłıchq Yatıı; MS 60)

<sup>30</sup> It is possible that (43) and (44) are actually auxiliary uses of *hqt'e*, with *edı* and *edza* as main verbs.

- (44) **Edi hɔt'e.**  
**Hot 3-be(im)**  
 'It is hot' (weather; emphatic)  
 (Tɬɪchɔ Yatɪ̀; MS 45)

In general, there seems to be a distinction between use of the two stems *\*-Lɬɪ* and *\*-T'E* in copula + adjective combinations: the former takes animate complements and the latter inanimate. Minimal pairs exist; for instance, (44)-(45) and (46)-(47):

- (45) **Edi elɪ.**  
**Hot 3-be(im)**  
 'S/he has a fever.'  
 (Tɬɪchɔ Yatɪ̀; MS 14)

- (46) **Eyaelɪ.**  
**Sick-3-be(im)**  
 'She's sick.'  
 (Tɬɪchɔ Yatɪ̀; MS 93)

- (47) **Eya hɔt'e.**  
**Sick-3-be(im)**  
 'It hurts.'  
 (Tɬɪchɔ Yatɪ̀; MS 93a)

Although (48) would appear to be evidence against this generalization, such may not in fact be the case:

- (48) **dásó ʔɔt'e**  
**strange 3-be(im)**  
 'S/he is confused, mixed up'  
 (Dene; Rice 1989:389)

Comparing (48) to (49), we see that the structure of (49) suggests that (48) may have an implied PP adjunct, since (49) has such an adjunct and the forms of (48) and (49) are otherwise identical. Perhaps we may therefore assume that the implied adjunct in (48) is *wegha*. The literal (as opposed to the idiomatic) meaning of (48), if this assumption is correct, would then be 'It is not clear to him/her' or 'It is confusing for him/her'.

- (49) **segha dásó ʔɔt'e**  
**1s-for strange 3-be(im)**  
 'It is not clear to me'  
 (Dene; Rice 1989:389)



- (55) \*Chekoa      **ḷḷza**      *dìi*      **gḷḷḷ.**  
 Child    **shy/ashamed**    really    **3p-be(im)**  
 (Tḷchḷ Yatì; MS 40)

The word *sii* normally precedes an expression that it modifies, while *dii* follows it. However, the sentences in (53) to (55) are ungrammatical, a fact that seems to indicate that neither *ḷḷza* nor *gḷḷḷ* is acting alone as a main verb.<sup>32</sup> Conversely, (56) and (57), where *sii* and *dii* are placed respectively before and after the entire adjective + copula construction, are grammatical:

- (56) Chekoa    *sii*      **ḷḷza**      **gḷḷḷ.**  
 Child    very    **shy/ashamed**    **3p-be(im)**  
 ‘The children are very shy/ashamed.’  
 (Tḷchḷ Yatì; MS 42)

- (57) Chekoa      **ḷḷza**      **gḷḷḷ**      *dii*.  
 Child    **shy/ashamed**    **3p-be(im)**    really  
 ‘The children are really shy/ashamed.’  
 (Tḷchḷ Yatì; MS 41)

The suggestion supported by (52) to (57) (in Tḷchḷ Yatì) seems to be contrary to the evidence in Rice (1989:391) in Dene based on epenthetic syllables. Furthermore, we can draw some evidence of native speakers’ intuitions on adjective + copula constructions from the preference of multiple writers of both Tḷchḷ Yatì and Dene for writing such constructions as single words ((50)–(51) and (37)–(38), respectively). There may be a process of lexicalization under way. Perhaps the best conclusion we can make from such conflicting evidence is that the jury is still out on the issue of whether adjectives in such constructions are words in their own right or compounded with the verb.

#### 4.1.6 Copulas with postpositionals

These constructions are somewhat difficult to categorize. While it is common to find examples of copulas following postpositional phrases in all three of the languages of study, it is sometimes difficult to determine whether such PPs are complements of the copulas or rather adverbial adjuncts.<sup>33</sup>

<sup>32</sup> *ḷḷza* is an adjective, not a verb, but as Rice (1989:391) indicates, the adjective *eya* in Dene can occur alone as a verb. In Dene, at least, *eya* is apparently alone in this respect, but it is as well to allow for the possibility that the situation might be different in Tḷchḷ Yatì. In any case, our purpose here is to investigate the grammaticality of material intervening between the adjective and the copula.

<sup>33</sup> Only one example of a possible PP complement exists in the Dene data (cited as Example 48).

#### 4.1.6.1 Complement PPs

Examples (58) to (61) are instances of copulas with PPs:

- (58) **Semok'èè aht'e.**  
**1s-mother-according to 1s-be(im)**  
 'I obey my mother.'  
 (T̥ichq̥ Yatì; MS 74)
- (59) **Yek'e ɟt'e-le.**  
**4-according to 3-be(im)-neg**  
 'He doesn't obey her.'  
 (T̥ichq̥ Yatì; MS 72)
- (60) Gots'edítt̥h'ɛ gots'ɛh **gok'eats'it'e** lah séé  
 3po-ind-listen and **3po-according to-ind-be(im)** foc very  
 met'áodééʔáh máɪt'é.  
 important 3-be(pf)  
 'It was important to listen to them and obey.'  
 (Dene; Sabourin, Margaret, Sr., in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:8)
- (61) Yatì nàtsoo t'à ɲn̥ɪɲ̥ ts'ò gode n̥dè  
 Word 3-be strong(im)-nml because evil spirit to 3-talk(im) if  
**gɪk'èɟt'e.**  
**3p-according to**  
 'He even gives orders to evil spirits and they obey him.' [Lit., 'When he scolds (says strong words to) evil spirits, they obey.']  
 (T̥ichq̥ Yatì; Saxon, pc, 2007)

These four examples are illuminating in a number of ways. They all include an idiom that has come to be at least partially lexicalized with the meaning 'obey'. In support of the analysis of the PP component of this idiom as a complement rather than an adjunct, consider that not only is material intervening between the PP and the copula apparently disallowed,<sup>34</sup> (whereas adjuncts tend to be free to move) but the close association of the PP with the copula has resulted in a process of fusion: compare the fully separate PP and copula in (58) with, on the one hand, the unusual third-person copula form in (59) (where one might expect *hɔt'e*) and, on the other hand, the fused forms in (60) and (61). It is my suggestion that the verb form in (59) represents an intermediate step between the separate and fused forms.

<sup>34</sup> For instance, in the T̥ichq̥ Yatì New Testament, *all* instances of this idiom are written as single words; hence, obviously, the PP and the copula are never separated by other material in this text.

Among similar constructions, where a PP must either be considered a complement of the copula or part of the same verb word, we can list *wegha elɿ*, ‘be for’, ‘belong to’, exemplified in (62) and (63):

- (62) Amìi k'èweè'tɿ gɿlɿlɿ sɿi gixè sɿghà hɔt'e;  
 Who 3-be humble(im) 3p-be(im) focus 3p-with good 3-be(im)  
 dèè gɿghaelɿ ha.  
 earth 3p-for-3-be(im) fut  
 ‘Blessed are the meek, for they will inherit the earth.’ [Lit., ‘... the earth will belong to them.’]

(Tɿchɔ Yatì; Matthew 5:5)

- (63) Sets'ò nàgòneehgè xè seghàsɔɿdɿ nɿdè  
 1s-to 2s-kneel down with 1so-2s-praise if  
 eyɿ hazɔò **neghaelɿ** ha.  
 this all 2s-for-3-be(im) fut  
 ‘So if you worship me, it will all be yours.’

(Tɿchɔ Yatì; Luke 4:7)

From the Dene Dzage data, we have a parallel example in (64):

- (64) Dédu kulāhuné' kēts'edih yē ghah giht'ē.  
 Now finally we understand **what for they are.**  
 ‘Now finally we understand why that is.’

(Dene Dzage; Chief, Charlie, in Moore 1999:273)

#### 4.1.6.2 Ambiguous PPs

Examples (65) and (66) contain a copula in combination with a PP:

- (65) Nòhtsɿ wets'ihɔò **Zezi-Kri wexè aaht'e.**  
 God 3-because of **Jesus Christ 3-with 2p-be(im)**  
 ‘It is because of him that you are in Christ Jesus.’

(Tɿchɔ Yatì; 1 Corinthians 1:30)

- (66) Ekò wexèht'eè **dzeh yù ats'ɿt'e** nɿdè  
 Then 3-same **light inside 1p-be(im)** if  
 ‘But if we walk in the light...’

(Tɿchɔ Yatì; 1 John 1:7)

It is possible that the PPs in these constructions actually are adverbial adjuncts with (abstract) locative meaning rather than complements of the copulas: the meaning would then be essentially ‘to exist while in/at’. Against this, we have the fact that in Tɿchɔ Yatì and Dene, assertion of existence in a location normally is expressed either with a verb expressing its manner of being in the location, or with an existential copula form, containing the areal prefix. These two strategies are shown in (67) and (68):

- (67) **Tia** **gà** ekwò eyaelj̄ **wheda / whetj̄.**  
**Water-dim beside** caribou sick-3-be(im)-nml **3-sit(im) 3-lie(im)**  
 ‘There is a sick caribou beside the slough.’ (sitting/lying)  
 (T̄j̄chq̄ Yat̄i; MS 48)

- (68) K’ála ìle góá **shíh** **k’eh** jíedhá łq̄ **gó̄l̄j̄.**  
 (rep. 20) Still neg but **mountain on** blueberry lots **ar-be(im)**  
 ‘Even though it was the wrong time of year, there were blueberries on the slopes.’  
 (Dene; Constant, Adeline, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:75)

Furthermore, if the PPs that we have seen are complements are indeed complements, they fit a general pattern: all other copulas that we have examined appear to have two arguments—a subject and a complement.

#### 4.1.6.3 Adjunct PPs

There are numerous examples of PPs occurring with copulas in a far looser relationship, where the PP is almost certainly an adverbial adjunct rather than a complement. All of the PP + copula constructions from the Dene Dzage data are of this type. Examples (69) and (70) are samples of this sort of construction: in (69) the existential clearly has a nominal argument (*sezhaa nq̄dedi*), and therefore the PP must be an adjunct, while in (70), the translation makes it clear that we are not dealing here with a structure like that of (62) to (64) (that is, the sentence is not asserting that the listeners belong to the speaker).

- (69) Sezhaa nq̄dedi zq̄ sáá **náid̄igod̄j̄sho** t’áh **gó̄l̄j̄.**  
 1s-child youngest only evid **doctor with ar-3-be(im)**  
 ‘Only my youngest was delivered by a doctor.’  
 (Dene; Gargan, Marie T. in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:91)

- (70) **Esdege** **nâht’ē** lēguht’ē  
**[If it wasn’t] for me you all would be** like that.  
 ‘If it wasn’t for me you all would have been eaten.’  
 (Dene Dzage; Dick, Maudie, in Moore 1999:25)

In each of these sentences, the PP is clearly modifying the entire clause rather than serving as a complement to the copula, and must therefore be considered an adjunct. However, as this chapter is concerned with the structure of copulas and their complements, we will not pursue adjuncts any further here.

## 4.2 Uses of auxiliaries formed from *-lj* and *-t'e*

Forms of verbs based on both *\*-Lǰǰ* and *\*-T'E'* stems occur in post-verbal position in all three of the languages of study. As mentioned in the introduction to this chapter, these verb forms sometimes show agreement with the subject of their complement and sometimes do not. In both Tǰchǰ Yatì and Dene, there is evidence to support an analysis of the former type as cases of copulas taking a nominalized verb as an argument. In Dene Dzage, the case may be somewhat more complex. Post-verbal forms that do not show such subject agreement (that is, particles derived from copular verbs) are more easily analyzed as auxiliaries taking a main verb as complement.

In this section we also delineate and exemplify the syntactic uses of auxiliaries. They fall into two categories: those that mark tense-aspect-mode (schetic) categories and those that mark focus or “emphasis”.

### 4.2.1 Post-verbal forms showing subject agreement

In Section 4.1.3 we made the claim that inflected copula forms with apparent verbal complements are in fact deverbal noun + copula constructions, not auxiliary verb constructions. Therefore we will not treat them here, but move on toward uninflected post-verbal forms.

### 4.2.2 Post-verbal forms without subject agreement

A common construction in the data is one in which the second verb (based on *\*-Lǰǰ* or *\*-T'E'*) is unmarked for subject (or zero-marked for third person subject, depending on the analysis one chooses). Examples (65), (67) and (70) are instances of this sort of construction including *hǰt'e* in Tǰchǰ Yatì; however, these constructions are common in Dene and Dene Dzage as well.

Table 5: Post-verbal forms without subject agreement

Stem	Language		
	Tǰchǰ Yatì	Dene	Dene Dzage
<i>*-Lǰǰ</i>	<i>ǰlè</i> <i>welè</i> <i>wilì</i> <i>elì</i> <i>welì</i>	<i>ǰlé</i> <i>olì</i> <i>ǰlélé</i> <i>olé</i> <i>wolé</i> <i>ǰlí</i>	<i>elìn</i> <i>ulé</i> <i>uléi</i> <i>uléi</i> <i>uléi</i> <i>uléi</i> <i>uléi</i>
<i>*-T'E'</i>	<i>hǰt'e</i>	<i>ǰt'e</i> <i>hǰǰt'e</i> <i>mǰt'e</i> <i>mǰt'é</i>	<i>lét'ē<sup>35</sup></i> <i>et'ē</i>

A common characteristic of all the items that appear in Table 5 is that they impart either TAM meaning or emphasis (focus). The forms based on *\*-Lǰǰ* all convey TAM information, with the possible exception of Dene Dzage *elìn*; those based on *\*-T'E'* convey emphasis.

<sup>35</sup> The long vowels in the Dene Dzage forms derived from *\*-T'E'* may appear as either *ā* or *ē*; the difference is dialectal (Moore, pc 2006).

### 4.2.2.1 Past tense markers

In the Tłıchǰ Yatı̀ and Dene data, the most commonly occurring of the forms in the table are *ı̀lè* (Tłıchǰ Yatı̀) and *ı̀lé/ı̀lè/lé* (Dene), the third-person perfective forms of *ts'ı̀lı̀*. Their complements show subject agreement, though the auxiliaries do not. Examples of this construction are shown in (71) and (72):

- (71)        **sek'eohdhe**        **ı̀lé,**  
               **1s-travel(im)**    **past**  
               ‘I used to travel.’

(Dene; Minoza, Madelaine, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:27)

- (72)    Goxı́ nek'èè        k'ets'edè        ha        ts'ı̀wǰ        t'à,  
           1p   2s-after   1p-walk around(im)   fut   1p-want(im)   because  
                   t'ası̀        hazǰǰ        wedǰ        **ats'ı̀là**        **ı̀lè!**  
                   thing        all        3-without    **1p-do(pf)**    **past**  
                   ‘We have left everything to follow you!’

(Tłıchǰ Yatı̀: Matthew 19:27)

In (71), the complement of the auxiliary is imperfective; according to Rice (1989:420), this construction in Dene indicates that “the action is completed before the present time.”<sup>36</sup> In Tłıchǰ Yatı̀, this construction refers to events that “took place in the past” (Marinakis et al., 2006:147). However, when *ı̀lé* has a perfective complement, as in (72-73), “[the] action [is] completed prior to the time specified by the verb” in Dene (Rice 1989:420). As we might therefore expect, in (72-73) we are dealing with a past perfect form expressing anteriority.

- (73)        ʔeyı́                ʔacht'ı́                **ı̀lí**  
               there            1s-went                **past**  
               ‘I had been there.’

(Dene; Gargan, Alfred, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:85)

In Tłıchǰ Yatı̀, there are similar examples, as in (74):

<sup>36</sup> As the glosses in Moore (1999) are not morpheme-by-morpheme, and as no Dene Dzage verbal dictionary exists, identifying the aspect of verbs in the Dene Dzage data is difficult or impossible for me. Hence, the discussion of the interaction of auxiliaries with the aspectual marking of their complements will focus on Dene and Tłıchǰ Yatı̀ forms.

- (74) Eyı ts'èko sù ɲìŋɲ ɬòhdı yeyı gots'q  
 That woman focus evil spirit seven 4-inside ar-from  
**xàdeèzhì ɲlè.**  
**3-drive out(pf) past**

‘...Mary Magdalen, out of whom he had driven seven demons.’

(Tɬıchɔ Yatı̀; Mark 16:9)

In context (the appearance of Christ before Mary Magdalen) it is clear that the driving-out predates the appearance by a considerable time. However, there are many examples of this construction in Tɬıchɔ Yatı̀ that seem to be closer in meaning to the English simple past, without any apparent anteriority. Contrast (74) with (75):

- (75) Naxıkwı nàtso t'à, Moses eyı nàowo **naxıghàɲɔ ɲlè.**  
 2p-head strong because Moses that law **2po-3-give(pf) past**

‘It was because your hearts were hard that Moses wrote [Lit. ‘gave’] you this law.’

(Tɬıchɔ Yatı̀; Mark 10:5)

There is no apparent anteriority in the final clauses in (75); indeed, if anything, the sentence’s initial clause is anterior to the final one. It would thus seem that Rice’s characterization of structures in Dene consisting of a perfective main verb with *ɲlé* may not be sufficient for Tɬıchɔ Yatı̀.

The past tense marker also occurs after optative main verbs in Dene, as in (76). Rice (1989:421) describes this structure as expressing “an unrealized event in the past.”<sup>37</sup>

- (76) Nets'é ráwohdı ɲılé  
 2s-to 1s-give help(opt) past  
 ‘I was supposed to help you’

(Dene; Rice 1989:421)

Unrealized past events in Tɬıchɔ Yatı̀ are rarely, if ever, expressed in the data with this structure. The structure normally used is an imperfective verb followed by the future particle *ha* and *ɲlè* (Marinakis et al., 2006:149), as in (77) and (78):

- (77) ...nı tı **wɲkè ha ɲlè.** Hanı-ıdè tı  
 2s water **3o-2s-ask(im) fut past** if so water  
 wet'à ts'eedaa sı **neghàyeedi ha ɲlè**  
 3-with ind-live(im)-nml foc **2so-3-give(im) fut past**

‘...you would have asked him [for water] and he would have given you living water.’

(Tɬıchɔ Yatı̀; Mark 4:10)

<sup>37</sup> Example 76 is the only instance of this construction that appears in the present Dene data.



- (82)    ʔeyi    ʔaht'ɨ    olɨ  
           there **1s-go(im) fut**  
           'I will definitely be there.'  
 (Dene; Rice 1989:418)

- (83)    megháehnda    ile    lɔ    nɨdé    dahetla    olɨ  
           3o-1s-see(im) neg truly if **3-get loose(im) fut**  
           'If I hadn't seen him, he would have gotten loose.'  
 (Dene; Rice 1989:418)

The form *welè* in Tɨ́chɔ́ Yatì is used somewhat differently from *eli/weli/wilì*: rather than a possibility, it expresses a wish, hope or exhortation, as in (84) and (85):

- (84)    Gots'ò    K'àowo,    Israel    wenòhtsɨ    weghàsɔts'eedi    welè.  
           1p-to    lord    Israel    3-god    **3o-ind-praise(im) fut**  
           'Praise be to the Lord, the God of Israel'  
 (Tɨ́chɔ́ Yatì; Luke 1:68)

- (85)    Amì    xàdahodì    ha    sì    Gots'ò    K'àowo    ghɔ  
           Who 3-boast(im) fut foc 1p-to    lord    about  
           **xàdahodì welè**  
           **3-boast(im) fut**  
           'Let him who boasts boast in the Lord.'  
 (Tɨ́chɔ́ Yatì; 1 Corinthians 1:31)

Rice (1989:418-419) also mentions a form *wolénì/woléè/oléè*, described as expressing future intentionality. Example (86) is an instance:

- (86)    ʔeyi    ʔaht'ɨ    olɔɛ  
           there **1s-go(opt) fut**  
           'I will be there, I intend to be there'  
 (Dene; Rice 1989:418)

There is a large number of optative forms based on \*-Lɨ́ɨ́ used as auxiliaries in Dene Dzage. The most frequent in the data is *ulé*, which, following an imperfective verb, indicates a wish, hope or exhortation, and is likely the cognate of the forms *welè* in Tɨ́chɔ́ Yatì and *wolé* in Dene. Examples (87) and (88) illustrate its use:

- (87)    Duhwā    ténentlél    t'é',    dene    kā    kɨ́ndāí    dénst'ek    ulé    t'é'.  
           Close you go then, people for **you watch you listen it will be** then.  
           'When you go close then watch and listen carefully for people.'  
 (Dene Dzage; Charlie, Mary, in Moore 1999:213)

- (88) ... esdētseh **entl’el ulé** t’é,...  
 ... before me **you run it will be** then,...  
 ‘Run ahead of me...’  
 (Dene Dzage; Charlie, Mary, in Moore 1999:233)

Notice that although the gloss ‘it will be’ suggests a simple future, the free translations and the second-person subject marking (*n-*) of the main verbs in both (87) and (88) make it clear that these sentences are hortatory. By contrast, (89) and (90) do not seem to have hortatory meaning; however, whether this difference is due to the different shapes of the auxiliary (*uléi/uléli* rather than *ulé*) is unclear.

- (89) Kuslide sâ **kédussīn uléi**.  
 Needlessly must be **I will say it will be**.  
 ‘I’ll be saying that to fool people.’  
 (Dene Dzage; Charlie, Mary, in Moore 1999:213)

- (90) Seni dehsīni sâ **esyéndíh uléli**.  
 Me if I’m speaking must be **you will know me it will be**.  
 ‘If I’m speaking to you, you will know it’s me.’  
 (Dene Dzage; Charlie, Mary, in Moore 1999:227)

It is not clear that we can analyze these optative forms in Dene Dzage in a parallel manner to those in the other two languages. Unlike T̥ɬçɔ Yatì and Dene, Dene Dzage has the possibility of showing person agreement on post-verbal optative forms based on *\*-Lǎǎ*. Example (91) shows second-person marking on both verbs, in contrast to (87) and (88). What difference this makes to the meaning is not clear, nor are there enough examples in the data to deduce any patterns.

- (91) “Lǎ **gunyān unlé** t’é, eslě,” yéhdī.  
 “Really **you’re smart you will be** then, my dog,” she said to it.  
 ““Then [she] said to the squirrel [Lit., ‘dog’], “Be really smart.””  
 (Dene Dzage; Charlie, Mary, in Moore 1999:211)

#### 4.2.2.3 Evidentiality markers

In Dene Dzage, auxiliaries are sometimes used to indicate evidentiality. The evidential particle *sâ* (Moore, 2002:424) is sometimes prefixed to the stem *-t’ē*, as in (92) and (93):

- (92) (1) I mete’edéli **sât’ē** nā.  
 That it was eating everything **it must have been** assert  
 ‘It must have been eating everything.’  
 (Dene Dzage; Dick, Maudie, in Moore 1999:13)

- (93) Dīēze neyedihtīn sāt'ē.  
 Grizzly bear it took her **must be**.  
 'A grizzly bear must have taken her.'  
 (Dene Dzage; Dickson, John, in Moore 1999:35)

What is not clear to me is how the auxiliary form (including *-t'ē*) differs from the simple particle: comparing (92) and (93) to (94) illustrates the difficulty of detecting the distinction between the two forms:

- (94) Dugusādi guts'ī sâ sesdā sâ guht'ē.  
 How long [time] to must be I'm sitting **must be** it is.  
 '... I must have been there a long time.'  
 (Dene Dzage; Chief, Charlie, in Moore 1999:257)

#### 4.2.2.4 Focus or emphasis markers

In Tł̥chq̣ Yatì and in Dene, auxiliary verbs derived from *\*-T'E'* are used to indicate focus or "emphasis" (Rice 1989:1300; Saxon & Siemens 2007). According to Rice, the emphasis function is demonstrated by "the fact that the complement is often a topic."

In Tł̥chq̣ Yatì, this auxiliary is *hqt'e*. It indicates focus on its complement verb, as in (95) and (96):

- (95) Łıwe ghàts'ıdà hqt'e.  
 (rep. 78) Fish **1p-look at(pf) emph**  
 'We did see the fish.'  
 (Tł̥chq̣ Yatì; MS 119)

The complement verb may be in any aspect. In (95) it is perfective, while in (96) it is imperfective:

- (96) Kwe ghàts'eeda hqt'e.  
 Rock **1p-look at(im) emph**  
 'We are looking at the rock.' (Emphasis is on the present, or drawing attention to the verb (Siemens, pc 2007))  
 (Tł̥chq̣ Yatì; MS 106)

Combined with the future particle *ha*, *hqt'e* adds a deontic sense, as in (97):

- (97) Kehoędı xè dq̣ ka/ha/xa eękw'q̣ **ha hqt'e**.  
 2s-guard(im) with person thus 2s-listen(im) **fut emph**  
 'You should watch and listen carefully for people.'  
 (Tł̥chq̣ Yatì; MS 143)

*Hqt'e* can combine with the past tense auxiliary *ılè*, as in (98) and (99). When *hqt'e* takes a clause marked for past as its complement, the past tense meaning is retained, as in (98):



- (102) ʔeyɪ la bek'aowere wheda ho ts'éekúé ʔqt'e  
 that foc manager 3-sit(im) big woman-poss 3-be(im)  
 nq dedɪ.

dubitative 3-say(im)

'She was the wife of the store manager.'

(Dene; Rice 1989:1349)

- (103) ʔqhnda łeɛ mehúle ts'əh nimbáa hqqt'e lq.  
 Old man one 3-be none(im) belonging to tent 3-be(im) evid

'It was a tent that had belonged to an old man who had died.'

(Dene; Sabourin, Jimmy, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:61)

And in (104), both appear with postpositional phrases that may be complements:

- (104) Jean Marie Sabourin ezhɪh níttlah t'áh azhú gha qt'e  
 Jean Marie Sabourin that 3-arrive(pf) with what for 3-be(im)  
 ʔéhdehsɪ t'áh kaadɪ, dene łandéh gha hqote.  
 1s-ask(PF) with 3-say person dead for 3-be(im)

'When Jean Marie Sabourin came in I asked him [what they were for] and he said they were for the dead.'

(Dene; Sabourin, Jimmy, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:60)

In Dene Dzage, the copula *let'ē/let'ā/lāt'ē/lāt'ā* often appears post-verbally, as in (105) through (107). Moore (pc, 2007) has stated that it is very difficult to tell what meaning the auxiliary contributes to the sentence, and we will attempt no analysis here.

- (105) Bōt yēh ts'a'óli lāt'ē.  
 Boat with we paddled it is.

'We paddled a boat.'

(Dene Dzage; Dickson, John, in Moore 1999:45)

- (106) Sa'ǎ, Eté'e kúhyege kēt'ē gélē lā lēt'ē.  
 Long ago, Dad there like that he carried around assert it is.

'Long ago Dad used to pull out jackfish from there.'

(Dene Dzage; Dickson, John, in Moore 1999:55)

- (107) Endúé, kulā. Just no, dendege lēt'ē, kulā.  
 No, that's enough. Just no, you swallow it is, that's enough.

'No, that's enough. Just swallow that. That's enough.'

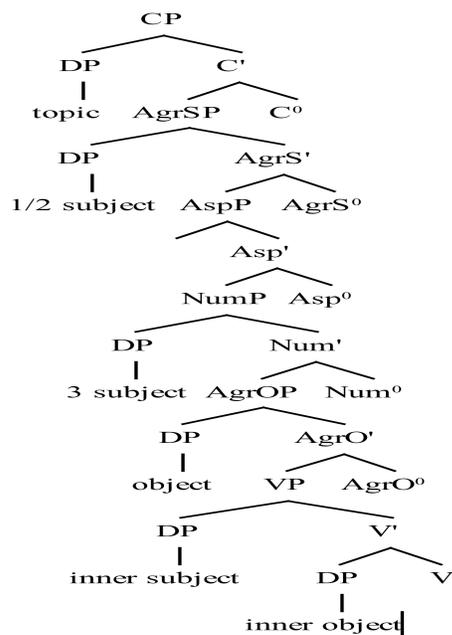
(Dene Dzage; Dickson, John, in Moore 1999:71)

Now that we have finished examining the various types of copulas and auxiliaries and their complements, it is time to give some thought to the syntactic structures that give rise to these constructions.

### 4.3 Summary and analysis

In this section we will propose syntactic structures for the constructions that we have observed in this chapter. In doing so, we should note that a full and rigorous syntactic analysis of these structures is beyond the scope of this thesis. We will therefore make certain assumptions that will allow us to make our proposals without dealing extensively with areas of possible controversy. The question of whether these assumptions are correct we will leave to future research.

First, we will assume for the purposes of this chapter that the syntactic structures of copulas, existentials and auxiliaries in all three languages of study are parallel. We will found our proposals on the further assumption that the structure of an Athabaskan verb is that claimed by Rice and Saxon (2005), as shown in Figure 1:



**Figure 1: Structure of an Athabaskan verb (Rice & Saxon 2005)**

This structure assumes that the formation of the Athabaskan verb is largely syntactic, as elaborated in Rice (2000), and that the typologically unusual appearance of the verb, with the inflectional material inside the derivational, can be explained by a combination of composition according to semantic scope with a subsequent movement of the verb stem to final position. (We will visit this idea in more detail in Section 5.2.2.)

We will suggest structures for copula constructions with two nominal arguments (Section 4.3.1), existential constructions, with a single nominal argument (4.3.2), adjectival constructions (4.3.3), copulas with postpositional complements (4.3.4), and auxiliaries with verbal complements (4.3.5). We will place all of these structures within the overall framework of Rice (2000) and Rice and Saxon (2005) and propose the following:

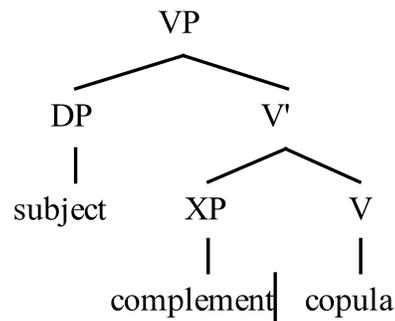
- i. Copulas, in general, have two arguments.
  - a. one argument (the complement) may be a DP, PP or AP.
  - b. the other argument (the subject) is a DP.

- ii. Existentials are a special case of (i) with a “dummy subject” (the areal prefix) and a nominal complement.
- iii. Auxiliaries are another special case.
  - a. TAM markers head a TP node that dominates the main verb.
  - b. Focus markers take a CP complement.

### 4.3.1 Copulas with nominal complements

If an argument of a copula triggers subject agreement, it should occur in [Spec, AgrSP] (for first- and second-person subjects) or [Spec, NumP] (for third-person subjects) depending on person (following Rice and Saxon’s argument (2005:707) that third person in Athabaskan is marked for number but not person). We will assume that subjects originate in [Spec, VP] and then Move to one of the two aforementioned positions to trigger agreement.

The complement of a verb is viewed in generative syntactic theory as a sister to the verb, within VP. We can therefore propose Figure 2 as an extension of Rice and Saxon’s structure in Figure 1:

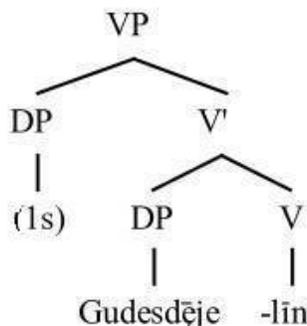


**Figure 2: Complement of a copula**

In this structure, XP represents the copula’s complement: DP, PP or AP as the case may be. It occupies the “inner object” position in Figure 1. However, unlike a direct object, the complement of an ordinary copula, since it triggers neither subject nor object agreement, will not move from this position.

We can therefore assign a sentence like (108) the structure shown in Figure 3:

- (108) Gudesdēje eslīn  
 (rep. 11) Chief 1s-be(im)  
 ‘I am the chief.’  
 (Dene Dzage; Moore 2006:8a)



**Figure 3: Structure of (108)**

where the complement, *gudesdēje*, triggers no agreement, but the first-person singular subject will trigger the agreement prefix *es-* after moving to [Spec, AgrSP].

Subsequent rightward movement of the verb stem *-līn*, as described in Rice (2000), will yield the final form of (108).

We see that with minimal modification of the syntactic structure from Rice and Saxon (2005), we can accommodate copula constructions with nominal complements. The structures in Figures 2 and 3 are also the structures we will assume for nominalized verb + copula constructions. In other words, we can make the uncontroversial assumption that a verb, once nominalized, plays the same role when a copula complement as does any other noun or DP.

The question arises as to whether the same structure will allow for non-nominal complements. Since we have not specified the complement of V any further than XP (see Figure 2), we can indeed have non-nominal complements, as we will see below.

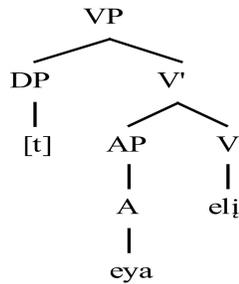
### 4.3.2 Adjective + copula constructions

As we saw in Section 4.1.4, there is still some uncertainty about whether we can treat constructions of this sort as distinct lexical items (making them verbs in their own right, distinct from the copulas) or as phrasal sequences of adjective and copula. We should therefore provide two possible analyses to allow for either eventuality.

If adjectival constructions are distinct verbs, the adjective would be an incorporated or compound element and part of the verb theme.

However, we must also account for the possibility that the adjective and the copula are wholly separate elements. Under this analysis, the adjective forms an AP that is the complement of V, in a manner precisely parallel to the nominal complements that we explored in Section 4.3.1. This structure is illustrated in Figure 4:<sup>42</sup>

<sup>42</sup> Since subject agreement has already been explained, and since it is unchanged in this second analysis, it is omitted from Figure 4.



**Figure 4: Phrasal adjective constructions**

Whether the lexical or the phrasal analysis is correct is an open question, as we have already seen.<sup>43</sup> However, whichever one turns out to be correct, we now have a structure to account for it.

### 4.3.3 PP + copula constructions

As we have seen in Section 4.1.5, there are several examples of postpositions co-occurring with copulas where it is uncertain whether the postposition is a complement or an adjunct. However, we must provide a structure for those that are unambiguously complements. Fortunately, the same structure that we have used for nominal and adjectival complements can be pressed into service once more.

We have already seen that expressions of belonging are some of the likeliest candidates for PP complements (Section 4.1.5.2). For this reason, let us select one of these expressions for our analysis:<sup>44</sup>

- (109) D<sub>1</sub>    sahcho            nets'ɔ            n̄jɪt'e?  
           this    bear-big        2-belonging to    qn-3-be(im)  
           'Does this bear belong to you?' (my translation)

(T̄h̄ch̄q Yat̄i; Grade 1 Dogrib Class 1995:13)

If *nets'ɔ* is the complement of *n̄jɪt'e*, we have a structure where the two are sisters under V', in exactly the same manner as in our analyses of DP and AP complements.

We see, then, that copulas with two arguments – a subject and a complement – may be analyzed with a single basic structure, whether the complement is a DP, AP or PP. We will revisit this idea once more when we examine auxiliary verb constructions in Section 4.3.5.

### 4.3.4 Existential constructions

Existential constructions, in which the verb takes a single nominal argument (the complement), have a “dummy” subject, similar to the English *there* in *there is/are*. We

<sup>43</sup> In view of the evidence of epenthetic syllables in Rice (1989), alluded to in Section 4.1.5, it is possible that the lexical structure is correct for T̄h̄ch̄q Yat̄i and the phrasal for Dene.

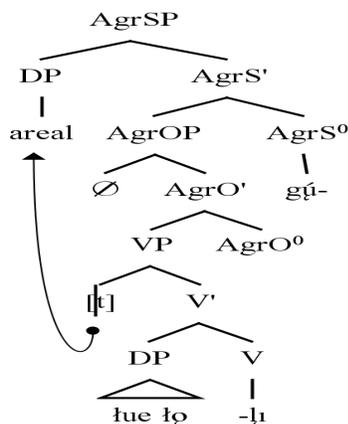
<sup>44</sup> N̄jɪt'e, in (109), is a phonologically fused form consisting of the question particle *n̄i* and the copula *h̄ɔt'e*.

have met this idea in passing in Section 3.3.1; here we use it to propose a structure for the existential.

We will assume here that the areal prefix itself (*go-/ho-/gu-*), which occurs in all existential verbs, serves as the subject marking. We may therefore place the existential “dummy” subject at [Spec, VP], so that for sentences like (110), we have structures like that in Figure 5:

- (110)    *huc*    *lɔ*                    **gúłı**  
           fish many                    **ar-3-be(im)**  
           ‘...there are lots of fish...’

(Dene; Constant, Adeline, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:77)



**Figure 5: Existential verb structure**

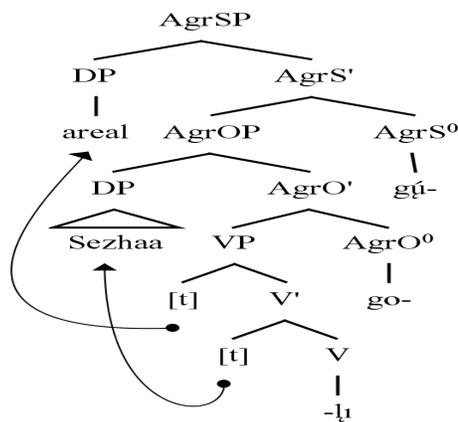
This model is satisfactory where the existential verb takes a complement but does not show object agreement with that complement. However, we have also seen (Sections 3.1.2.2, 3.2.2.2 and 3.3.2.2) verbs like those in (111) and (112), which show object agreement:

- (111)            *Sezhaa*    *azhɔ*    *dechı'tah*                    **gogúłı**  
                   1s-child    all            bush                    **3po-ar-3-be(im)**  
                   ‘All my children were born on the land ...’

(Dene; Constant, Adeline, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:77)

- (112) Nihshíh kóé goch'aa nídháá dechıtah **segúııı.**  
 Fort Rae ar-outside far bush **1so-ar-be(im)**  
 'I was born quite a ways out of Fort Rae, in the bush.'  
 (Dene; Denetre, Gabriel, in Thom, Blondin-Townsend & Macintosh Wah-Shee  
 1987:25)

These data suggest that the complements in (111) and (112) are direct objects. We could therefore posit a structure like Figure 6, where the direct object moves to [Spec, AgrOP] just as in Rice and Saxon's (2005) analysis:



**Figure 6: Existential-like verbs with object agreement**

The areal subject will trigger subject agreement at AgrS<sup>0</sup>; subsequently, V-movement will place *-ıı* rightward of both *go-* and *gu-*, producing the form of the verb that we see in (111).

In proposing different structures for existentials (without object agreement) and verbs meaning 'be born' (with object agreement), we are suggesting that the latter differ from the former in more than just inflection: different argument structures imply that we are dealing with different verbs. We can support this contention with a near-minimal pair:

- (113) néné dádéhcho bek'e dene dánéht'e góıı  
 land 3-be how big(im) 3-on person 3-be how many(im) AR-be(im)  
 '... how big the land is, how many people there are on it, ...'  
 (Dene; Rice 1989:1350)

In (113) we have a construction where the complement of the verb is human, just as in (111); in (113), however, no object agreement appears, and we have a different reading: 'be [in a place]' rather than 'be born'.

This distinction points to a divide between verbs that take predicative complements, a class in which we can include existentials, and verbs that take direct objects. With the exception of the latter, we have a unified analysis for copulas (with several different complement types) and existentials. In the next section we will show that this analysis will also permit the inclusion of auxiliaries.

### 4.3.5 Verb + auxiliary constructions

Since, as we will argue in Chapter 5, an auxiliary must have its verbal complement in its scope, auxiliaries must occupy a higher structural position than their complements. We may take the position here that the complement of an auxiliary occupies a node above AgrSP. There are three separate grounds for this assumption.

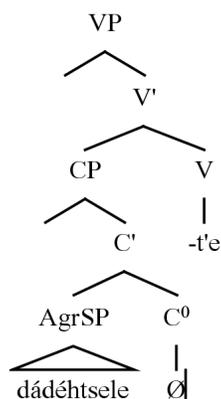
First, auxiliaries are sentential in scope: they apply tense or emphasis to the entire clause of which the complement verb is the head.

Secondly, they show no subject agreement with the subject of their complement verb: they therefore cannot be c-commanded by AgrSP.

Rice (1989:1300) remarks that in Dene, *ats'yt'e* “can take sentential complements and indicates emphasis.” The data that we have examined indicate that this statement is true for Tł̥chq̣ Yatù as well (Section 4.2.2.4). Assuming that this is the case, we should be able to have an entire clause as the complement of the copula. Let us take as our starting point one of Rice’s examples:

- (114)      *dádéhtsele*              *qt'e*  
               3-be how small(im)        emph  
               ‘How small she is!’  
 (Dene; Rice 1989:1300)

If *dádéhtsele* is the complement of *qt'e*, we should have a structure like Figure 7:<sup>45</sup>



**Figure 7: Sentential complement**

This structure, being bi-clausal, would be syntactically parallel to an English construction of the kind *it's that she's small*. We will use this analysis when the auxiliary conveys no TAM information, like the “emphatic” auxiliaries *hqt'e* in Tł̥chq̣ Yatù and *qt'e/hóqte* in Dene.

It would be possible to assign a similar structure to the auxiliaries that are used as tense and modal markers as well. However, this is not the analysis we propose, for the following reasons.

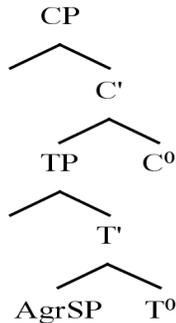
<sup>45</sup> Zero complementizers are common in these languages. Rice (1989:1221-1241) includes numerous examples.

The auxiliaries *ɟlè* (Tɬɨchɔ Yatù) and *ɟlé/ɟlél/lé* (Dene), which are used as markers of past tense, are invariant: they do not show person or number inflection. The same is true of the various optative forms that in both languages are used to mark intention, desire, wish or possibility: *welè/elì/welì/wilì* in Tɬɨchɔ Yatù, *olì/olé/wolé* in Dene.

The past-tense marker in Dene has a reduced form, *lé*, that is not shared by the perfective copula form *ɟlé* in the same language. This fact suggests that the copular form *ɟlé* and the past-tense marker *lé* should not be treated as the same object morphosyntactically. Similarly, there is a form *nulè* in Tɬɨchɔ Yatù that is also found only as a past-tense marker (Saxon and Siemens 2007).

In Dene Dzage, the auxiliary form *ulé* appears to mark future or modal predicates. It sometimes appears without subject agreement, as in (89) and (90), but sometimes with, as in (91). This argues that two different syntactic constructions are at work.

None of the three languages of study mark tense morphologically. Rice and Saxon's (2005) verb structure reflects this fact: there is an AspP node, but no TP. However, the auxiliaries in Tɬɨchɔ Yatù and Dene based on perfective forms of the copula *ts'ɟl* are used to mark tense syntactically. The auxiliary forms that include *ulé* and its variants in Dene Dzage, and their cognates in Tɬɨchɔ Yatù (*welè/welì/elì/wilì*) and Dene (*wolé/olì/olé*), impart tense (or modal) information to their complements. For all these reasons, it is logical to extend Rice and Saxon's structure by adding a TP node, as in Figure 8, where the auxiliaries with TAM meaning are added at T<sup>0</sup>:



**Figure 8: The addition of a TP node**

We therefore have a uniaxial analysis for tense-marked constructions that contrasts with the biclausal structure that we proposed for focus-marked constructions.<sup>46</sup>

### 4.3.6 Conclusions

We have proposed syntactic structures for the various types of copula constructions that we find in the languages of study. Essentially, we have a model consisting of a single structure in which the complement of a copula is an XP that need not be specified for category. To this model we have added two modifications: a TP node to host the TAM-marking auxiliaries, and a movement from VP-internal subject position to [Spec, AgrSP] to account for the areal marking on the existentials.

<sup>46</sup> In Section 5.4.4.1 we will explore the historical implications of this claim.

The next stage of our exploration is to discover the relationship of structure to meaning, and the role that this relationship may have played in the history of copula constructions.

## 5 The semantics of copular verbs and auxiliaries in historical perspective

This chapter discusses the semantics of the copular verbs and the auxiliaries formed from the stems  $*-L\acute{I}\acute{I}$  and  $*-T'E'$ . Section 5.1 proposes that there are distributional differences, corresponding to the stage-/individual-level predicate distinction, between the uses of copular verbs based on  $*-L\acute{I}\acute{I}$  and  $*-T'E'$  in the languages of study. It demonstrates that this proposal is supported by the evidence from Tłıchq Yatı̀ and Dene, but not Dene Dzage. Section 5.2 demonstrates that by contrast, auxiliaries based upon the copula stems are not sensitive to the stage-/individual-level distinction; data from all three languages are adduced in support of this claim. Section 5.3 summarizes the existence of a different distributional difference in auxiliary uses: namely, that tense (or, more broadly, TAM-category) markers, in all three languages, are always formed from the  $*-L\acute{I}\acute{I}$  stem, never the  $*-T'E'$  stem. Section 5.4 proposes that this fact may be due to a historical process: that in the formation of auxiliaries, an analogy was made between stage-level predicates and tensed predicates. Motivation for this analogy is drawn from Musan's development of Kratzer's (1989, 1995) assertion that stage-level predicates have a spatiotemporal variable that individual-level predicates lack; the copula used in forming stage-level predicates would therefore be more naturally expected to serve as the basis for TAM markers than would the copula used in individual-level predicates. Finally, Section 5.5 draws evidence from other Athabaskan languages to suggest that the stage-/individual-level distinction in copulas antedates the division between Dene Dzage on the one hand and Tłıchq Yatı̀ and Dene on the other, and that therefore the apparent absence of such a distinction in Dene Dzage is likely to be a later development.

### 5.1 Copulas and the stage-level/individual-level distinction

This section explores the uses of copulas based on  $*-L\acute{I}\acute{I}$  and  $*-T'E'$  in Tłıchq Yatı̀ and Dene, and shows that they can be broadly divided according to the distinction between stage-level and individual-level predicates. In 5.1.1, we explore the definition of this distinction and some of its implications for tense. In 5.1.2, we examine the extent to which the  $*-L\acute{I}\acute{I}/*-T'E'$  distributional difference fits the stage-/individual-level distinction. In 5.1.3, we look at certain distributional differences that the stage-/individual-level distinction cannot account for, and consider whether these exceptions can be explained by syntactic distinctions.

#### 5.1.1 The distinction between stage-level and individual-level predicates

Kratzer begins her 1989/1995 article on stage-level and individual-level predicates (Kratzer 1989/1995:125) with the following sentence: “That I am sitting on this chair is a very transitory property of mine. That I have brown hair is not.” She follows Carlson (1977) in referring to the grammatical distinction between these two assertions as one of *stage-level* versus *individual-level predicates*. The terminology refers to the contention that individual-level predicates make characterizing statements defining the “permanent

and essential” properties of an *individual* (Jäger, 2001:85), while stage-level predicates assert relatively fleeting actions or states that define temporal slices, or *stages*, of an individual (Jäger 2001:85; Kratzer 1989/1995:138: the former defines stage-level predicates as denoting “transitory and accidental” properties). Kratzer acknowledges (1989/1995:136) that the distinction between the two types of predicates is “context dependent and vague”: she points out that “I have brown hair” can receive a stage-level interpretation if the speaker dyes her hair frequently. Nevertheless, she shows that however elusive the distinction may be, it is important enough to be signalled in the syntax of many languages. The classic example is that of Spanish, where the copula *ser* is used in individual-level predicates while *estar* is used in stage-level predicates, as (1) and (2), respectively, demonstrate:<sup>47</sup>

(1)     **Es**           enfermado.  
           Be.3s       sick-masc  
           ‘He is mentally disturbed.’  
 (Spanish)

(2)     **Está**        enfermado.  
           Be.3s       sick-masc  
           ‘He is ill.’  
 (Spanish)

There are dialects of English that make precisely the same syntactic distinction. Examples (3) and (4) are from African-American Vernacular English:

(3)     He   **be**   sick.  
           “present habitual”  
 (AAVE; Winford, 1992:52)

(4)     He   sick.  
           “present”  
 (AAVE; Winford, 1992:52)

However, in most dialects of English, the stage-/individual-level distinction is signalled in subtler ways. Many of these ways are lexical: verbs such as *know*, as Kratzer (1989/1995:131) points out, almost always have an individual-level interpretation. Some are syntactic: the progressive is exclusive to stage-level predicates, for example:

(5)     Evelyn   **is**   **being**   silly.

(6)     Evelyn   **is**   silly.

Example (5) is a stage-level predicate, making a statement about how Evelyn is behaving at the moment. By contrast, (6) is individual-level, saying something about Evelyn’s character.

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<sup>47</sup> I am indebted to Rebeca Duque Colmenares for these two examples.

Temporality interacts with the stage-/individual-level distinction in other ways: one way of converting an individual-level into a stage-level predicate is to give it past tense, as Kratzer demonstrated with the sentence reproduced here as (7):

(7) Henry was French.

(Kratzer 1989/1995:155)

As Kratzer explains, a sentence that in the present tense had exclusively individual-level interpretation (*Henry is French*) now has either an individual-level or a stage-level interpretation. Either Henry is dead, but during his lifetime could be characterized as French (individual-level) or he is still living, but has changed his nationality (stage-level).

Kratzer's observation also holds for individual-level predicates that have been shifted into the future rather than the past. Consider (8):

(8) Henry will be French/Henry is going to be French.

Either the speaker is making an individual-level statement about a person who does not exist yet (for example, an expectant mother expressing a determination to give birth in France) or a stage-level statement about a living person who is changing his nationality. (A possible third interpretation, where *will* is interpreted as an epistemic modal, is not relevant here.)

Kratzer's analysis of the stage-level/individual-level distinction and its interaction with tense is that stage-level predicates have an inherent spatiotemporal (Davidsonian) argument that individual-level predicates lack. That is, she proposes that every stage-level predicate is intimately connected to a particular location in space-time, whereas individual-level predicates are essentially "timeless". This analysis is certainly very satisfying on an intuitive level; Kratzer shows that it is also supported by semantic and syntactic evidence. Her explanation also accounts neatly for the dual interpretations of individual-level sentences shifted into non-present tense: she claims that in the stage-level interpretations of sentences like (7) and (8), the spatiotemporal variable associated with the stage-level predicate is what motivates the tense. In the individual-level interpretations of such sentences, on the other hand, the predicate itself is associated with no spatiotemporal variable, and the tense arises from the non-present character of the predicate's nominal argument—*Henry*, in the examples above (Kratzer, 1989/1995:156).

It is the main contention of Section 5.1 that Tɬɬchɔ Yatì and Dene copulas are selected according to the stage-/individual-level distinction. The underlying assumption is that Kratzer's claims are correct concerning the spatiotemporal variable associated with stage-level predicates. The analysis on which this section's proposal is based, therefore, should be able to account for the behaviour of Tɬɬchɔ Yatì and Dene copulas in present and non-present tenses.

### 5.1.2 Distributional differences between \*-Lǝǝ and \*-T'E' copulas

Our central premise for this section is that there is a semantically-based distinction in the use of copulas based upon the two stems: namely, that copulas based on \*-Lǝǝ are strongly associated with stage-level predicates, and those based on \*-T'E' with

individual-level predicates.<sup>48</sup> We will find that this assumption is largely supported in T̥chq Yatì and Dene, but unsupported in Dene Dzage.

In T̥chq Yatì, there are minimal pairs that illustrate a distinction between the two copulas. Example (9) makes an assertion that normally has an individual-level interpretation. The copula used is *at'sjt'e*:

- (9) Cheko      **ah't'e.**  
 Young man    **1s-be(im)**  
 'I am a young man.'

(T̥chq Yatì; MS 23)

Although youth is, sadly, a far from permanent condition, permanency is not in itself the only criterion for a predicate's individual-level status (Jäger 2001:94, citing Carlson 1977): in fact, Carlson uses *young* as an example of a non-permanent individual-level predicate.

Example (9) is individual-level in that for this kind of characterizing assertion, both speaker and listener agree on a set of assumptions about the universe that they are talking about, one of which is its temporal extent. Obviously, almost no statement one can make about the universe will be true for ever: even "the earth orbits the sun" will cease to be a true statement after the sun passes into the red-giant stage of its life and either engulfs or vaporizes the earth. The participants in a conversation, however, tacitly agree to assume a temporally bounded universe in which statements such as "the earth orbits the sun" are individual-level. Such is also the case with "I am a young man", even though the temporal bounds of the presumptive universe are considerably more restricted. Like "the earth orbits the sun", the assertion "I am a young man" is presumed to be permanent *for the purposes of the conversation*. Thus, the contrast between individual-level and stage-level predicates is one of relative, rather than absolute, permanence versus transience. That (9) is indeed individual-level can be seen by comparing it to an otherwise identical sentence where *ats'jt'e* has been replaced by *ts'jly*:

- (10) ??Cheko      **eh'ly.**  
 Young      **1s-be(im)**  
 man  
 'I am a young man.'

(T̥chq Yatì; MS 22)

Mary Siemens' comment on (10) is that it is "obvious and odd, unless you're talking about acting a part." The mention of "acting a part" is significant. It illustrates that this sentence is one for which neither speaker nor listener assume any permanence at all: it is explicitly temporary, and hence "acting a part" must be (if the pun can be forgiven) stage-level. Without such a stage-level interpretation, the sentence is peculiar or ungrammatical.

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<sup>48</sup> I am indebted to Leslie Saxon for first drawing my attention to this fact.

*Ehɿ* becomes acceptable, however, if we change it to a non-present tense, making the utterance stage-level (as we did with *Henry will be French*). Example (11) illustrates the result of such a change:

- (11)        Cheko                    **ehɿ**                    ha.  
               young man        **1s.be(im)**        fut  
               ‘I will be the young man.’  
 (Tɿchɔ Yatì; MS 22a)

Mary Siemens accepted (11) as grammatical, but again said that it would be used to refer to a dramatic role. Similarly, (12) could be used if someone has become a caribou “for example, in a legend” (Siemens, pc, 2007), but otherwise it would be “quite odd”. Once again, only a stage-level interpretation is valid for *ts’ɿɿ*.

- (12)        ?Ekwò                    **elɿ**.  
               Caribou        **3-be(im)**  
               ‘He/she/it is a caribou.’  
 (Tɿchɔ Yatì; MS 68a)

Example (13) and (14) are another minimal pair. Example (13) contains the second-person singular form of the copula *ts’ɿɿ*; (14), of *ats’ɿ’e*:

- (13)        Dɔgòò                    **nelɿ**.  
               Person-        **2s-be(im)**  
               new  
               ‘Be a new person.’  
 (Tɿchɔ Yatì; MS 144)

- (14)        Dɔgòò                    **at’e**.  
               Person-        **2s-be(im)**  
               new  
               ‘You are a new person.’  
 (Tɿchɔ Yatì; MS 144)

(*At’e*, the verb form appearing in (14), is a contracted variant of *anet’e*, the second-person form of *ats’ɿ’e*.)

Despite the difference in mood (imperative versus indicative) in the English translations of these two examples, the identical verbal morphology on the copulas in (13) and (14) shows that we are not dealing here with a difference in (morphological) aspect or mode; it is the choice of copula alone that creates the difference. The imperative meaning of (13) is probably due to the second-person marking; (14) lacks this interpretation, suggesting that *at’e* signals an individual-level predicate, whereas *nelɿ*, in (13), is stage-level.<sup>49</sup> This suggestion arises from the fact that imperatives by their very

<sup>49</sup> According to Mary Siemens, a non-imperative interpretation of (13) is “very awkward”.



- (22) Nets'èkeè      **elɿ**      ha      wegho      nànewo-le.  
                          2s-wife      **3-be(im)**      fut      3-about      2s-worry(im)-neg  
                          ‘Do not fear to take [her] to be your wife.’  
 (T̥ɨchq̥ Yat̥i; Matthew 1:20)

Both (21) and (22) contain stage-level predicates. The speaker in (21) is no longer a boy: hence, the interpretation of the phrase *chekoa ehɿ* ‘I was a boy’ is similar to the stage-level interpretation of *Henry was French*. In (22), Mary has not yet become Joseph’s wife. *Nets'èkeè elɿ ha* ‘she will be your wife’ is thus parallel to the stage-level interpretation of *Henry will be French*.

We find that the stage-/individual-level distinction appears to govern the choice of copulas with nominal complements in Dene as well, as (23) and (24) illustrate:

- (23) Dezoq̥      **ʔehɿ**      ekúh      ʔehdaro      tambáa      kq̥é      gozhíu      n̄hnde.  
                          Child      **1s-be(im)**      when      Big Island      shore      house      inside      1s-live(im).  
                          ‘When I was a child I lived in a house on the shore of Big Island.’  
 (Dene; Sabourin, Margaret, Sr., in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:9)

- (24) Kíu      séé      gohtʔéh      tʔáh      ʔahsú      **elɿle**.  
                          Just      very      mud      with      thing      **3-be(im)-neg**  
                          ‘He was covered with mud.’  
 (Dene; Sabourin, Jimmy, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:60)

Example (23), like (21), can only have a stage-level interpretation; (24) must also be stage-level, as being covered with mud (or, in the idiom used here, being ‘nothing with mud’) is unlikely to be a characteristic of the individual. In both of these examples, the copula used is *ts'ɿɿ*.

In (25) and (26), we see individual-level, characterizing statements, and, as in T̥ɨchq̥ Yat̥i, we find that the copula used is *ats'ɿ'e*:

- (25) Ezhɿh      ʔahsú      kaondih      gots'ɕ,      gotá      móla  
                          That      thing      like      3p-from      3PL-father      white person  
                          **qt'e**      tʔáh.  
                          **3-be(im)**      because  
                          ‘They had things like that because their father was a white man.’  
 (Dene; Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:60)

- (26) satsónékq̥      zq̥      **ʔqt'e**  
                          metal-      only      **3-be(im)**  
                          house  
                          ‘It was a metal house...’  
 (Dene; Rice 1989:1353)

Statements of a person's ethnicity, as in (25), and the composition of an object, as in (26), are quintessentially individual-level, as can be seen (in English) from the ungrammaticality (or at least oddity) of forced stage-level interpretations:

(27) ??He was a white man on Friday.

(28) ??It was a metal house on Friday.

It seems clear from the evidence of (9) to (26) that in both T̥ɬɬchɔ Yatì and Dene there is a distributional distinction between copulas formed on the stem *\*-L̥ɬɬ* and those formed on *\*-T'E'*. Turning to the case of Dene Dzage, however, we find that we cannot draw such a distinction. If we compare (29) to (30) and (31) to (32), we see two pairs of sentences identical but for the choice of copula, and that were judged by the speaker to be equally grammatical (Moore, pc, 2007):

(29) Eskie            **eḷin.**  
 Young man    **3-be(im)**  
 'He's a young man.'  
 (Dene Dzage; Moore, pc, 2007)

(30) Eskie            **lēt'ē.**  
 Young man    **3.be(im)**  
 'He's a young man.'  
 (Dene Dzage; Moore, pc, 2007)

Whether being a young man is judged to be individual-level or stage-level, the point is that the speaker considered the two sentences to be equivalent in meaning and equally grammatical, demonstrating that the two copulas can in this instance be used identically. The same is true for the two sentences in (31) and (32):

(31) Gudesdēje        **esl̥in**  
 Chief            **1s-be(im)**  
 'I am the chief.'  
 (Dene Dzage; Moore, pc, 2007)

(32) Gudesdēje        **lāst'ā.**  
 Chief            **1s-be(im)**  
 'I am the chief.'  
 (Dene Dzage; Moore, pc, 2007)

The next examples provide further illustration that it is impossible to support the hypothesis that there exists in Dene Dzage a stage-/individual-level distinction between *\*-L̥ɬɬ* and *\*-T'E'* copulas such as we found in T̥ɬɬchɔ Yatì and Dene. Examples (33) to (38) are instances of the *\*-L̥ɬɬ* copula, *dzēl̥in*, in both stage-level and individual-level predicates:

(33) Dēsgúh left side esgāné’ kédēdīj t’é, i **netúé’** **eīni**.  
 This way left side my arm I lift then, that **your daughter she is**.  
 ‘I’m going to lift up my left arm this way and then your daughter will be here.’  
 (Dene Dzage; Dickson, John, in Moore 1999:43)

(34) **Dene eī,** metúé’.  
**Person she is** her daughter.  
 ‘She was a person again, her daughter.’  
 (Dene Dzage; Dickson, John, in Moore 1999:43)

Examples (33) and (34) occur in a story in which a young woman has been transformed into a fish. Example (33) is uttered by a medicine man who explains how he will remove the enchantment; (34) describes the result. Clearly, in both these cases, *dene eī/elīni* has a stage-level interpretation.

Difficulties for our hypothesis begin to arise, however, when we consider (35) and (36), where *dzēlīn* occurs in what seem to be individual-level predicates:

(35) Half-breed **eīn** edāde, Uncle Leo metúé.  
 Half-breed **she was** older sister, Uncle Leo his daughter.  
 ‘[She] was a half-breed, Uncle Leo’s daughter.’  
 (Dene Dzage; Donnessey, Mida, in Moore 1999:373)

(36) That here, i doctor **eīni**, medicine man.  
 That here, that doctor **he is**, medicine man.  
 ‘That doctor, that medicine man...’  
 (Dene Dzage; Dickson, John, in Moore 1999:43)

Examples (35) and (36) are both instances of copulas with nominal complements, and the first one at least might be expected to have an individual-level interpretation, as it is a statement of ethnicity similar to *Henry is French*. On the other hand, De Reuse (2006:90) writing on San Carlos Apache, a Southern Athabaskan language, describes the copula *nlī* (cognate with *elī*) as “used to indicate gender, occupation or ethnicity”. We might perhaps suggest that Dene Dzage has a similar rule, and file these examples as instances of indicating “gender, occupation or ethnicity” (de Reuse 2006:90). However, we also find *dzēlīn* used for family relationships, which are by appearances also individual-level:

(37) I gólí dūḷā dédī sâ i. I mōmā **eīni**.  
 That even so not she says must be that. That mother **she was**.  
 ‘But its mother must not have paid any attention to what it was doing.’  
 (Dene Dzage; Charlie, Mary, in Moore 1999:225)

It is true that in context, (37) does not refer to literal motherhood but to the relationship between the human protagonist and her squirrel companion. The contrary,

however, is the case with (38), where the subject of the sentence is in fact the protagonist's father.

- (38) That's why *metá* **elín**, *ługe* *tésegín*, *ten*.  
 That's why her father **he was**, fish he packed up, ten.  
 'The girl's father packed up fish, ten of them.'

(Dene Dzage; Dickson, John, in Moore 1999:37)

We might add family relationships to our hypothetical list of concepts always expressed with *dzelín*, except that they are also often expressed with *edzet'ē*, as seen in (39) to (41):

- (39) *Ałā* *dehłígé'* **lēt'ē**.  
 Not his wife **it is**.  
 'That's not our wife.'

(Dene Dzage; Carlick, Angel, in Moore 1999:149)

- (40) I Louie Tommy **bōbā'** **lēt'ē** *hłı*?  
 That Louie Tommy **dad it is** question?  
 'That was Louie Tommy's dad, eh?'

(Dene Dzage; Charlie, Lena, in Moore 1999:167)

- (41) I *mā* **túé'** **et'ā'?**  
 That whose **daughter she is?**  
 'Whose daughter was she?'

(Dene Dzage; Charlie, Lena, in Moore 1999:171)

Furthermore, if we accept a lexical rule specifying *dzelín* as the copula used for identifying gender, occupation or ethnicity, (42) and (43) are difficult to explain.<sup>50</sup>

- (42) Kaska Indian **lat'ē**, my daddy.  
 Kaska Indian **he is**, my daddy.  
 'My daddy was a Kaska Indian....'

(Dene Dzage; Chief, Charlie, in Moore 1999:273)

- (43) Dene **lēgiht'ā** *déndia*.  
 Person **it is** you say.  
 'They are people.'

(Dene Dzage; Dick, David, in Moore 1999:339)

In (42) a form of *edzēt'ē* is used to identify ethnicity, a role that, as we have seen in (35), can also be filled by *dzelín*. In (43), similarly, *edzēt'ē* is used to identify someone as human; however, in (34), *dzelín* is seen to be used this way too.

<sup>50</sup> It is possible that the code-switching in (42) has affected rules that might operate differently in its absence. However, (35) also involves code-switching, but employs *dzelín* rather than *edzēt'ē*.

Examples (44) and (45) are worthy of comparison. The first is part of a suggestion that modern people listen to animals, which have wisdom to impart to us. The speaker makes the point that the Dene Dzage in the old days listened to the animals:

- (44) Híh      **gelīn**      gólí,      k'āde      sâ      kugudéts'ek      nā.  
 Animals **they were** even so,      still      must be      they listened      assert.  
 'Even though they were animals they must have really listened to them.'  
 (Dene Dzage; Donnessey, Clara, in Moore 1999:367)

Here, although presumably the equation *they* = *animals* is one that is individual-level (there are no transformations in the context), a form of *dzelīn* is employed. By contrast, in (45), the speaker is a man who has transformed into a grizzly bear. His form is temporary, and he uses a form of *edzet'ē*:

- (45) Kulā      híh      **lēst'ē**.  
 Finally      animal      **I am**.  
 'I am an animal.'  
 (Dene Dzage; Dick, David, in Moore 1999:345)

In (44) and (45), therefore, the two copulas are being used in ways precisely opposite to what we have observed in T̥h̥ch̥ Yat̥i and Dene.

Based upon the examples above, we can conclude that the choice of copulas with nominal complements in T̥h̥ch̥ Yat̥i and Dene is indeed governed by a stage-/individual-level distinction, but that in Dene Dzage it is not.

### 5.1.3 Challenges to this analysis

There are a number of potential hurdles facing an analysis of T̥h̥ch̥ Yat̥i and Dene copulas based upon a distinction between stage-level and individual-level predicates. The first of these is that for uses of copulas with non-nominal complements, the distinction does not seem to hold. Secondly, as was remarked in Chapter 4, existential verbs are overwhelmingly (and perhaps entirely) derived from the *\*-L̥ġġ* stem.<sup>51</sup> Thirdly, we are also faced with evidence that adjectival constructions tend to show a different semantic distinction between the copulas, one of animacy. Let us recall once more the minimal pairs from Chapter 4:

<sup>51</sup> Nevertheless, a historical motivation for the development of the existentials from the *\*-L̥ġġ* stem is desirable, though work with more languages and more texts is indicated in order to discover such a motivation. One point perhaps worth noting in this context, however, is that the verbs for “be made” and “be born” (listed with their paradigms in Chapter 3) are formed on the *\*-L̥ġġ* stem. It is easy to see how these verbs in particular, denoting changes of state, could have arisen from the stage-level copula. (Viz. the discussion of (13) to (18) in Section 5.1.2.) Furthermore, the existentials contain the areal prefix and thus a connection to spatiotemporal location. As we saw in Section 5.1.1, spatiotemporal location is essential to Kratzer’s definition of stage-level predicates. This idea will be explored more fully in Section 5.4.

(46) **Edi hɔt'e.**  
**Hot emph**  
 'It is hot' (weather; emphatic)  
 (Tɬɨchɔ Yatì; MS 45)

(47) **Edi elɨ.**  
**Hot 3-be(im)**  
 'S/he has a fever.'  
 (Tɬɨchɔ Yatì; MS 14)

(48) **Eyaelɨ.**  
**Sick-3-be(im)**  
 'She's sick.'  
 (Tɬɨchɔ Yatì; MS 93)

(49) **Eya hɔt'e.**  
**Sick-3-be(im)**  
 'It hurts.'  
 (Tɬɨchɔ Yatì; MS 93a)

In (46) through (49), we have examples reminiscent of the syntactic distinction in the Romance languages between adjectives of temperature when they refer to weather and to subjective feeling: depending upon the verb used, the interpretation of the subject changes for pragmatic reasons. *Hɔt'e* with an adjectival complement does not occur in Tɬɨchɔ Yatì with a human subject: (46) and (49) therefore cannot be interpreted with the meanings that (47) and (48) carry. A similar phenomenon occurs in the Romance languages, where a three-way distinction in verbs dictates the interpretation of the subjects of predicates referring to temperature. In French, for example, the verb *faire* requires that the subject be interpreted as the weather; the verb *avoir*, an animate experiencer; the verb *être*, a (usually inanimate) theme, as the triplets (50)-(52) and (53)-(55) demonstrate:

(50) Il **fait** chaud.  
 3s.masc **3s.do** hot  
 'It is hot.' (weather)  
 (French)

(51) Il **a** chaud.  
 3s.masc **3s.have** hot  
 'He feels hot.'  
 (French)

(52) Il est chaud.  
 3s.masc 3s.be hot  
 ‘It is hot.’ (to the touch)  
 (French)

(53) Il fait froid.  
 3s.masc 3s.do cold  
 ‘It is cold.’ (weather)  
 (French)

(54) Il a froid.  
 3s.masc 3s.have cold  
 ‘He feels cold.’  
 (French)

(55) Il est froid.  
 3s.masc 3s.be cold  
 ‘It is cold.’ (to the touch)  
 (French)

The point is that cross-linguistically, the strategy of varying the copula choice to express distinctions in adjectival constructions is not at all unknown. Within the Athabaskan family, Navajo has a distinction between third-person uses of the copulas that is also based upon animacy (Young & Morgan 1992:538).

It is worth noticing that (46) actually shows an auxiliary use of the copula *h̄ot’e*: to express unemphatically ‘the weather is hot’, it is perfectly acceptable to use *edi* without a copula (Siemens, pc, 2007). This fact is demonstrated by (56) through (58):

(56) Edı.  
 Hot  
 ‘It’s hot.’ (weather)  
 (T̄ıch̄q Yatı̀; MS 45a)

(57) Edı ɟl̄è.  
 Hot past  
 ‘It was hot.’ (weather)  
 (T̄ıch̄q Yatı̀; MS 46a)

(58) \*Edı h̄ot’e ɟl̄è.  
 Hot emph past  
 (T̄ıch̄q Yatı̀; MS 46)



house, as in (64); however, this alone seems scanty evidence for assigning stage-level status to one and individual-level to the other.

- (63) Ili téthela **dechité** elɿ.  
 spruce branch spread out **floor** **3-be(im)**  
 ‘The floor is covered with spruce boughs.’ [Lit., ‘Spruce branches spread out are the floor.’]

(Dene; Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:15)

- (64) **satsónékó** zɔ ʔɔt'e  
**metal-house** only **3-be(im)**  
 ‘It was a metal house...’

(Dene; Rice 1989:1353)

Copulas with PP complements also raise some questions. As mentioned in Section 4.1.5, they tend to be rare in the data; however, they do occur. When they do, we find that it is difficult to discover any patterns to the distribution of the copulas.

Ownership or belonging is often expressed with a copula and a PP complement. The two postpositions generally used are *-gha* ‘for’ and *-ts'ɔ/-ts'ɛ* (the latter two are the T̥ɨchɔ Yatù and Dene cognates, respectively). As (65) through (68) demonstrate, there is no readily apparent way to explain the copulas used with *-gha*:

- (65) amì **weghaelɿ** ha sù eyɿ gha  
 who **3-for-3-be(im)** fut foc that for  
 ekw'ɔɔ ts'ɨhdè.  
 dice 3p-throw(im)  
 ‘Let’s decide by lot who will get it.’ [Lit., ‘Let’s throw dice for who it will be for.’]

(T̥ɨchɔ Yatù; John 19:24)

- (66) Ts'èko honìdzaa sù wedɔzhì **ghaelɿ** hɔt'e.<sup>53</sup>  
 Woman 3-get married(pf)-nml foc 3-man **for-3-be(im)** 3-be(im)  
 ‘The bride belongs to the bridegroom.’

(T̥ɨchɔ Yatù; John 3:29)

<sup>53</sup> *Hɔt'e* in this sentence is presumably an auxiliary showing focus; see Section 4.2.2.4.

(67)	Nakwenàozqo Prophet	ayìi what	gho about	gogùde 3p-talk(pf)	ìlèe 3-be(pf)-nml
	sìi foc	<b>naxìgha</b> <b>2p-for</b>	<b>hòt'e</b> <b>3-be(im)</b>	eyits'q and	ìdèe back
	whaà, long time	Nòhtsì God	naxìcho 2p-ancestor	xè with	
		nakenawhehtsì 3-make peace(im)	sìi foc	<b>naxìgha</b> <b>2p-for</b>	<b>hòt'e</b> <b>3-be(im)</b>

‘And you are heirs of the prophets and of the covenant God made with your fathers.’ [Lit., ‘What the prophets spoke of is for you (plural), and the peace that God made with your (plural) ancestors back a long time ago is for you (plural).’ (Saxon, pc, 2008)]

(Tłıchq Yatı; Acts 3:25)

(68)	Setá 1s-father	memq, mother	setsu 1s-grandmother	segha 1s-for	t'oo 2s-father	aetsília paddle-dim
		thehtsıh 3-make(pf)	gots'eh and	kaséhndı, 3-say(pf)	netá 2s-father	ts'ánendı 2s-help(im)
		gha, for	<b>negha</b> <b>2s-for</b>	<b>hóqt'e</b> <b>3-be(im)</b>		

‘My father’s mother, my granny, made me a little paddle and said it was for me so I could help my father.’

(Dene; Sabourin, Jimmy, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:59)

Both (65) and (66) use the same construction, DP + *-gha + elı*, to express belonging.<sup>54</sup> However, in (67) and (68), the construction used is DP + *-gha + hòt'e/hóqt'e*. The contexts are similar. They are not distinguished according to the stage-/individual-level distinction: (65) and (66) contain a stage-level and an individual-level predicate respectively, but employ the same copula.<sup>55</sup> They are not distinguished by animacy: in (65), the complement of *elı* is inanimate, whereas in (66) it is animate.

<sup>54</sup> *Ghaelı* is listed as a verb in Saxon & Siemens 2007. However, the fact that it has become lexicalized in this way does not explain why *gha hòt'e* is sometimes used to express apparently the same meaning in similar contexts.

<sup>55</sup> Example (65) can be shown to be stage-level by the presence of the phrase *ekw'og ts'uhdè* ‘throw dice’. Consider how (in English) a stage-level predicate is grammatical in combination with this phrase, yet an individual-level predicate fails to be so:

- a) Let’s throw dice for who will be next.
- b) \*Let’s throw dice for who will be tall.

Example (65) is a classic case of a stage-level predicate, denoting “transitory and accidental properties”; it is difficult to imagine properties more accidental than those decided by a throw of dice.

When we consider the construction DP + *-ts'ɔ/-ts'e* + copula ('belong to'), on the other hand, we find that the only copula used is *hɔt'e/hóɔt'e*.<sup>56</sup>

- (69) D<sub>1</sub> sahcho nets'ɔ n̄ɪt'e?  
 this bear-big 2s-belonging to qn-3-be(im)  
 'Does this bear belong to you?' (my translation)

(T̄h̄chɔ Yatì; Grade 1 Dogrib Class 1995:13)

- (70) K'àowo ɬè zɔ naxits'ɔ hɔt'e.  
 Lord one only 2p-belonging to 3-be(im)  
 '...you have only one Master.'

(T̄h̄chɔ Yatì; Matthew 23:8)

- (71) ...ts'ejìh gots'ɛh gots'ɔné lah Nóhtsɪ ts'e h́ɔt'e.  
 ind-breathe and lp-soul foc Lord belonging to 3-be(im)  
 '...your breath and soul belong to Jesus.'

(Dene; Sabourin, Jimmy, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:61)

Examples (69) to (71) are typical; no instances of DP + *-ts'ɔ/-ts'e* + *elɪ* occur in the data.

Comparatives, on the other hand, use only *elɪ* after the postposition: (72) to (74) are representative of the T̄h̄chɔ Yatì data.<sup>57</sup>

- (72) Chɪɔ gnahk'e aahɪ hɔt'e!  
 Bird more than 2p-be(im) emph  
 'Are you not more valuable than [the birds]?'

(T̄h̄chɔ Yatì; Matthew 6:26)

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Example (66), by contrast, is individual-level, as the context makes clear that the sentence is generic ('All brides belong to...').

<sup>56</sup> N̄ɪt'e, in (69), results from fusion with the question particle *nì*.

<sup>57</sup> The standard postposition of comparison is *-ɔ́(ɔ́)/-ɔ́né/-ts'ɛɔ́/-ts'ɛɔ́né* in Dene (Rice 1989:1084-85); however, no examples of this postposition occur with a copula in either Rice 1989 or Thom, Blondin-Townsend & Macintosh Wah-Shee 1987. Since Dene Dzage copulas are discussed separately (Section 5.1.4), discussion of the comparison is here limited to T̄h̄chɔ Yatì.

- (73) Nòhtsì    Wenàowoò    k'èè    hòʔq̄q̄    gha    amì  
 God    3-society-POS    according to    3-exist(im)-nml    for    who  
           **denahk'e**            **el̩?**  
           **most**            **3-be(im)**

‘Who is the greatest in the kingdom of heaven?’

(T̩chq̄ Yatì; Matthew 18:chapter heading)

- (74) Zezì    Abraham    **nahk'e**    **el̩**  
 Jesus    Abraham    **compar**    **3-be(im)**  
 ‘Jesus is greater than Abraham’

(T̩chq̄ Yatì; John 8:47-48, section heading)

Expressions of belonging and comparatives are the commonest PP + copula constructions in the data, aside from cases where the PP is not clearly a complement. There are a two other constructions; neither of them appears more than twice. They appear in (75) and (76).

- (75) Ekúh    lah    gomq̄    gots'eh    detué    héh  
 Then    foc    1p-mother    and    refl-daughter    with  
           **el̩ts'éxq̄**    **ag̩t'é**  
           **recip-close**    **3p-be(pf)**

‘Mothers and daughters were very close then ...’

(Dene; Loutit, Liza, in Thom, Blondin-Townsend & Macintosh Wh-Shee 1987:16)

- (76) Dì    kò    d̩q̄    l̩q̄a    Christ  
 Now    though    person    many    Christ  
           **k'èch'a**    **g̩l̩l̩l̩**    s̩ì    hòt'a  
           **against**    **3p-be(im)-nml**    focus    already  
           d̩ì    nèk'e    nèg̩l̩de    hòt'e.  
           this    earth    3-arrive(pf)    emph

‘...even now many antichrists have come.’ [Lit., ‘many people who are against Christ have already come to this earth.’] (Saxon, pc, 2008)

(T̩chq̄ Yatì; 1 John 2:18)

In conclusion, it is impossible, based on the present data, to make inferences about the distribution of copulas with postpositional complements. The most that can be said is that in some cases, the choice is lexically determined: the T̩chq̄ Yatì comparative postposition takes *hòt'e*, as does *-ts'ò* ‘belonging to’; the Dene cognate of the latter follows the same pattern. However, in other cases, we cannot even say this much: *-gha* ‘for’ seems to occur with both copulas with equal ease, and there are several other postpositions about which we can say nothing for lack of data.

## 5.2 Auxiliaries and the stage-/individual-level distinction

We should now consider what the data that we have explored mean for the use of auxiliaries derived from the copulas. Work on the distinction between the Spanish copulas (Roldán, 1974:293-295) might lead us to suspect that the stage-/individual-level distinction between the copulas would apply to the auxiliaries based upon them as well. However, such is apparently not the case.

In T̥ɨchɔ Yatì, the stage-/individual-level distinction between the copulas does not seem to apply when they are used as the basis for auxiliaries.

Example (77) is a stage-level predicate while (78) is individual-level; both, however, employ the same auxiliary:

- (77) Kwe ghàts'eeda **hɔt'e.**  
 Rock 1p-look(im) **emph**  
 'We're looking at the rock.'

(T̥ɨchɔ Yatì; MS 106)

- (78) Sekwia siì weghɔnièhtɔ **hɔt'e.**  
 1s-grandchild-dim very 3o-1s-love(im) **emph**  
 'I really love my little grandchild very much.'

(T̥ɨchɔ Yatì; MS (98))

Examples (79) and (80) both employ the auxiliary *ɟlé/ɟlè*; once again, (79) is stage-level while (80) is individual-level.

- (79) Hanikò Zezì dètɨ **ɟlè.**  
 But Jesus 3-sleep(pf) **past**  
 'But Jesus was sleeping.'

(T̥ɨchɔ Yatì; Matthew 8:23)

- (80) Dɔ weza nàke gòhɨ **ɟlè.**  
 Person 3-child two ar-3-be(im) **past**  
 'There was a man who had two sons.' [Lit., 'There were a man's two children.']

(T̥ɨchɔ Yatì; Matthew 21:28)

Similarly, in the Dene Dzage data, (81) is individual-level while (82) is stage-level; both employ auxiliaries based on *\*-T'E'*:

- (81) endúé ests'édāné yēnesen ghólí **lēst'ā**  
 no my children I love even **I am**  
 so

'No, I really love my children.' (individual-level)

(Dene Dzage; John, Arthur, in Moore 1999:405)

- (82) Yē            etsén                            l̥            yéh    l̥    mest'je    doge  
 what            meat                            was            with    was    marten    for  
                                  yanahan'ā                            et'ā  
                                  he set on trigger    **it is-question**

‘What kind of meat did they use on the trigger of those marten deadfalls?’

(Dene Dzage; Charlie, Mary, in Moore 1999:261)

Unambiguous pairs of this sort are not present in the Dene data. Nevertheless, it seems clear that in neither T̥chq̥ Yat̥ nor Dene Dzage does the distinction between stage-level and individual-level predicates govern the choice of auxiliaries. We shall see what does in the next section.

### 5.3 Auxiliaries and tense-aspect-mode categories

This section summarizes the distributional differences between auxiliaries based on *\*-L̥l̥* and those based on *\*-T'E'*, and shows that while they are not distinguished according to the stage-/individual-level distinction, there is a pattern: *\*-L̥l̥*-stem auxiliaries are used to signal distinctions in the tense/aspect/mode system, while *\*-T'E'*-stem auxiliaries have no TAM function. As we found in Chapter 4, auxiliaries based upon *\*-L̥l̥* are used in forming TAM categories that are non-present or irrealis. Auxiliaries based upon *\*-T'E'* serve to indicate focus or emphasis.

**Table 6: functions of auxiliaries**

Stem		Language			
		T̥chq̥ Yat̥	Dene	Dene Dzage	
<i>*-L̥l̥</i>	TAM functions	past	ɣlè	ɣlé yɣlé lé	no data
		modal	elì    welè welì    wilì	olì olé wolé	ulé    ulé' uléi    ulei uléli    ulēi
<i>*-T'E'</i>	no TAM function	focus	h̥ot'e            m̥áyt'e h̥óyt'e            m̥áyt'é	lēt'ē et'ē	

As we saw in Section 4.2.2.1, auxiliaries based upon *\*-L̥l̥* are used in T̥chq̥ Yat̥ (*ɣlè*) and Dene (*ɣlé*, *yɣlé*, *lé*) to indicate past tense. Furthermore, the T̥chq̥ Yat̥ auxiliaries *welì*, *elì*, *wilì* and *welè*, and their Dene cognates *olì*, *olé* and *wolé* are used to indicate a variety of irrealis categories such as future tense, possibility, uncertainty or wish (Section 4.2.2.2). What is notable about

these facts is that all of these auxiliaries are built on the *\*-L̥l̥* stem and all impart TAM meaning to their complements. When we examine the auxiliaries that are built on the *\*-T'E'* stem, we find that they have a number of functions (Sections 4.2.2.3 and 4.2.2.4), such as emphasis or evidentiality, but that none of these auxiliaries impart TAM

meaning. The implication is that there may be a conceptual link between the  $*-L\acute{I}\acute{I}$  stem and TAM distinctions.

#### **5.4 A connection between copula and auxiliary distinctions?**

The purpose of this section is to claim a conceptual link between semantic distinctions among auxiliaries and those among the copulas. Further, we will suggest that this conceptual link was a motivator in the historical formation of the auxiliaries. We will propose that the stage-level meaning attached to copulas formed on  $*-L\acute{I}\acute{I}$  led to the formation of TAM auxiliaries based on this stem. We will support this claim by demonstrating that stage-level predicates have a conceptual connection to a spatiotemporal locative, whereas individual-level predicates do not.

Furthermore, spatiotemporal locatives can be seen as central to the operation of grammatical tense. Therefore, we will also suggest that the stage-level copula was the basis for the formation of auxiliaries that impart TAM information, and that the individual-level meaning attached to copulas formed on  $*-T'E'$  blocked the formation of TAM auxiliaries on this stem. Our conclusion will be that the extension of forms of the stage-level copulas to indicate TAM distinctions is an expected result, whereas an association of individual-level copulas with TAM distinctions is not predicted by our model.

In order to justify our statement that stage-level predicates have a connection to spatiotemporal location that individual-level predicates do not share, Section 5.4.1 contains a summary of Kratzer's (1989/1995) treatment of stage- and individual-level predicates. In 5.4.2 we discuss Demirdache and Uribe-Etxebarria's (2000, 2004) theories of temporal grammar, and show that spatiotemporal locatives are also the key to their theory of tense.

In 5.4.3 we present a way to unify Demirdache and Uribe-Etxebarria's theories of tense with Kratzer's treatment of the distinction between stage- and individual-level predicates. In 5.4.4 we show that there are similarities between the conceptual structures of stage-level predicates, existentials, and tensed predicates. On the basis of these similarities, we can provide a plausible account for a historical extension by analogy of the stage-level copula to a role in forming TAM auxiliaries. The individual-level copula, on the other hand, lacks strong motivation for extension to such a role.

##### **5.4.1 Stage-level and individual-level predicates**

In Kratzer's (1989/1995) analysis of individual- and stage-level predicates, the distinction she draws between them rests on the presence of a spatiotemporal variable in stage-level predicates, a variable that individual-level predicates lack. Thus, sentences like (83) are tied to a particular point in space-time, while sentences like (84) are not:

(83) Kim is a spectator at the game.

(84) Kim is a Canadian.

Musan (1997), Jäger (2001) and Ogawa (2001) have all pointed out ways in which this analysis can be refined. However, the essential point is that sentences like (83) differ

from those resembling (84), and that this difference has to do with how they interact with time.

We have already (in Section 5.1.2) visited the idea that the difference of “transience” versus “permanence” that characterizes the opposition of (83) and (84) is a relative difference only: being a Canadian, or even being human, is not necessarily an eternal condition. Musan (1997:276) distinguishes between the *situation time* of a predicate, and the *time of existence* of an individual, and proposes that it is the interaction of these two times that creates the stage-/individual-level distinction. Even this analysis, however, is somewhat oversimplified, as an individual-level predicate like *be a Canadian* does not necessarily have to obtain even for the time of existence of an individual. For the purposes of this thesis, we will define an individual-level predicate as a condition whose duration is tacitly *presumed* to be eternal by speaker and listener. The existence of this assumed eternity is an underpinning of our analysis of the distinction in Tłı̄chǝ Yatı̄ and Dene between copulas based on  $*-L\ddot{I}\ddot{I}$  and those based on  $*-T'E'$ , and of the conceptual link between the former and tense, which we will explore in Section 5.4.3.

#### 5.4.2 Demirdache and Uribe-Etxebarria’s temporal grammar: extension to Northern Athabaskan

Just as Kratzer’s (and Musan’s) analysis of stage- and individual-level predicates is the basis for our analysis of the difference between the two types of copula, Demirdache and Uribe-Etxebarria’s (2000; 2004) articles on temporal grammar will be central to our understanding of tense and aspect. Demirdache and Uribe-Etxebarria treat tense and aspect according to the following definition (2000:144):

Tense relates the time of utterance (UT-T) to a reference time: the *assertion time* (AST-T). Aspect then relates the AST-T to the time at which the event denoted by the VP occurs or holds (EV-T). We derive this proposal from the theory that tenses and aspects are dyadic predicates of *spatiotemporal* ordering, defined in terms of (non)central coincidence in the location of the figure with respect to the ground.

Fundamental to their system is the idea that every tensed predicate contains a spatiotemporal locative. Their system uses three operators, BEFORE, AFTER and WITHIN, to denote relationships between UT-T, AST-T and EV-T.<sup>58</sup>

Aspect is seen as the way in which the operators connect AST-T and EV-T. The progressive “looks inside” the temporal contour of an event, seeing it as ongoing (Demirdache and Uribe-Etxebarria, 2000:160): in *It is raining*, the beginning and the end of the period of rain are outside the temporal focus of the predicate (the Assertion Time). Assertion Time is therefore described as being WITHIN Event Time. The English perfect, by contrast, sees an event as a complete whole, without examining its internal

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<sup>58</sup> There is some variation in the terminology used in this area of syntax and semantics. Thus *assertion time* is referred to by other authors as *reference time*; *situation time* is also sometimes used in the sense in which Demirdache and Uribe-Etxebarria use *event time*. For the sake of simplicity, and because my argument is rooted in their system, I adopt Demirdache and Uribe-Etxebarria’s terms.

structure: Demirdache and Uribe-Etxebarria therefore analyze it as placing Event Time BEFORE Assertion Time.

Tense is seen as the relationship between Utterance Time and Assertion Time. Since present tense invariably describes situations that have some existence outside the present moment, it is analyzed as Utterance Time WITHIN Assertion Time.<sup>59</sup> Past and future tenses, of course, place Utterance Time AFTER or BEFORE Assertion Time.

This analysis allows Demirdache and Uribe-Etxebarria not only to unify tense and aspect into a single system, but incidentally to use this system to evolve the perfect as a product of the interaction of tense with aspect.

Demirdache and Uribe-Etxebarria's description and analysis is tailored to traditional English TAM categories. However, it is possible to describe the Athabaskan perfective using the analysis that they apply to the English perfect.<sup>60</sup> Furthermore, their definition of the progressive, which states that it "focuses a subinterval of the time that defines the event" (Demirdache and Uribe-Etxebarria, 2000:166) is close to the standard description of imperfective, of which the progressive is generally considered a sub-aspect in any case (Comrie, 1976:25).<sup>61</sup>

Therefore, despite its focus on English, Demirdache and Uribe-Etxebarria's system is well suited to describing the perfective/imperfective distinction that we find in Athabaskan languages. Henceforth, to avoid confusion, we will use the terms "perfective" and "imperfective" to refer to Demirdache and Uribe-Etxebarria's aspectual opposition when applied to Athabaskan languages. Since viewpoint aspect is signaled morphologically in these languages, and tense, as we have seen, syntactically (by the use of auxiliaries), they are two distinct systems, each of which can be paired with its own temporal argument. This is unlike the situation in most Indo-European languages, where tense and aspect are often morphologically fused.<sup>62</sup>

### 5.4.3 The stage-/individual-level distinction and temporal grammar

Demirdache and Uribe-Etxebarria's analysis unifies tense and viewpoint aspect in a single theoretical framework; in Demirdache and Uribe-Etxebarria 2004 they extend this framework to cover time adverbials as well. It is logical, then, to attempt a further extension to cover the stage-/individual-level distinction, since, under our assumptions, it also depends upon a temporal argument.

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<sup>59</sup> Even momentaneous achievements ("He shoots! He scores!") have non-zero duration.

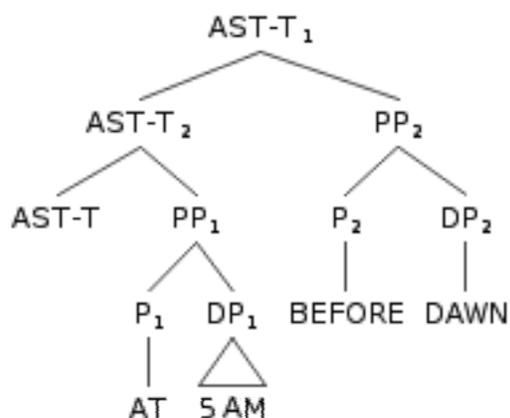
<sup>60</sup> The authors assert that perfective aspect, as distinct from perfect, can be analyzed as having EV-T identical to AST-T (Demirdache and Uribe-Etxebarria, 2004:151). However, in their system, such an analysis is difficult to represent. In the Athabaskan languages, the perfective is strongly associated with completive meaning (Rice 2000:247, Wilhelm 2007), and hence with AST-T being AFTER EV-T.

<sup>61</sup> The Northern Athabaskan languages have a progressive aspect, a morphologically marked sub-aspect (Moore, 2002; Rice, 2000), which, however, is beyond the scope of this thesis.

<sup>62</sup> In the French sentence *Il en parlait* 'He was talking about it', for example, the suffix *-ait* denotes (along with third person singular) both past tense and imperfective aspect.

Unfortunately it is impossible to do this without adding to the tools at hand. There is no way to make further combinations of UT-T, AST-T, and EV-T with BEFORE, AFTER and WITHIN beyond what Demirdache and Uribe-Etxebarria have used to create the interaction of tenses and aspects.<sup>63</sup> It is necessary, rather, to treat the distinction as Demirdache and Uribe-Etxebarria have treated time adverbials (2004:152ff.). In their analysis, AST-T is adjoined to a PP that expresses temporal location: thus, in (85), the PPs *at 5 a.m.* and *before dawn* are adjoined to AST-T, according to the tree structure in Figure 9:

(85) Maddi was born at 5 a.m., before dawn.  
(Demirdache and Uribe-Etxebarria 2004:158)



**Figure 9: Structure of a PP spatiotemporal locative (Demirdache and Uribe-Etxebarria 2004:158)**

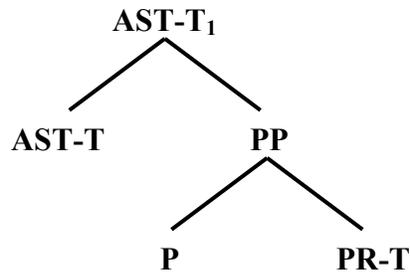
This is a structure that can easily be adapted to include the idea of a tacitly-agreed presumptive eternity that we met in Section 5.2.1. If we accept that a stage-level predicate is tied to a specific spatiotemporal location, while an individual-level predicate is tied only to such a presumed eternity (hereinafter referred to as Presumptive Time, or PR-T), and that furthermore this Presumptive Time is the focus of the “aspectual lens”, we can represent a sentence like *Henry is French* with the time structure in Figure 10, where PR-T replaces the spatiotemporal adjunct:

<sup>63</sup> BEFORE and AFTER, being ordering operators, are not relevant to the stage-/individual distinction. The only remaining operator, WITHIN, is exhaustively used by the following TAM categories:

UT-T WITHIN AST-T: present tense

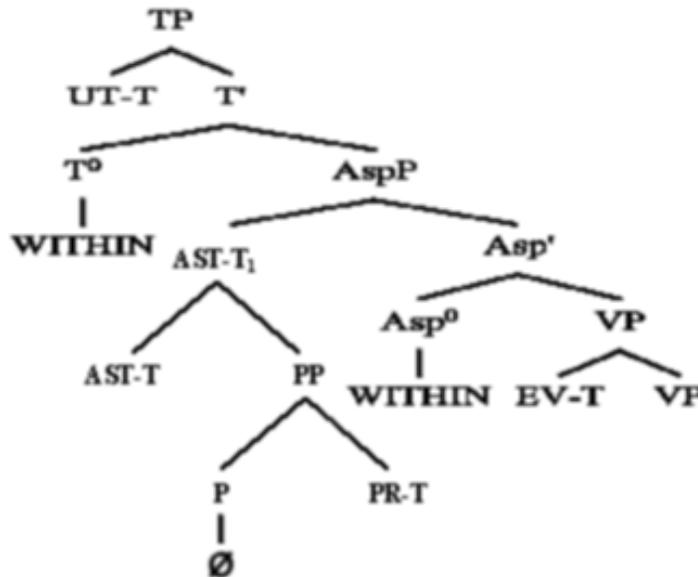
AST-T WITHIN EV-T: imperfective aspect

Since TP, with UT-T as its Specifier in the authors’ system, contains AspP (with AST-T as its Specifier), which in turn contains VP (and its Spec, EV-T), it is impossible to have AST-T WITHIN UT-T or EV-T WITHIN AST-T.



**Figure 10: Assertion Time and Presumptive Time in individual-level predicates**

In this structure, AST-T is defined in relation to PR-T, just as *at 5 AM* and *before dawn* are defined in (85) and Figure 9. Since the sentence is imperfective, AST-T is also WITHIN EV-T, as in Figure 11:



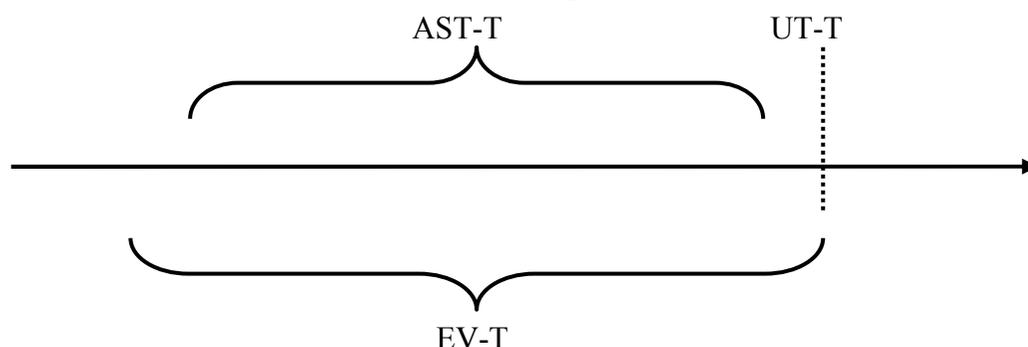
**Figure 11: Temporal structure of Henry is French**

As AST-T, and therefore PR-T, is WITHIN EV-T, the duration of the event is made equal to or greater than the boundaries of the presumed temporal universe. This follows Musan's (1997:276-277) analysis of individual-level predicates: in *Henry is French*, the duration of his being French is presumed to be equal to or greater than the duration of Henry (or the duration of characterizing statements about Henry).

Replacing PR-T with a spatiotemporal location has the effect of defining boundaries to the temporal focus of the predicate. That is, a possible (though extremely marked) interpretation of *Henry is French* is stage-level: he is French at the moment, but at any time he could decide to change his nationality. The stage-level interpretation can be forced by making the location explicit: *Henry is French now*.

An implication of Musan's analysis is that changing the tense of the sentence should simply move the temporal focus of the sentence into the past or future, so that UT-T is AFTER or BEFORE AST-T. As can be seen in Figure 12, AST-T remains WITHIN EV-T (since the relationship between these two times is indicated by aspect

rather than tense). However, the relationship between EV-T and UT-T is undefined.



**Figure 12: Relationship between times in the PAST-tense sentence *Henry was French***

Two possible readings follow from these facts, depending upon the understanding of AST-T.

If AST-T is understood in relation to a spatiotemporal locative (even an unspoken one), no assertion is made about Henry’s own duration. Instead, the duration of his Frenchness is merely claimed to equal or exceed that of some particular time (for example, *Henry was French from 1969 to 2007*). He may be no longer a French citizen, but nothing is being claimed about his own duration.

If AST-T is understood in relation to PR-T, however, the situation changes. Now the Utterance Time, in being AFTER AST-T, is also AFTER PR-T (which, as we recall, is the duration of our universe of discourse—Henry). In other words, Henry has ended at or before the time his Frenchness has.

Thus, modeling individual-level predicates by replacing the spatiotemporal locative with a presumed universe of discourse results in a prediction that the past tense of a normally individual-level predicate shows what is called a “lifetime effect” in the literature – if the interpretation remains individual-level, the lifetime of the individual is interpreted as finished: *Henry was French* may have either a stage-level interpretation, in which he has changed his citizenship but may be alive and well, or an individual-level one, in which he is dead. This prediction is certainly correct with regard to English. Does it hold up in the languages of study? As the following examples demonstrate, it does in Ṭḥcḥq̣ Yaṭi:

- (86) Ṣ̣ ṣ̣ g̣ita gots'q̣ denahk'e  
 I foc 3p-among ar-from most  
 họ̣-họ̣-ḍq̣ aht'e ̣̣ḷè  
 sinner 1s-be(im) past  
 ‘Sinners... of whom I am the worst.’ (Lit., ‘I was the greatest sinner from among them.’)  
 (Ṭḥcḥq̣ Yaṭi: 1 Timothy 1:15)

Since Paul is speaking about himself, clearly (86) does not imply that he is no longer alive. However, in (87) there is clearly a lifetime effect:

- (87) K'àowo, eyɪ dɔ-ghɔyaɛɛ̀aa-dɔ̀ò **hɔt'e** ɟlè.  
 Lord that deceiver **3-be(im)** past  
 ɟlaà eda ekò...  
 Still 3-live(im) when  
 'Sir... while he was still alive that deceiver...' [Lit., 'he was a deceiver.  
 When he was still alive...']  
 (T̥ɕhɔ Yatì: Matthew 27:63)

In (87), the subject of the sentence is no longer alive, but was a deceiver while he lived. Thus we see that in this language as in English, adding the past tense to an individual-level characterizing statement may give rise to either a stage-level or an individual-level interpretation.<sup>64</sup>

By combining Kratzer's and Musan's analysis of the stage-/individual-level distinction with Demirdache and Uribe-Etxebarria's temporal grammar, we have produced a model that treats the stage-/individual-level distinction as related to the temporal grammar. In the case of "lifetime effects", this model is predictive not only for English, but for T̥ɕhɔ Yatì. We can therefore conclude that for present purposes our proposal of a conceptual link between the stage-/individual-level distinction and temporal distinctions is plausible.

It seems clear that we have reached the following generalizations about the semantics of copulas and the auxiliaries based on them:

- In T̥ɕhɔ Yatì and in Dene, the selection of copulas with nominal complements depends largely on whether predicates are individual-level or stage-level.
- The selection of auxiliaries based upon these copulas depends upon whether the auxiliary marks TAM categories, specifically tense and modality.
- The distinction between individual-level and stage-level predicates can be seen as related to viewpoint aspect in particular, and (at least in T̥ɕhɔ Yatì) affected by tense.

These generalizations hint at one of the key proposals of this thesis: that historically, the  $*-L_{II}'/*-T'E'$  distinction in the copulas is the motivator for the distinction in the development of the auxiliaries. We will explore this proposal in the next section.<sup>65</sup>

<sup>64</sup> There are insufficient data available to me to apply this test to Dene or Dene Dzage.

<sup>65</sup> It would also be possible to analyze individual-level predicates as lacking EV-T altogether. I have not followed this analysis, for several reasons. First, a lack of EV-T implies unboundedness: an additional stipulation must be made that individual-level predicates apply for the life of the subject. Secondly, as AST-T is the only one of the three times that is artificially created for discourse purposes (both EV-T and UT-T being anchored in the observable world), it is a natural site for an artificially presumed eternity. Finally, in Demirdache and Uribe-Etxebarria's system, aspect defines the relationship between AST-T and EV-T: without EV-T, aspect cannot exist. Since individual-level predicates do not involve true eternity, they represent a blurring of the aspectual lens rather than its absence.

#### 5.4.4 A semantically-motivated historical change?

The development of auxiliaries has been explored in great detail in recent years (Anderson, 2006; Dik, 1987; Heine, 1993; Hopper & Traugott, 1993; Roberts & Roussou, 2003). These authors and others have documented numerous routes by which auxiliaries arise out of origins in other categories.<sup>66</sup> What concerns us here, unsurprisingly, is just one of these routes: the auxiliiation of copulas.

The copula is one of the most important sources for auxiliaries cross-linguistically; furthermore, TAM categories are among the most common functions of auxiliaries, along with (among other things) evidentiality or emphasis (Dik, 1987:53; Heine, 1993:16). Therefore, to see auxiliaries based on forms of the copulas and expressing these three sorts of grammatical information is not unusual.

Whether auxiliaries existed in proto-Athabaskan is not a question that we can explore here. However, their occurrence in all three of the languages of study makes it likely that their development antedates these languages' separation from their common origin. We do know, of course, that the copulas themselves date to Proto-Athabaskan (Leer, 1979; Young, Morgan, & Midgett, 1992). Therefore, for present purposes we will assume the following:

- the auxiliary verbs based upon the stems *\*-Lǰǰ* and *\*-T'E* developed from the copulas based on those stems
- the auxiliaries arose subsequently to the copulas (a necessary condition for the previous assumption) but at some time before the division of Proto-Northern Athabaskan into the Mackenzie and Cordilleran subgroups

We here lay out the case that the development of the auxiliaries was semantically motivated.

There are common conceptual elements to the distributional division between the copula stems in Tłı̨chǰ Yatı̨ and Dene. We have seen (in Section 5.4.3) that the stage-/individual-level distinction that we see in the uses of copulas with nominal complements can be viewed as an aspectual distinction, with individual-level predicates being a “special case” of viewpoint aspect, a case in which the “lens” of viewpoint aspect is left even blurrier than in Imperfective Aspect with regard to the beginning and end points of an event or state. The copula that marks individual-level predicates, *ats'ǰ(j)t'e*, could thus well be seen as essentially unfocused with regard to temporal placement of events. By contrast, *ts'ǰ(j)ǰ*, the copula that marks stage-level predicates, is intimately concerned with time. Stage-level predicates, by their nature, are treated by the grammar as temporally limited, a limitation formalized by Carlson (1977) and Kratzer (1989, 1995) as a spatiotemporal variable.<sup>67</sup> We shall now explore how and why the extension of the copulas to auxiliary uses might have taken place.

<sup>66</sup> See especially Roberts & Roussou 2003:35-72.

<sup>67</sup> The fact that, following Musan (1997), this work also recognizes a temporal dimension to individual-level predicates (to account for “lifetime effects”) should not distract us from seeing that the individual-level association with time is not only less focused, but less *capable* of being focused, since the PR-T that distinguishes individual-level predicates replaces a spatiotemporal variable of the kind described by Demirdache and Uribe-Etxebarria (2004).

#### 5.4.4.1 A mechanism for the historical development of the TAM auxiliaries

Both tense and aspect can be seen as involving the concept of anteriority: that is, whether one time is prior to another, as demonstrated in (Demirdache and Uribe-Etxebarria, 2000), and as we saw in Section 5.4.3. This fact, when combined with our assumptions (following Rice 2000) about semantic scope, yields the result that placing one viewpoint aspectual marking within the scope of another creates a tense distinction. Consider the following data:

- (88) Edı        elı.  
           Hot    **3-be(im)**  
           ‘S/he has a fever.’

(Tı̄chq̄ Yatı̄; MS 14)

Example (88) is unmarked for tense, but its imperfective marking shows that it is seen “from within” – that is, the endpoints are out of view (AST-T WITHIN EV-T). Changing the aspect to perfective brings the endpoint into focus:

- (89) Edı        ılè.  
           Hot        **past**  
           ‘S/he had a fever.’

(Tı̄chq̄ Yatı̄; MS 15)

Example (89) can be analyzed as having AST-T AFTER EV-T. Now consider (90):

- (90) Daats’q̄    edı        elı        ılè.  
           Always    hot    **3-be(im)**    **past**  
           ‘S/he was always feverish.’

(Tı̄chq̄ Yatı̄; MS 17)

The perfective *ılè*, having *edı elı* within its semantic scope, adds a degree of anteriority to it: to the WITHIN relationship that *elı* gives to AST-T and EV-T, a further AFTER is appended: we recall that this is the definition of a perfective in Demirdache and Uribe-Etxebarria’s terms. However, it is already established that AST-T is WITHIN EV-T; thus, any anteriority must be in relation to a third time. Thus the relationship between AST-T and UT-T is created, and the postposed perfective becomes a tense marker.

We can make similar suggestions about the derivation of modal markers of possibility or desire. These are related to aspectual categories, insofar as, the future being unknowable, any claims regarding it must be intentive or predictive rather than wholly definite. Such modal categories can thus be seen as also partaking of an anteriority relationship, subject to the extent of human knowledge.

- (91) Dɔ nets'ò gode nɔ̀dè, wɛ̀hkw'ɔ weli.  
 Person 2s-to 3-speak(im) if 3o-2s-listen(im) fut  
 'If that man speaks to you, may you listen to him.'  
 (Tɔ̀chɔ̀ Yatì; MS 129a)

In (91), *wɛ̀hkw'ɔ* is within the scope of *weli*, and, having its own aspectual marking, “stacks” with that of *weli* in a parallel manner to that of the main verb and auxiliary in (90). The optative marking on *weli*, denoting a BEFORE relationship (epistemically limited) conveys this relationship to the elements within the scope of *weli*.

It is likely that the auxiliaries arose through the following schema:

**Embedded clausal verb + zero COMP + matrix copula > Main verb + auxiliary**

this being a common route by which auxiliaries are created (Heine, 1993:38).<sup>68</sup>

Since the TAM markers based on *\*-Lɔ̀ɔ̀* all lack person markers (and are therefore by default third-person), it is likely that the meaning of the progenitors of a sentence like (91) could well have been ‘If that man speaks to you, may it be that you listen to him.’ The same kind of embedded clause structure could have accounted for (90): ‘It was that she was always feverish.’

Similarly, the use of the individual-level copula based on *\*-T'E'* for emphasis or focus, that we see in sentences like (92), could easily have arisen out of assertions like ‘it’s that we’re looking at the rock,’ or ‘the thing is, we’re looking at the rock,’ a construction used in many other languages (for example, modern English, French and Korean) to add emphasis or focus.

- (92) Kwe ghàts'eeda hɔ̀t'e.  
 (rep. 77) Rock 1p-look at(im) emph  
 'We are looking at the rock.' (emphatic)  
 (Tɔ̀chɔ̀ Yatì; MS 106)

#### 5.4.4.2 TAM and the blocking of *\*-T'E'*

The question of how TAM markers might have been blocked from arising from *\*-T'E'*-copulas can be resolved by revisiting once more the distinction between stage- and individual-level predicates. Stage-level predicates have been described as “slicing” an individual into temporal stages. It is TAM categories, as we have seen, that are important in placing the temporal cuts.<sup>69</sup> They play a far less significant role with individual-level predicates, limited perhaps to transforming them into stage-level predicates. It would be natural for speakers to associate the stage-level copula with tense, aspect and mode, both because stages are partly aspectual in nature and because, for this very reason, the stage-level copula would appear more often regularly in non-present

<sup>68</sup> We must leave unresolved which of Heine’s subschemas (Equation and Serial) is involved here, as the evidence is inconclusive.

<sup>69</sup> I am grateful to Dr. Ken Hiraiwa for this analogy.

TAM forms than the individual-level copula. Therefore, in modifying the TAM marking of predicates, aspectually marked forms of the stage-level copula, not the individual-level copula, would be the natural choice.

### 5.4.4.3 Implications for the existentials

If we accept the proposal that the extension of copulas based on  $*-L\check{J}\check{J}$  to TAM functions was motivated by a shared conceptual connection to spatiotemporal variables, there are implications that provide a side benefit for an analysis of the existentials. Existentials have been analyzed as connected to spatiotemporal locatives; Lyons (1967:392) considers English existential *there* to be derived from locative *there*, and adds that “it might appear reasonable to say that all existentials [sic] sentences are at least implicitly locative (the term ‘locative’ being taken to include both temporal and spatial reference)” while Francez (2006) says of the function describing the semantics of existentials, “When an existential is uttered, the time and/or location about which the statement is made, i.e. the topic time/location, are fed to this function...”

Assuming such to be the case, it is plausible to take spatiotemporal reference as the motivator for the development of the existentials exclusively from the  $*-L\check{J}\check{J}$ -stem copulas. We have seen that spatiotemporal reference is also key to the semantics of stage-level predicates, as it is, naturally, to tense. The stage-level copula would thus be the conceptually natural choice as a basis for existential verbs, just as it would be for TAM markers.

## 5.5 The case of Dene Dzage and the Cordilleran/Mackenzie division

In this section, we revisit the differences between Dene Dzage and the other two languages of study in their use of copulas and auxiliaries and draw conclusions from these differences. Section 5.5.1 shows that a distinction between  $*-L\check{J}\check{J}$  and  $*-T'E'$  is present in Athabaskan languages beyond the three languages of study. Section 5.5.2 proposes that the absence of a distinction between the copulas in Dene Dzage results from a historical innovation separating it from the Mackenzie languages, and adduces two pieces of evidence for this claim. The first, and stronger, is that the presence of a distinction in other Athabaskan languages suggests it is an old feature in the family, not an innovation in Tłı̨chǫ Yatı̀ and Dene. The second, and more circumstantial, piece of evidence is that since auxiliaries tend to be formed from main verbs, and a distinction between  $*-L\check{J}\check{J}$  and  $*-T'E'$  auxiliaries exists in Dene Dzage, it is probable that the analogical change parallel to that proposed for the other two languages also affected Dene Dzage, and thus that the motivator for that change existed in Dene Dzage as well. If true, this probability points to a disappearance of the distinction between the Dene Dzage copulas subsequent to the development of a distinction in the auxiliaries, and subsequent as well to the separation of Dene Dzage from the Mackenzie group.

### 5.5.1 Distinctions between \*-Lǰǰ and \*-T'E' in other Athabaskan languages

Languages beyond Tłı̄chǰ Yatı̄, Dene and Dene Dzage show distinctions between the copulas. We have seen that a distinction in their uses exists in San Carlos Apache (see Footnote 3, Section 5.1.3), and in Navajo (Young et al., 1992:538). Inasmuch as lexical and grammatical distinctions of this sort arise from semantic characteristics (an assumption this thesis rests upon), some kind of semantic distinction in Proto-Athabaskan may underlie the distributional differences that we see today. At any rate, the occurrence of copula distinctions in widely separated languages of the family suggests that the \*-Lǰǰ/\*-T'E' division is an old feature. This being so, what can we make of its apparent absence in Dene Dzage?

### 5.5.2 Innovation in Dene Dzage?

The TAM auxiliaries in particular are used in strikingly similar ways in the three languages of study. In (93) to (95), all three employ optative forms of \*-Lǰǰ to signal possibilities or wishes:

- (93) Ayı̄    yegha    nàyeehdı̄    **welı̄?**  
 What    4-for    3-buy(im)    **fut**  
 ‘What should she buy for him?’

(Tłı̄chǰ Yatı̄; MS 80)

- (94) Thá    ité    **olı̄**    enehthę.  
 Long    1s-slept    **fut**    1s-want  
 ‘I want to sleep long.’

(Dene; Rice 1989:418)

- (95)    Ehsen’ān    **ulé’.**  
 You may have    **will be.**  
 ‘...you may have a little food left.’

(Dene Dzage; Charlie, Mary, in Moore 1999:235)

In (96) to (99), perfective forms of the same copula are used as auxiliaries in Dene and Tłı̄chǰ Yatı̄:<sup>70</sup>

<sup>70</sup> For reasons already mentioned, it is often difficult to tell perfective from imperfective forms of *dzelin* in Dene Dzage. Therefore, (98) should be taken with some caution.

- (96) Jerusalem wexè yati ha t'à ekq ts'ò  
 Jerusalem 3-with 3-pray(im) fut because then to  
 èhtła ɬlè.  
 3-go(pf) past  
 'This man had gone to Jerusalem to worship.'

(Tł̥chq̥ Yatì; Acts 8:27)

- (97) Niagénit'e ɬlé setsu ezɦh sah kíı  
 3p-return past 1s-grandmother that bear just  
 medzié húle lq gháenda.  
 3-ears ar-be none surprise 3-notice(pf)  
 'When they returned granny noticed the bear had no ears.'

(Dene; Sabourin, Jimmy, in Thom, Blondin-Townsend & Macintosh Wah-Shee 1987:59)

- (98) I dágetsedle mek'ánahtān éł̥n.  
 That small part he sees it he is.  
 'He could see a little bit of something exposed.'

(Dene Dzage; Charlie, Mary, in Moore 1999:263)

Nevertheless, as we saw in Section 5.1.2, no stage-/individual-level distinction apparently exists between the copulas in Dene Dzage. If we propose that such a distinction was a motivator in the development of TAM auxiliaries formed from *\*-L̥ł̥ł̥* in the other two languages, how do we explain its absence in Dene Dzage, which also forms TAM auxiliaries formed only from *\*-L̥ł̥ł̥*?

The existence of copula distinctions in languages as far afield as Navajo and Apache suggests that such distinctions are a family-wide, and very old, phenomenon (Section 5.5.1). Since they exist also in Tł̥chq̥ Yatì and Dene, both much more closely related to Dene Dzage, it is very likely that Dene Dzage once had the distinction as well. However, a tantalizing feature of historical linguistics is the tendency for subsequent changes to erase evidence of previous changes. To take an example from historical phonological change, the umlaut process that fronted the first vowels of Old English *fōtis* and *gōsis* to *fētis* and *gēsis* under the influence of the following vowel *i*. The subsequent deletion of the plural suffix *-is*, leaving modern *feet* and *geese*, rendered the first process difficult to detect for historical linguists. Therefore, we can do little more than speculate about the lack of a distinction between the copulas of Dene Dzage; however, were such a distinction, once existing, to motivate the development of TAM auxiliaries before itself vanishing, the resulting situation would be what we see today.

In any case, the radical differences in the use of copulas that we find between Dene Dzage and the other two languages constitutes an additional piece of evidence in favour of a historical divergence between the Cordilleran and Mackenzie branches of Northern Athabaskan languages.

We are now nearing the end of our journey through the Northwest Passage of auxiliary verbs. In the next chapter we shall take stock of what we have seen.

## 6 Conclusions

Investigating the grammar of the Northern Athabaskan copulas has uncovered answers to the research questions that were posed in Chapter 1; it has also, however, raised other questions that are as yet unanswered. Furthermore, the answers that have appeared suggest theoretical implications that will need to be explored.<sup>71</sup>

### 6.1 Answers to the research questions

This thesis argues that the distributional differences between the copulas in both Tłı̄chǫ Yatı̄ and Dene can be explained best by positing a stage-/individual-level distinction. We have seen evidence from both languages supporting this proposal. It is true that there is also evidence that the stage-/individual-level distinction does not explain all of the facts of copula choice: in particular, copulas with PP complements stand out as being difficult to reconcile with our proposal at the current stage of investigation. Additionally, certain semantic domains, such as names of professions for example, seem to require one copula or the other in a way that appears lexically rather than semantically conditioned. What seems clear, however, is that a broad pattern exists whereby copulas based upon the reflexes of Proto-Athabaskan *\*-Lǫǫ* are preferred for stage-level predicates, while those based upon reflexes of *\*-T'E'* are preferred for individual-level.

Another argument of this thesis has been that distinctions among the various auxiliary verbs based upon the copulas can also be explained with reference to semantic differences. All auxiliaries based upon *\*-Lǫǫ* are used to indicate TAM distinctions, such as past tense, intentionality or probability. No auxiliaries based upon *\*-T'E'* are apparently so used: this dichotomy can be seen as evidence for a semantic distinction between the two stems. When we consider this fact concerning the auxiliaries in concert with a characterization of the stage-/individual-level distinction as essentially aspectual in nature, we find that we can draw a conceptual link between two distinctions that are both temporally based. We can thus postulate a mechanism in the historical development of the auxiliaries whereby the temporally specific copulas based upon *\*-Lǫǫ* were preferred for indicating temporal distinctions over the temporally non-specific copulas based upon *\*-T'E'*.

With regard to the question of why apparent post-verbal copulas sometimes show agreement with the subject of the verb in their scope, but sometimes do not, we have seen that a possible explanation is that the former case is one of a true copula with a nominalized verb as complement; such a copula would show subject agreement, like any identificational or class-inclusion copula with two nominal arguments. Copula-like forms that show no subject agreement are, under this analysis, auxiliaries rather than true

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<sup>71</sup> In part these unanswered questions are a result of the limitations of this thesis: relying largely on textual sources often prevents the researcher from discovering facts that could be determined easily by consulting native speakers. Furthermore, some characteristics of the texts themselves have imposed limitations: the fact that one major source of data is a translation from English raises the possibility of artifacts of translation that might not appear in a non-translated text, just as the fact that other texts are collections of narratives means that optatives and second-person forms are rare.

copulas. We have seen evidence from both Tł̥chq̣ Yatì and Dene that supports this proposal.

Dene Dzage apparently does not share the stage-/individual-level distinction between the copulas, supporting its classification in a different branch of the Athabaskan family from Tł̥chq̣ Yatì and Dene. Its auxiliaries do share a distributional distinction with those of Tł̥chq̣ Yatì and Dene, in that all Dene Dzage auxiliaries that have TAM functions are apparently built upon the *\*-L̥ǰǰ* stem. This fact suggests that the semantically motivated split between the Cordilleran (Dene Dzage) and Mackenzie (Tł̥chq̣ Yatì and Dene) branches occurred subsequently to the development of the auxiliaries but before the disappearance of the distinction between the copulas in Dene Dzage.

## 6.2 Unanswered questions

This thesis has not attempted to analyze the use of the copulas *edzet'ē* and *ts'elīn* in Dene Dzage, except to point out that the stage-/individual-level difference is apparently not a feature of this language. The fact that both copulas are in use suggests that they may differ in some way; exploring this issue is an area for further research.

Another area where further work might be fruitful is an investigation of the occurrences of copulas bearing subject agreement and having verbal elements in their scope. We have treated these constructions as ordinary copulas with nominalized verb complements, and shown evidence supporting this analysis in Tł̥chq̣ Yatì, both from orthography and from one minimal pair. However, it is unclear how far our analysis may hold in Dene or Dene Dzage.

It would also be useful to examine the distributional properties of the reflexes of *\*-L̥ǰǰ* and *\*-T'E'* in other languages of the Athabaskan family. In particular, data from Tahltan, a close relative of Dene Dzage, would help establish whether the differences that we have noticed between Dene Dzage and the other two languages of study are peculiar to Dene Dzage or are characteristics of the Cordilleran branch. Data from Dēne Sųh̥né could provide similar evidence about the Mackenzie branch.

The fact that numerous auxiliaries are derived from the copulas in all three languages, as well as the finding that semantic distinctions between the copulas underlie distinctions between the auxiliaries, raise the question of whether there are other copula-derived elements that have similar histories. For example, in Dene Dzage there is a post-verbal particle *lî* that marks past tense (Moore 2002), but it is not known at the moment whether this particle is derived from the copula *ts'elīn*:<sup>72</sup> if it turns out to be so derived, it would be additional evidence for the finding of this thesis that copulas derived from *\*-L̥ǰǰ* alone gave rise to TAM auxiliaries.

## 6.3 Theoretical implications

This thesis has certain implications for syntactic theory. One of these is that the distinctions between the copulas are evidence against the characterization of copulas as

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<sup>72</sup> It also behaves somewhat differently from the auxiliaries covered in this thesis in that it can occur pre-verbally as well as post-verbally (Moore, 2002:428, ex. (19)).

semantically empty, a characterization that still occurs from time to time in treatments of the subject. If our proposal about the origin of the auxiliaries is correct, it constitutes additional and stronger evidence: a lack of semantic content cannot provide a motivation for a linguistic change.<sup>73</sup>

A more sweeping as well as a more potentially controversial implication is that the stage-/individual-level distinction is intimately related to viewpoint aspect, and can be described by the presence of an amorphous “Presumptive Time” in place of a spatiotemporal locative at the Aspect Phrase node in the structure of a sentence. We have seen some evidence to support this suggestion, but more work on this topic is needed. Indeed, it is attractive as an area for future research precisely because it is easily falsifiable: finding examples of perfective individual-level predicates would refute our analysis.

This can be shown to be true by examining the assertions of Chapter 5 that arise from the unifying of the work of Kratzer and Musan with that of Demirdache and Uribe-Etxebarria. Kratzer’s and Musan’s theories predict (correctly) that changing the tense of an individual-level predicate like *Henry is French* from present to past will produce two possible interpretations: an individual-level interpretation in which Henry is no longer alive, and a stage-level one in which Henry has changed his citizenship. Combining their analysis with the temporal grammar of Demirdache and Uribe-Etxebarria, however, creates another prediction: changing the *aspect*, rather than the tense, of an individual-level predicate should yield an unambiguously stage-level interpretation.

To see why this must be so, consider the temporal structure of *Henry is French*. The sentence is both aspectually imperfective (AST-T WITHIN EV-T) and present tense (UT-T WITHIN AST-T). Changing the tense moves UT-T AFTER AST-T: all that the change means is that at some time in the past, *Henry is French* was true. It gives us no information as to whether that assertion is still true. Changing the aspect to perfective, however, moves AST-T AFTER EV-T: that is, the event of Henry’s being French is seen as completed. Logically, it should only be possible to interpret a perfective version of *Henry was French* in terms of a change of nationality, not Henry’s death.

In English, it is difficult or impossible to put this question to the test, since the markers of tense and aspect in English are often fused. In Athabaskan languages, however, since aspect is marked morphologically and tense syntactically (by adding an optional auxiliary verb) it is possible to disambiguate tense and aspect. Asking native speakers of Dene or Tłı̨chǫ Yatı̨ to judge and translate predicates headed by perfective forms of the individual-level copula could determine whether this prediction of the theory is accurate.

It is clear that the research involved in this thesis has given rise to as many questions as it has answered. The further exploration of Mr. Shandy’s Northwest Passage will require another vessel.

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<sup>73</sup> Except in a negative sense: for example, one might expect a semantically empty copula to be deleted.

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