Lotta Jalava

Borders of (in)finiteness:
Tundra Nenets predication in change

Academic dissertation to be publicly discussed, by due permission of the Faculty of Arts at the University of Helsinki in lecture room 5, Main Building, on the 13th of June, 2015 at 12 o’clock.

Department of Finnish, Finno-Ugrian and Scandinavian Studies
University of Helsinki
2015
Copyright © Lotta Jalava 2015

The articles have been included in the paperback version with permission from their respective publishers.

Front cover designed by Matti Jalava

ISBN 978-951-51-1314-6 (PDF)

Printed by Kopio Niini, Helsinki 2015
Abstract

The dissertation consists of four academic articles and an introductory chapter explaining the objectives, background and results of the study. It concentrates on the variation and change in predicate structures in Tundra Nenets, a Samoyedic (Uralic) language spoken in Siberia. The focus of the study is on the finite and non-finite forms and the concept of finiteness in grammatical change. The study investigates those grammatical categories that show variation in verbal and non-verbal predication or that are results of grammaticalization processes that include changes in non-finite verb forms. The topics of the articles are adjectival words, modal and evidential categories, and the essive-translative constructions in Tundra Nenets.

The data consists of published texts in Tundra Nenets from different periods of time representing different genres, as well as fieldwork material recorded on the Taimyr Peninsula in 2011. The approach is functional–typological, and the methodology combines synchronic linguistic description and diachronic explanation of the grammatical phenomena. The linguistic processes are analysed with relation to language use and context, and their development is explained with relation to the synchronic variation in the language and similar structural and functional paths of change in other languages.

The findings of this study complement earlier research by suggesting mechanisms and paths of change for categories whose origin has been hypothesized in earlier studies. The results suggest that non-finite verb forms often serve as a basis for modal and evidential verb forms in Tundra Nenets, but they can also take part in grammaticalization processes that produce nominal categories, such as the essive-translative suffix. At the same time, the study provides syntactic analyses of lesser studied grammatical categories in Tundra Nenets. It also contributes to the more general discussion on finiteness and infiniteness as well as the division of main word classes in grammatical change.
Acknowledgements

Over the past four years that I have spent preparing this thesis, I have been fortunate enough to receive advice, support, and encouragement from a number of mentors, colleagues, and friends. I would like to thank all those people for sharing their thoughts and time and for contributing in different ways to the work related to this thesis.

First and foremost, I wish to express my sincerest gratitude to my supervisors Janne Saarikivi and Seppo Kittilä for their advice, encouragement, and honest, constructive feedback at different stages of my work. Countless inspiring conversations with Janne on Finno-Ugric languages, speaker communities, and language change have taught me to see my study as part of a larger context. Janne’s example in creativity, his encouragement, and his friendship have supported me enormously, made me believe in the importance of my research topic, and helped me to formulate my ideas. My second supervisor Seppo Kittilä has been an incredibly competent and productive advisor, who has always been willing to comment my texts with intelligence, in detail and on time from the perspective of typology and general linguistics. I am also grateful to Seppo for many cheerful moments in different academic networks and projects that he has been willing to share with me.

During data collection and the first year of my PhD project, Florian Siegl acted as my additional supervisor, helping me enormously with gathering, analysing, and managing the data. Early in the year 2011 when I was starting the PhD project, Florian planned a fieldwork to the Taimyr Peninsula to conduct research on minority languages spoken in the area. As Tundra Nenets is one of those languages, Florian offered me an opportunity to travel and work with him. Alongside his own fieldwork Florian helped me with my research in several different ways. I am extremely grateful to him for teaching me so much and for sharing his experience, thoughts, ideas, and contacts with me during our time working together.

In addition to my supervisors, Riho Grünthal, the team leader at my two most important research networks, the Language Variation and Change sub-programme at Langnet and the Finno-Ugric unit at the department, has supported me throughout my thesis. Before and during my PhD work he has reminded me every now and then that I am on the right way. Thank you for caring, being interested in how and what I am doing and for discussing the topical issues of my study. My first teacher in Nenets languages was Tapani Salminen, whose research-oriented lectures aroused my interest in the grammar of Tundra Nenets already during my first years at the university. I want to thank Tapani for teaching me so much about Samoyedic languages and cultures, for making me see the incredible beauty of the structure of Tundra Nenets, and for encouraging me to choose my own way.

I am very grateful to my preliminary examiner and opponent, Gerson Klumpp, for his truly reassuring feedback, constructive criticism, and detailed suggestions for improving my work in its final stages. I also express my deep gratitude to Andrej Malchukov for his encouraging review and valuable recommendations concerning the thesis and my future research. Additionally, I have received many insightful comments
from Jussi Ylikoski, who has commented the manuscripts of all the four articles included in the thesis at some point and convinced me many times on the importance of my research questions. I want to express my greatest gratitude to Jussi for his supportive feedback and for sharing his expertise. I also want to thank Hilla Halla-aho, Jouko Lindstedt, and Rigina Ajanki for many good ideas concerning my research. The individual articles have also benefited greatly from the constructive comments I have received from the anonymous reviewers and the editors of the respective journals and volumes. In particular, I want to thank Casper de Groot, the editor of the volume *Uralic Essive*, for his instructive advice concerning my argumentation.

The research project would not have been possible without the hospitality and helpfulness of the native speakers of Tundra Nenets, who were willing to share their time, stories, and linguistic intuition with me. I want to express my deepest gratitude to the Nenets people who I have met on the Taimyr Peninsula and in Finland; those who taught me their language, those who told me anecdotes and narratives about their families and local history, those who shared their opinions and their thoughts with me, and those who worked with me on Tundra Nenets grammar and translations. Especially I want to thank Tamara Palčina for regular working sessions and Elena Evaj for helping me with translations and for finding language consultants in Dudinka. Also, I want to thank the Taimyr branch of the Pushkin Leningrad State University for providing the requisite permissions for travelling to Taimyr as well as the two local cultural centres of indigenous people, Таймырский дом надорного творчества and Городской Центр народного творчества г. Дудинка for their hospitality and offering us room and facilities for working. Especially I want to thank Oksana Dobzhanskaya for arranging the necessary invitations and contacts, for sharing her cultural and academic knowledge of the area, and for her warmth and friendship during our fieldwork period.

My work on this study has been made possible by the financial support from the Doctoral Programme Langnet that granted me a PhD student position financed by the Ministry of Education. In addition to the financial support, Langnet has provided me with a warm and inspiring research community where I have had many opportunities for networking with other PhD students, benefiting from the expertise of the supervisors, and learning new perspectives. During the Langnet period in 2011–2014 I worked at the Department of Finnish, Finno-Ugrian and Scandinavian Studies that provided me with all the necessary facilities for the research and most importantly an office at the corridor of Finno-Ugric language studies with the best possible colleagues. After my four-year period in Langnet I have been privileged to be part of Seppo Kittilä’s research team at the University of Helsinki in the project *Interactional, cross-linguistic, theoretical and areal perspectives on evidentiality and egophoricity* funded by the Academy of Finland. In this project, I have had the opportunity to finish my dissertation in the spring semester 2015. My research has also been greatly aided by the travel grants provided by the Finno-Ugric Society for my fieldwork and by Langnet for international conferences.

Over the years, I have greatly benefited from discussions with friends and colleagues on academic careers and different aspects of humanistic research. I want to thank Henrik Tala, Karina Lukin and Leena Huima for their wisdom and wide perspectives on knowledge, research, and human societies. Max Wahlström and Ilona
Rauhala, my dear friends and closest colleagues in the field of linguistics, have prepared their theses at the same time with me, and shared my every moment of enthusiasm, frustration, and joy. Thank you for always listening and letting me think out loud. People with whom I have spent the biggest part of my working days are my office-mates, wonderful fellow-linguists with diverse expertise, to whom I am grateful for their collegial fellowship. Especially I want to thank Ulriikka Puura for keeping me sane during the most critical years of my project. I also want to thank my fellow linguists Santra Jantunen, Pekka Posio, Erika Sandman, and Outi Tânczos for their invaluable friendship during my PhD project. Also my colleagues in Langnet and at the unit of Finno-Ugric studies have made my work much more enjoyable, and because of my fellow linguists I have always enjoyed coming to the office and discussing linguistics. Additionally, I want to thank Svetlana Edygarova and Maxim Fedorov for their help with Russian translations in different stages of my work, as well as my brother Matti Jalava for designing the cover for my thesis.

Moreover, I want to thank my closest friends outside of the academic community for standing by my side and especially for singing with me every now and then. My family has always supported me with my choices in life and encouraged me for curiosity and constant learning of new things. Kiitos mummilleni Ailalle, äidilleni Tiinalle ja kummitäidilleni Lekolle tuesta ja turvaverkosta, kiitos rohkaisusta uteliaisuuteen ja itse tekemiseen. Last but not least, my fiancé Ilmari has supported me enormously by believing in my academic work and being proud of me. Kiitos ymmärryksestä ja rakkaudesta.

Helsinki 23.5.2015

Lotta Jalava
Contents

Abstract .............................................................................................................................. i
Acknowledgements ........................................................................................................ ii

1. Introduction .................................................................................................................. 1
   1.1 Background and motivation of the study ................................................................. 2
   1.2 Objectives and scope of the study ........................................................................... 6
   1.3 Tundra Nenets language ......................................................................................... 9

2. Data and methodology .................................................................................................. 13
   2.1 Collection and representation of the data ............................................................... 13
   2.2 Methodological approach ....................................................................................... 16
   2.3 Research process .................................................................................................... 18

3. Theoretical background ............................................................................................... 20
   3.1 Finiteness and non-finiteness ............................................................................... 20
   3.2 Verbal and non-verbal predication in Tundra Nenets ........................................... 23
   3.3 Grammatical change ............................................................................................. 26

4. Summary and central results of the articles ............................................................... 29
   Article 1 ....................................................................................................................... 29
   Article 2 ....................................................................................................................... 30
   Article 3 ....................................................................................................................... 31
   Article 4 ....................................................................................................................... 32

5. Discussion on the main results .................................................................................... 33
   5.1 The interface of verbal and non-verbal predication .............................................. 33
   5.2 The mechanisms of change ................................................................................... 37
   5.3 (In)finiteness of the non-finites in grammatical change ...................................... 41

6. Conclusion .................................................................................................................... 46

Abbreviations ................................................................................................................... 48
References ......................................................................................................................... 49
Abstract in Finnish ........................................................................................................... 58
Abstract in Russian ......................................................................................................... 59
1. Introduction

This dissertation consists of four independent academic articles and an introductory part. The study investigates variation and change in predicate structures in Tundra Nenets, a Samoyedic (Uralic) language spoken in Northern Russia and Siberia. The focus is on the distribution and overlapping of two different predication strategies, non-verbal and verbal predication in grammatical change. It investigates also categorization of linguistic units and the emergence of new grammatical categories, especially modal and evidential suffixes, on the basis of non-finite verb forms. Different aspects of these topics are investigated in the individual articles. The introductory part discusses the background of the study, summarizes the results and draws conclusion of the findings.

The original peer-reviewed articles included in the study are the following:


The goal of the study is to provide new information on different aspects of verbal and non-verbal predication, finiteness and non-finiteness as well as grammatical changes in Tundra Nenets. Analysing the data from Tundra Nenets the study tests and defines theoretical hypotheses and generalizations on predication, finiteness, and boundaries of categories and grammatical change made in works of theoretical and typological linguistics (Stassen 1997; Givón 1990: 852–891; Cristofaro 2007; Dixon 2004; Evans 2007) as well as in Finno-Ugric studies and the description of Tundra Nenets (Janhunen 1998; Tereščenko 1973; Salminen 1993; 1997). While the articles each have their individual goals and specific research questions they investigate, the introductory part discusses issues that are common to all of the articles. It sheds light on the theoretical
foundation shared by the individual studies and discusses the results of the articles in a wider context.

The introductory part is organized as follows: Sections 1.1–1.5 present the context of the study: background and motivation of the study are introduced in 1.1, aims and research questions in 1.2, and Tundra Nenets language in 1.3. Section 2 is dedicated to data and methods, and Section 3 explains the theoretical foundation and the central concepts employed. The results of the study are discussed in Sections 4 and 5. Section 4 gives summaries of the articles and their main results, and Section 5 combines the results and discusses them with relation to the research questions set for the whole dissertation. Finally, Section 6 draws the final conclusions of the study.

1.1 Background and motivation of the study

The initial motivation for the articles and the whole study derives from previous research concerning the structure, and development of Uralic languages. The main topics that rise from the previous research are the division and development of the main word classes in the Uralic language, and, the relationship of finite and non-finite categories, especially the development of finite categories on the basis of non-finite verb forms. The current study attempts to bridge the gap between these two issues discussed in Finno-Ugric language studies. These questions are relevant not only in Finno-Ugric language studies, but also more generally in theoretical and typological linguistics, and this study also utilizes the generalizations made in the typological framework of linguistics (see Section 2). Nevertheless, the works that have most inspired my study focus on the structure and development of Uralic languages.

In Finno-Ugric studies, the discussion on the interface between finite and infinite categories has generally been connected to the question of word classes. It has been traditionally assumed that in Proto-Uralica and other early stages of language development, verbs and nouns were undifferentiated (nomenverbum). According to this assumption, the distinction between the two word classes developed relatively late. This is especially clearly manifested in the works of the older generation (Hakulinen 1941, 63–65; Ravila 1953: 45; Itkonen 1966: 227–228; Korhonen 1996 [1980]; Raun 1988: 556), for example:

Se, että molemmat sanaluokat [verbit ja nomit uralilaisissa kielissä] kuuluvat lähiseisti yhteen ja että molempien alkuperä on sama, on nähdäkseni selvä, mutta toinen asia on, miten tämä kaikki on ymmärrettävissä.

[The fact that the two word classes [verbs and nouns in Uralic] have a tight connection and that they share a common origin seems clear to me, but another issue is how all this can be explained.] (Ravila 1953: 45.)
The evidence for the conclusion regarding undifferentiated word classes was drawn from the similarities between many verbal and nominal lexical stems and their inflection in modern Finno-Ugric languages. According to the nomenverbum assumption the undifferentiated lexical items in many Uralic languages may act either as nouns or verbs (e.g. *tuule- ‘wind’, ‘to blow’, *sula- ‘molten’, ‘to melt’). Additionally, in many Finno-Ugric languages, similar inflectional and derivational suffixes are also used for both noun and verbs, such as the person agreement suffixes of possession and verbal inflection, both suggested to have developed from agglutinated personal pronouns before the Proto-Uralic period (Korhonen 1996 [1980]: 191). Furthermore, many Uralic languages display numerous non-finite verb forms, as well as some non-prototypical uses of lexical items in some Uralic languages, most importantly the predication strategy of nouns, that is often referred to as nominal conjugation. For example, in Tundra Nenets, in affirmative clauses, nouns acting as the predicate of a clause can take verbal suffixes and agree in person and number with the subject without using a copula, in a similar manner as verbs:

Tundra Nenets (NenTay2011_TMP)

(1) *tūrŋa-dm?
  come-1SG  ‘I come’

(2) *waesako-dm?
  old.man-1SG  ‘I am an old man’

Considering contemporary Uralic languages, nominal conjugation is not limited to Nenets and other Samoyedic languages, but it also occurs in the Mordvinic languages, although the details of this type of predication differ in many ways (Turunen 2010). Because of the nominal conjugation, the distinction of the word classes in these languages used to be considered less clear than in other modern Uralic languages (Collinder 1957: 438).

The most important borderline between finite and non-finite verbal predicates in Tundra Nenets is manifested in verbal and non-verbal predication strategies (see examples 1 and 2 in Section 1.1). The main rules of these two different predication strategies have been described in detail in previous studies regarding for example the division of word classes in Nenets (Salminen 1993) and other Samoyedic languages (Tereščenko 1968), and the typology of negation in the Samoyedic languages (Wagner-Nagy 2011). In the current study, the predication strategies will be introduced briefly in Section 2.3 of the introduction, and the topic will later be investigated in the individual articles.

Today it is generally accepted that in individual Uralic languages the division between nouns and verbs can be made on the basis of morphological and syntactic criteria (for Nenets see Salminen 1993; Section 2.3), and it has also been argued that this was the case in Proto-Uralic as well (Bartens 1981: 101; Janhunen 1982: 28; Laakso 1997; Pajunen 1998). In Finno-Ugric studies as well as in general linguistics, the most important criteria for identifying different word classes today are the syntactic distribution of lexical items and the possible syntactic positions they can occur in. These criteria have supplemented and partly replaced the previous criteria that were
mainly based on the morphology and meaning of the lexical items (Trask 1999: 280–821).

It has been suggested that all languages make a distinction between nouns and verbs by using language-specific criteria (Croft 2001; Dixon 2010: 37–38; Schachter & Shopen 2007: 13). However, there are languages in which the traditional noun-verb distinction is not that clear, and in which the words and word classes are more flexible than in some other languages (Sasse 1993: 196–201), i.e. “languages with a word class whose members cover functions that are typically associated with two or more of the traditional word classes (verb, noun, and adjective)”, as defined by van Lier & Rijkhoff (2013: 1). For example, in Turkish, some “non-verbs” such as **güzel** ‘beauty’, ‘beautiful’, ‘beautifully’ may act as head of either as referential phrase (prototypical noun), modifier of head of referential phrase (prototypical adjective) or as modifier of the predicate phrase (adverb of manner) (Göksel and Kerslake 2005: 49).

In other some other languages, flexible lexemes may occur in the intersection of the traditional word classes, nouns and verbs. Candidates for languages with flexible word classes have been suggested from several language-families, for example Iroquoian languages spoken in North America (Sasse 1988, 1993), Polynesian languages (Broschart 1997), Austronesian languages (Gil 1994), and aboriginal languages of the Australian continent (McGregor 2013; van Lier & Rijkhoff 2013: 6–8). Many Uralic languages, too, have features in their word classes that could be characterized as flexible, and this in particular, might have also been the case in Proto-Uralic.

According to the current view, the similarities between nouns and verbs and their inflectional suffixes in the Uralic languages can be explained on the basis of synchronic rules and diachronic grammatical changes. For example, despite the conjugation of Tundra Nenets nouns, there is a clear difference between verbs and nouns in the language and the predication strategies of nouns and verbs differ from each other in many syntactic contexts (see Section 2.3). Moreover, the ambiguity of the lexical roots has been explained by reconstructing generic verbalizing and nominalizing suffixes in Proto-Uralic (Laakso 1997). Additionally, the similarities between inflectional suffixes can be explained by investigating the history of the categories and constructions they appear in. For example, even though we find similarities in non-finite and finite verbal suffixes, such as participles and modal and evidential suffixes in Samoyedic languages, we can assume that the finite suffixes have developed from nominal or non-finite forms – instead of presuming that the inflected nouns and verbs were undifferentiated. This leads us to the second quotation illustrating the inspiration I have found for my work from the previous research. Among others, Janhunen (1982: 33) suggests that many categories of verbal inflection in Uralic languages have developed from verbal nouns:

> Verbal nouns, formed by deverbal nominalizing suffixes were both numerous and frequently used in [protoUralic]. In many cases they have served as a basis for the finite conjugation. (Janhunen 1982: 33.)

Janhunen uses the term “verbal noun” for different kinds of deverbal forms reconstructed in Proto Uralic denoting actor, action place of action, etc. Examples of
this development can be found, for example, in Finnic and Mordvinic languages, where the 3rd person verbal suffixes have developed from participles (Bartens 1999: 123). However, the most important examples in the perspective of the current study derive from Tundra Nenets.

Considering that modality is a notion characteristically associated with finiteness, it is conspicuous that in many Samoyedic languages, especially in Tundra Nenets, a large number of modal and evidential suffixes, traditionally referred to as mood, contain participial elements, although cross-linguistically this is not uncommon. The current view of the category of modal and evidential suffixes in Tundra Nenets (Salminen 1997, 1998) includes as many as sixteen morphologically complex suffixes that consist of participial elements. Compared to most Uralic languages, the number of modal and evidential suffixes in Tundra Nenets is large.

According to the present count there are sixteen moods [in Tundra Nenets]. -- Many moods have complex markers consisting of participial and derivational suffixes --. (Salminen 1998: 530–531.)

It can be assumed that those modal and evidential markers that consist of participial suffixes not only have a synchronic but also a diachronic connection with the homonymous participle suffixes. Thus, the main hypothesis tested in the current study is that in Uralic, especially Samoyedic languages many suffixes of finite verbal categories have developed from non-finite verb forms, especially from participles. Janhunen (1998: 471) suggests that in Samoyedic languages, there is a connection between the nominal conjugation of verbal nouns and temporal and modal inflection:

Origin of various sub-paradigms of Samoyedic such as temporal and modal inflection lies in the predicative conjugation of verbal nouns, that is, in nonverbal predication. (Janhunen 1998: 471).

There are many relatively transparent candidates for this development, such as the topic of the current study, the modal and evidential suffixes in Tundra Nenets. Consider example 3 for the past participle and 4 for the narrative mood below:

\[
\text{wīŋ-kəd} \quad \text{to-wī} \quad \text{ŋəčekī} \\
\text{tundra-ABL} \quad \text{come-PTCP.PST} \quad \text{child} \\
\text{‘the child who has come from the tundra’ (T65: 846)}
\]

\[
\text{xasawa} \quad \text{ŋəčekī} \quad \text{to-wī}^1 \\
\text{man} \quad \text{child} \quad \text{come-NARR} \\
\text{‘the boy has (apparently) come’ (JamLa: 72)}
\]

Even though differentiated word classes for nouns and verbs probably existed in Proto-Uralic in the same way as in contemporary Uralic languages, there are still notable

---

1 The original form is \textit{tu-wī} which is used in the eastern Taimyrian variety of Tundra Nenets.
similarities between inflectional verbal and nominal and finite and non-finite suffixes, such as the appearance of participial suffixes in finite inflection in Tundra Nenets, many other Samoyedic languages as well as in Finnic and Mordvinic (Janhunen 1998: 471; Bartens 1999: 123). Yet, the actual processes, mechanisms, semantic and syntactic changes and restrictions behind this grammatical change have not been analysed extensively. Another example is the similarity of the possessive suffixes and verbal agreement suffixes in all Uralic languages (Korhonen 1996 [1980]: 191). Additionally, in Tundra Nenets the semantic category of adjectives consisting of noun-like adjectives and stative verbs, and, the nominal conjugation or non-verbal predication are examples of non-prototypical uses of lexical items in the perspective of most Uralic languages. These phenomena require fine-grained analyses also from the diachronic perspective.

1.2 Objectives and scope of the study

This dissertation elaborates the relationship between verbal and nominal features, the variation within categories and construction on the border of finiteness and non-finiteness as well as the grammaticalization processes of non-finite verb forms. Analysing predicate structures in Tundra Nenets based on the hypothesis that non-finite forms develop into finite suffixes (Janhunen 1982: 33), the study seeks answers to Ravila’s (1953: 45) question cited above on how the apparent similarity of nominal and verbal forms in Uralic languages can be explained. As the focus is on synchronic categorization and diachronic development over the boundaries of the categories, a crucial phenomenon to investigate is non-verbal predication, or, nominal conjugation.

The aim of this dissertation is to shed new light on finiteness and non-finiteness in Tundra Nenets predicates and on the identification of structures that have developed from and across non-verbal predicate strategies and non-finite verb forms. A further goal is to take the first step towards a better understanding of the relationship between complex finite categories and non-verbal predication and the mechanisms behind the emergence of categories such as tense-modal-evidentiality in Tundra Nenets. In Tundra Nenets, as in many Turkic and Mongolian languages and some of the Uralic and Tungusic languages (Comrie 1981: 76), participial forms can be used as non-verbal predicates without a copula, inflected like verbs. For this reason they are good candidates to become used as finite forms over time. Analysis of verbal and non-verbal predicates, the former concerning finite verbs and the latter concerning nouns and non-finite verb forms, is crucial in the discussion of the relationship of verbs and noun in Uralic languages. From these starting points, on the basis of data deriving from Tundra Nenets, this study seeks explanations to the similarity of finite and non-finite categories.

The focus is on variation and change of the non-verbal and verbal predicate structures where the gradualness and border of finiteness is encountered. From the synchronic viewpoint, the study examines those clause types and expressions where both non-verbal and verbal predicates are used synchronically. From the diachronic
perspective, the aim is to investigate those grammaticalization processes where changes in grammatical categories cross the border of verbal and non-verbal predication or change their position in the gradual scale of finiteness.

The main research questions for the whole dissertation addressed to the data from Tundra Nenets are formulated as follows:

1. Which categories show the interface between verbal and non-verbal predication?
   - In which predicational categories would the reanalysis of non-finite forms into finite verbal categories take place?

2. How and why do non-finite verb forms develop into new (finite) categories?
   - What are the mechanisms (and restrictions) behind the grammaticalization processes of the non-finite forms?

3. Which grammatical categories develop from non-finite verb forms?
   - What kind of patterns do different non-finites follow in their change?

The first question sheds light on the interface of verbal and non-verbal predication from synchronic perspective. This question is analysed in Article 1 that deals with the categorization of adjectives in Tundra Nenets. Additionally, the variation in modal inflection that is discussed in Articles 2 and 3 also shows ample variation in the use of the two predicate types. The second question concerning the mechanisms of grammatical change is discussed especially in the Articles 2 and 3, but also in Article 4. In addition to explaining the paths of grammatical change, Article 3 attempts to etymologize some of the suffixes under investigation. The third question is addressed in all articles, but it is the most directly answered by the results of Articles 2 and 3 on grammaticalization of modal and evidential suffixes and the Article 4 on the essive-translative. The distribution of the main research questions discussed in the four articles is illustrated in Figure 1 below.

![Figure 1: Research question discussed in the articles](image-url)
Even though the field of Finno-Ugric studies has strong traditions in historical linguistics, the diachronic research has concentrated mainly on historical comparative studies the origin of individual lexical and grammatical items. Studies concentrating on historical syntax and description and explanation of diachronic grammatical processes are still lacking for most languages and language groups, including Tundra Nenets. This is a gap that the current study aims at filling for its part. In addition to providing concrete examples on how finite categories, especially modal and evidential markers emerge from non-finite forms, the study explores the character of finiteness in Tundra Nenets and its relations to the distinction of word classes and predicate types.

Furthermore, the study seeks answers to the question which non-finite forms may develop into finite suffixes and through what kind of processes, and which of the non-finites develop into other than finite verbal categories and why. Firstly, non-verbal predication of participles plays an important role in the development of many modal markers, as suggested in previous research (Janhunen 1982: 33, 1998: 471). Secondly, it has been suggested that origin of the tense and modal markers based on participles and verbal nouns is in non-verbal predication. Evidence from Mordvinic languages also suggests that complexity of verbal categories and predication strategies is related to the nominal conjugation (Hamari 2007; Turunen 2010). Thirdly, in order to study the mechanisms of change, we need to identify those categories and constructions where both types of predication, verbal and non-verbal may occur, or, where the functions of non-verbal and verbal predicates are similar. This is why the focus of the whole study lies on predication of stative relations such as adjectives, participles as verbal adjectives and expressions of impermanent state, and in modal expressions. For Tundra Nenets, encoding of modality is particularly interesting because of the large number of modal and evidential suffixes in the language.

In the field of general linguistics, the current research can be seen as a case study, and it aims at testing theories and generalization such as the principles of categorization, the nature of finiteness, as well as the patterns of language change with a special emphasis on emergence of new predication categories. In this way the study contributes to the previous research on the character of finiteness and non-finiteness, the stability of these features, as well as the direction of development in grammatical change (Givón 1990: 852–891; Cristofaro 2007; Tabor, & Traugott 1998; Janhunen 1998: 471; Hopper & Traugott 2003; Traugott & Dasher 2002). Combining the research tradition of Finno-Ugric studies with the framework of functional linguistics, the study brings the evidence from Tundra Nenets to more general discussion on these topics. Furthermore, bringing the dynamic approach and diachronic perspective into the research of finiteness, an approach that is not entirely new in linguistics but lesser applied, the study aims at producing new information about the potential and restrictions of non-finite verb forms in grammatical change.

Finally, in addition to what is included in this study, I find it important to comment on what is not included in the dissertation but most probably would be relevant for the topic. In Section 1.1 the similarity of the possessive suffixes and verbal personal agreement suffixes in the Uralic languages was mentioned briefly. A general assumption in Finno-Ugric language studies is that these suffixes have a common
origin. In this respect, the relationship of possessive suffixes and objective conjugation from a diachronic perspective would be a relevant topic when exploring the development of finite verbal categories in relation to the nominal ones. Other questions relevant for the predication in Tundra Nenets would be tense and aspect marking, especially the emergence of the so-called finite stem used in verbs and the preterite (past tense) suffix that, exceptionally in context of the Uralic languages, does not precede but follows the personal suffixes in some of the Samoyedic languages. Moreover, the current study suggests a grammaticalization path for most but not for all of the modal suffixes in Tundra Nenets. When investigating predication and especially finiteness, the modal markers as a whole category would be a relevant subject for the research.

The outline of the study, however, with the focus on the interface of finite categories and non-finite verb forms, includes only those grammatical categories that evidently originate from non-finite verb form, and, whose development can be investigated concentrating on variation in Tundra Nenets constructions, without a strong historical-comparative approach. For this reason grammatical categories such as tense, aspect and objective conjugation, as well as some of the mood suffixes have not been investigated in this study.

1.3 Tundra Nenets language

Tundra Nenets belongs to the Samoyedic branch of the Uralic language family, together with Forest Nenets, Forest and Tundra Enets, Nganasan and Selkup. In the beginning of the 21st century, these are still living languages, whereas Kamass and Mator are two extinct Samoyedic languages. Tundra Nenets is spoken by approximately 20,000–25,000 people in a vast area in northern Russia that extends from Arkhangelsk Oblast to the Taimyr Peninsula. According to the Russian census of 2010 (PEREPIS 2010), 21,900 people reported that they knew the Nenets language, while the number of ethnic Nenets was 44,640. Despite the relatively large number of speakers in comparison to other Samoyedic languages, Tundra Nenets is considered endangered. The intergenerational transmission of the language has interrupted in many areas, and the maintenance of the language depends on the stability of reindeer herding, at least to some extent. All speakers of the younger generations are at least bilingual in Nenets and Russian that is learned at school if not earlier. Especially in urban areas and other bigger centres Russian is often preferred as everyday language among the Nenets.

Among the Samoyedic languages, Tundra Nenets is not only the most widely spoken but also the best documented one. A large amount of material was collected during the nineteenth and twentieth centuries (Castrén [1845]; Castrén 1940; Lehtisalo 1947, 1960; Kupriyanova 1965). The first grammar (Castrén 1854) appeared in 1854, and during the last century, a few grammatical sketches and descriptions mainly concentrating on morphology were published. Among them are the works by Tereščenko (1947, 1956, 1965), the Nenets chrestomathy by Hajdú (1968), and a
school grammar by Kupriyanova, Barmič and Khomič (1985). More recently, a grammatical sketch in Russian was published by Burkova (2010), and a comprehensive descriptive grammar in English by Nikolaeva (2014). Moreover, among smaller ones, two large dictionaries were compiled and published by Lehtisalo (1956) and Tereščenko (1965). Detailed phonological and morphological analyses can be found in the works of Janhunen (1986) and Salminen (1997, 1998), and a general description of Nenets syntax can be found in Tereščenko (1973). Furthermore, a number of scholarly works have been published on several topics covering various grammatical phenomena of the language, among which the most relevant for this study are the papers by Labanauskas (1974, 1981, 1982, 1992a, 1992b) on the form and function of different modal and evidential suffixes. Given the wide array of aspects included in the research of Tundra Nenets, the available literature represents relatively well many basic areas of linguistic research. Yet, research focusing on grammaticalization and explaining the diachronic processes in grammatical change in Nenets has not been done much. Instead, the historical research has concentrated on individual observations concerning the origin of individual affixes, as well as on reconstruction of the basic grammar in Proto-Samoyedic (Mikola 1988; Janhunen 1998).

In addition to the linguistic documentation and descriptions of the language, different kinds of literary texts have been published in Tundra Nenets by the speaker community since the 1930’s. These include for example novels and poetry written by authors such as Anton Pyrerka, Ivan Istomin, Leonid Lapcuj and Ljubov Nenjang among the most well-known ones, as well as Nenets folklore texts, school books and other study materials. There are also newspapers that publish materials in Tundra Nenets on average once a week, currently two newspapers in the Yamalo-Nenets Autonomous Okrug (Няръяна церм in Salekhard and Советское Заполярье in Tazovsky district), two in Naryan-Mar in the Nenets Autonomous Okrug (Няръяна вындер and Едэй Вада), and one in Dudinka in the Taimyr Dolgano-Nenetsky District (Та́ймыр). A fairly comprehensive bibliography on publications on Nenets including linguistic research, published folklore texts, and educational materials is listed in Burkova (2010: 199–221).

The grammatical sketch of Tundra Nenets presented here follows the previous descriptions, especially Tereščenko (1947, 1973), Salminen (1997) and Nikolaeva (2014). Typologically, Tundra Nenets is an agglutinating language, and it uses mainly suffixes and postpositions to mark grammatical relations. The basic word order is Subject–Object–Verb, and, given that it is typical in this language type, a modifier precedes its head in a noun phrase (Dryer 1992). Both verbs and nouns can agree with the subject in the predicate position, using the verbal suffixes of subjective conjugation that is the basic intransitive conjugation type of verbs. The structure and the morpheme order of both verbal and nominal predicate is illustrated in Table 1, and the nominal and verbal predicates will be discussed in more detail in Section 2.3.
Table 1: Morpheme order of a verbal and nominal predicate in Tundra Nenets

The most important borderline between finite and non-finite verbal predicates in Tundra Nenets is manifested in verbal and non-verbal predication strategies (see examples 1 and 2 in Section 1.1). The main rules of these two different predication strategies have been described in detail in previous studies regarding for example the division of word classes in Nenets (Salminen 1993) and the typology of negation in the Samoyedic languages (Wagner-Nagy 2011). In the current study, the predication strategies will be introduced briefly in Section 2.3 of the introduction, and the topic will later be investigated in the individual articles.

In both verbal and nominal predicates, subject agreement is the only obligatory category marked in the predicate. In verbal predicates, however, a special marker of the finite stem occurs in the indicative and optative moods in the subjective, reflexive and the objective conjugation when the object is in singular or dual (Salminen 1997: 99–100). The derivational suffixes of the Aktionsart and future tense as well as the inflectional category of modality and evidentiality are available for verbal predicates but not for the nominal (non-verbal) ones. The non-verbal predicates use copula in order to mark these categories. For verbs, there are three conjugation types: subjective, objective and reflexive, and accordingly, three different sets of personal suffixes are used for different types of conjugation. In subjective conjugation, the verb agrees only with the subject, and in objective conjugation it agrees with the person of the subject and the number of the object using the personal suffixes identical with the possessive suffixes. There are three tenses: in addition to the unmarked present/immediate past tense (traditionally referred to as aorist), future and past tense can be expressed with suffixes. The future suffix functions as a derivational suffix and precedes the modal and personal suffixes in a verbal predicate, while the past tense suffix (the preterite) takes the last position of the word following the personal suffixes. Example (3) illustrates a verbal predicate with marking of evidentiality and objective conjugation with the object in singular:

(3)  xameda-rxawe-da
understand-SIMEV.PST-3SG>SG
‘S/he seems to have understood this’ (Labanauskas 1982: 289)
As for nouns, they can be conjugated only in affirmative indicative clauses, whereas in negative clauses, a copula verb is again used. The marking of the past tense is possible also in the nominal predicate without using a copula:

(4) \textit{xañena-dm-ć}

\begin{tabular}{ll}
\textit{hunter-1SG-PRET} & \\
\end{tabular}

‘I was a hunter’ (NenTay2011)

In addition to the complex conjugation system, the versatile verbal morphology and abundance of inflectional categories are characteristic of modal and evidential expressions as well. Suffixes that express modality and non-firsthand evidentiality are traditionally referred to as \textit{mood}. Depending on the definition of the category, there are 10 to 16 optional modal/evidential affixes which are mutually exclusive (Salminen 1997: 98, Jalava 2012). Furthermore, several types of non-finite verb forms are used in different functions. The non-finite forms include categories such as participles, converbs (in Samoyedology referred to as gerunds) and verbal noun suffixes (traditionally referred to as infinitives). Negation plays an important role in distinguishing the predication strategies and also the main word classes in Tundra Nenets (see Section 2.2 in more detail).
2. Data and methodology

This section describes the methodological principles and practices of the study. First, Section 2.1 introduces the research material and representation of the data. The applied methodological approach is explained in Section 2.2, and finally, Section 2.3 describes the research process.

2.1 Collection and representation of the data

The data includes selected texts and recording of spoken language. The published materials include different genres of texts from different periods of time. There are three collections of Tundra Nenets texts and sample sentences that I have gone through systematically searching and analysing all examples of the studied grammatical structure in their context. These texts include a collection of historical narratives (JamLa = Labanauskas 2000), newspaper articles in Tundra Nenets (NW = Няръяна вындер), and a corpus of sample sentences (T65 = Tereščenko 1965). The collection of historical narratives (JamLa) consists mainly of materials recorded in 1973–1993 by Kazys Labanauskas, but it also includes narratives collected in 1911–1914 by Toivo Lehtisalo (1947). The contemporary literary language that educated native speakers use is represented in newspaper articles. I have used the articles from the years 2005–2012 published column in the Ялумд” (‘The dawn’) that appears in Няръяна вындер (NW) (‘The red dweller of the tundra’), the local newspaper of the Nenets Autonomous Okrug. The newspaper texts are often published parallel with a Russian version, and some of them are translations from the Russian original. The sample sentence corpus (T65) consists of approximately 10,000 example sentences of Tundra Nenets in N. M. Tereščenko’s large Nenets-Russian dictionary. In addition to the texts and clause examples, I have systematically gone through one part of the first notes of Tundra Nenets put on record by M.A. Castrén (1845) in the 1840’s. The selected volume of the manuscripts, Jurak-Samoyedica 5, includes approximately 180 pages of Castrén’s notes on Tundra Nenets predicates, including modal and evidential inflection.

The spoken data (NenTay2011) consist of my fieldwork materials from the Taimyr Peninsula. The fieldwork was conducted together with Florian Siegl from 3rd August to 6th October 2011 in Dudinka. The material collected in Dudinka consists of 30 short spontaneous anecdotes, autobiographies and narratives on topics such as, local history, traditions, and topical issues, as well as several hours of elicited materials on the basis of translations and staged communicative events. I recorded materials from 14 language consultants representing different age groups, all of them were women. No specific criteria were used when choosing the consultants, and they were found from the networks of the Nenets people working in the cultural centres in Dudinka. The only requirement was that the consultants would be fluent speakers of Tundra Nenets. Otherwise, I worked with anyone who had time and will. Majority of the recording was
done in the local cultural centre of indigenous people Таймырский дом надорного творчество that offered us a place to work. In addition to the language consultants, two native speakers of Tundra Nenets have assisted me with translating the recorded narratives, one with whom I worked in Dudinka several times and one with whom I had an opportunity to work in Helsinki after my fieldwork. The spoken data will be deposited in The Language Bank of Finland.

The different types of data used in the study, including information of the amount and time period are illustrated in Table 2 below.

<table>
<thead>
<tr>
<th>Data</th>
<th>Genre and type</th>
<th>Contents</th>
<th>Produced</th>
</tr>
</thead>
<tbody>
<tr>
<td>NenTay2011</td>
<td>Personal narratives Elicited data</td>
<td>2 h 27 min 38 sessions</td>
<td>3.8. 2011–6.10.2011</td>
</tr>
<tr>
<td>NW</td>
<td>Newspaper articles</td>
<td>272 pages ~ 40,000 sentences</td>
<td>2005–2012</td>
</tr>
<tr>
<td>JamLa</td>
<td>Folklore narratives</td>
<td>124 pages 7,960 sentences</td>
<td>1911–1914; 1973–1993</td>
</tr>
<tr>
<td>T65</td>
<td>Sample sentences of the dictionary</td>
<td>9,993 sentences</td>
<td>1965</td>
</tr>
<tr>
<td>MC</td>
<td>Castrén’s manuscripts (Jurak-Samoyedica 5)</td>
<td>180 pages</td>
<td>1846</td>
</tr>
</tbody>
</table>

Table 2: Data used in the study

It has to be emphasized that study does not aim at providing any quantitative analyses. Even though I have gone through the data systematically, and I have got an impression on the frequencies of different constructions and on what is typical in the language, the aims of the research are qualitative. However, if not specified otherwise, the grammatical phenomena described are found in all genres, time periods and areal varieties of the data relatively frequently, and I have not paid attention to any sporadic examples. The different materials represent also different areal and dialectal varieties of Tundra Nenets, as the fieldwork recordings and the narratives collected by Labanauskas (2000) represent the easternmost Taimyrian variety, and the newspaper texts are from the western variety. The central dialects of the Jamal Peninsula, are represented in Lehtisalo’s (1947) and Tereščenko’s (1965) materials as well as in the standard language that is based on this variety.

In addition to the systematically collated data, I have consulted other text collections and descriptions of Tundra Nenets and its grammatical phenomena (most importantly Prokofjev 1936; Tereščenko 1947; 1973; Lehtisalo 1947; Almazova 1961; Hajdú 1968; Salminen 1997, 1998). These are also the works that my basic understanding of the grammar of Tundra Nenets language is built on. In addition to the representativeness of the data itself, the examples in the articles and in the introductory part are selected to illustrate the most typical expressions of the form or function investigated found in the data. Analysing the Tundra Nenets materials, I have counted also on the intuition of native speakers, who have helped me interpreting not only the fieldwork recordings, but also many of the newspaper texts and the examples from
Tereščenko (1965). In case of the published materials I have also consulted the Russian and German translations of the texts to make sure that the morphological, syntactic and semantic analysis corresponds to the meaning intended by the clauses and constructions in certain context. The glossing of the examples follows the guidelines of The Leipzig Glossing Rules (Comrie & al 2004).

The names for the descriptive grammatical categories used in the study derive from typological literature as well as from the Samoyedistic and Finno-Ugric traditions. Whenever there is a typological comparative concept (Haspelmath 2010) available used for a function similar to of a given category in Tundra Nenets, this name of the category is used. For example, following the definition based on typological data (Haspelmath 1995: 4; 1999: 110–111), I use the term *converb* for Tundra Nenets categories that mark adverbial meanings in subordination, instead of the term *gerund*, that is used in earlier descriptions of Tundra Nenets for converbs, but in research of other languages, also for many other categories. When there is no cross-linguistically defined comparative concept for a function similar to a language-specific category, and, when many different terms are used for language-specific categories with similar functions in different languages, I choose a term used in the earlier studies of Tundra Nenets for the same category. For example, I follow mainly Hajdú (1968) and Salminen (1997) in naming of the modal and evidential categories traditionally referred to as moods, such as the auditive (non-visual first-hand evidential) and the probabilitatives (inferential). However, in some cases I use different terms, for example, for one group of the evidentials, earlier labelled as the probabilitatives (Hajdú 1968) or the approximative (Salmien 1997). I have chosen the term *similative-evidential* according to a category in Even, with similar function and similar origin described by Malchukov (2000).

The representation of the clause examples is roughly based on transliteration of the Nenets orthography (as in Tereščenko 1965). However, as the orthography used in the original literate data is not consistent, some modifications have been made in order to present the most essential morphological oppositions, and the transcription has developed during the research process. In these modifications, I apply the principles of the phonological transcription by Salminen (1997). As Salminen’s transcription is based on his careful analysis of the phonemic deep structure in Tundra Nenets, it differs from the orthography in many places, and some researchers, myself including, have found it impractical to use and have decided on using different convention (see also Siegl 2013: 33). As my aim is not to show the deep phonemic form of the words, the transcription used here differs from the phonological transcription by Salminen (1997), for example *jībetarxa* (my transcription) vs. *yībyetar°xa* (Salminen’s transcription), ‘s/he seems to be smart’, the example from Tereščenko (1965: 133). I use mainly the characters of the Finno-Ugric transcription (FUT) (Uralic Phonetic Alphabet (UPA)), for example the palatal consonants are marked here with an apostrophe, (e.g. ś), which I find more elegant for writing Finno-Ugric languages with many palatal consonants than the superscript j (e.g. s/j) used in the International Phonetic Alphabet IPA, or, using two characters as in Salminen’s transcription (e.g. sy). However, some characters have been borrowed from IPA, namely the character for
the glottal stop [ʔ], marked as [q] in Salminen 1997, and for the schwa [ə], marked as [ø] in Salminen’s transcription. The character [ʔ] is used for marking the glottal stop in Samoyedic languages also in recent works by Wagner-Nagy 2011 and Siegl 2013, who also mark palatal consonants with an apostrophe. Following Salminen’s phonological analysis, I have used a different letter [h] for the so-called nasalizing glottal stop, as its opposition to the non-nasalizing glottal stop [ʔ] is argued to be phonological (Salminen 1997: 37). This opposition is not always represented in different transcription systems or in the orthography.

Furthermore, the special schwa phoneme /ø/ is not marked here. However, in grammatical suffixes I use a long vowel (e.g. -wī) according to the realization, when Salminen uses the combination of a full vowel and the schwa (e.g. -wiø). Long vowels marked in the first syllables mark the quantity according to the phonology. Moreover, according to the orthography in marking consonant stems and the absence of the schwa in the final position, I mark the letter of the glottal stop after the second final consonant letter, e.g. šertadmʔ (сертадм”) ‘I make’ vs. syertaød°m (according to Salminen 1997).

2.2 Methodological approach

The methods of the current study are description of synchronic structures and explanation of diachronic processes. Even though the data is empirical, the research questions are theoretical, and they rise from earlier generalisations, research traditions, trends and concepts in linguistic research that form the theoretical basis for my study. At the same time the earlier theoretical generalization serve as methodological principles affecting the way I discuss the research material. These principles and concepts define what questions I can address to my data and how I interpret the results.

The framework of the study lies in functional–typological linguistics applied to synchronic syntactic and semantic description and to diachronic explaining changes in grammar. The theoretical and methodological background is influenced by concepts of cross-linguistic and comparative studies and prototypical grammatical patterns found in the world’s languages in the spirit of the typological theory: “the body of knowledge about grammar built up over the years by analysis and comparison of different languages” (Nichols 2007: 232) and the Basic Linguistic Theory (Dixon 2010–2012). In this way, generalization based on analogies found in other languages for similar functional categories and their encoding, serve as models but are also challenged when naming, contrasting and analysing language-specific categories (Haspelmath 2010; for naming the categories in Tundra Nenets, see Section 1.4). Yet, analogous patterns found in other languages play an important role from the perspective of diachronic

---

2 In the final version of Article 2 the glottal stop is marked in superscript, e.g. šiʔ’i ‘I-ACC’, when otherwise šiʔmi, based on the decision made by the editor of Finnisch-Ugrische Forschungen. This convention makes the notation of the glottal stops regrettably asymmetrical, as the nasalizable glottal stop h is in normal size, while the non-nasalizable one is in superscript.
research as well. As there are no historical documents of Tundra Nenets language, the gradual changes in meaning and grammar cannot be traced from the documented earlier stages of the languages. Instead the paths of development need to be reconstructed. Analogous tendencies of development attested in other languages may serve as predictable models of semantic and syntactic change in this process (Traugott & Dasher 2002; see Section 2.3).

Moreover, the dynamic interrelationship of synchrony and diachrony is an essential part of the methodological approach. This approach relies mainly on the previous research on the mechanisms of syntax-semantics interface of grammatical and semantic change (e.g. as in Fox 1995; Traugott & Dasher 2002: 24–34; Hopper & Traugott 2003: 124–126; Giacalone Ramat et al 2013). While the possible development in meaning can be traced using the predictable paths of semantic change based on cross-linguistic data, the historical morpho-syntax can be approached on the basis of language-internal variation. This approach includes an assumption that variation in synchronic data may reflect diachronic change (Lehmann 1995; Hopper 1991: 22; Croft 1990). In synchronic variation, diachrony is often reflected in the way that the old form exists alongside the new one. This means that different forms that originate from the same source can be used in a language side by side in their own functions. In addition to this kind of language-internal variation, in closely related languages, lexical or grammatical historical cognates often differ from each other both in form and function. Thus, comparison of a certain expression to its cognates may show different stages of development and in this way, it may suggest the path of change. The theoretical background of the diachronic approach as well as the mechanisms and concepts of grammatical change are discussed in Section 3.3 in more detail.

Figure 2 below illustrates the dynamic approach of the study as well as the role of the generalizations and variation in the synchronic description and diachronic explaining.

Figure 2: Dynamic methodological approach applied in the study

As Figure 2 illustrates, synchronic description of syntax and semantics in one language utilizes comparative concepts of functional linguistics and generalization based on analogies found in other languages. Yet, at the same time, categories and their
functional roles described in individual languages may serve as analogies for other linguistic descriptions and re-evaluate the existing generalization and produce new ones. In the same vein, similar paths of semantic and syntactic change found in other languages are used in argumentation on diachronic processes, but at the same time, generalizations based on several patterns of development are tested by individual studies on explaining grammatical change. In this way, generalizations are understood from two different angles, the synchronic and the diachronic. In synchronic level generalizations refer to comparative categories in other languages, whereas in diachronic level they refer to similar patterns of development.

Variation is seen as a synchronic phenomenon, although on one hand it arises from diachronic processes, and on the other hand, it represents language change in progress (Croft 1990: 203). Different types of variation found in synchronic descriptions, such as formally similar lexical and grammatical items used in different functions, formally different items used in the same functions (dialectal variation and synonymy) as well as historically related items in related languages used in similar or different functions, reflect diachronic development. For this reason, different types of variation are used in explaining paths of grammatical change. (See Section 3.3 for more detail.)

Furthermore, another methodological principle of my study is to pursue precision in syntactic reconstruction. As the synchronic structure reflects the diachronic one, similar syntactic principles, rules and restrictions that hold in the synchronic level can be assumed to have existed in the diachronic level as well. Again, a syntactic structure that is ungrammatical in the synchronic level cannot be automatically assumed to have been grammatical in the diachronic level. For this reason, it is a crucial argument for example for the hypothesis of finitization of participles in the Samoyedic languages, that in synchronic level, participles can be used as non-verbal predicates without a copula. Moreover, another assumption connected to the development of non-finite verb forms is that only those non-finites that can act as a predicate of a clause may develop into finite verbal suffixes.

2.3 Research process

The choice of the research topic derives primarily from my MA thesis (Jalava 2008) which concentrated on the form and function of different epistemic and non-firsthand evidential markers in Tundra Nenets. The complexity and asymmetry of the different groups of the modal and evidential markers and the participial elements as parts of their suffixes begged the question of their origin and relationship to non-finite categories. When preparing my thesis, the question I wanted to seek answers to were, why there are a substantial number of inflectional modal and evidential suffixes in Tundra Nenets compared to other Uralic languages, and, how the appearance of the non-finite suffixes in the modal and evidential marking can be explained. These questions have inspired my work ever since, although the actual research questions concerning the individual articles and the whole study have been specified during the process. During the four-
year process I modified my research questions many times on the way as I got familiar the data and analysed it in more detail. Studying various grammatical structures of predication, I found a wider perspective for my initial interest on the Tundra Nenets modal and evidential marking in the questions connected to finiteness and its characteristics and limits in the change in grammar.

The work for the PhD thesis started in January 2011 when I began my four-year research period in Langnet, a Finnish doctoral programme in language studies. In addition to the doctoral programme Langnet, the environments of the study at the University of Helsinki have been Finno-Ugric language studies at The Department of Finnish, Finno-Ugrian and Scandinavian Studies, as well as the general linguistics unit at the Department of Modern Languages. As my aim was to combine the tradition of Finno-Ugric studies with the functional and typological perspective and to write my study keeping in mind that the potential readers could be oriented to either Finno-Ugric studies or to typology, I have had two supervisors, one representing each of these fields. Furthermore, the research includes fieldwork among the Tundra Nenets community, described in more detail in the Section 1.4.

The articles were written during the years from 2012 to 2014 and the introductory part during the period from the autumn 2014 to January 2015. The first journal article (Jalava 2013) arose from my interest on the interface and distinction of verbal and non-verbal predication in Tundra Nenets. Where verbs use the verbal predication strategy, non-verbal predication is the strategy used for nominal elements, such as nouns but also participles. For the topic of the article, adjectives were a natural choice, as they occupy the same syntactic positions as participles, often characterized as verbal adjectives.

The second and the third article investigate the development of the modal and non-firsthand evidential suffixes, most of them from participial predicates, but some of them, such as the first-hand evidential, have different origins. The second journal article (Jalava 2014) will appear soon after submitting the dissertation. The third article (Jalava, accepted a) is intended to be published in the volume *The Grammaticalization of Tense, Aspect, Mood and Modality from a Functional Perspective*, edited by Kees Hengeveld, Heiko Narrog and Hella Olbertz (submitted to Trends in Linguistics – Studies and Monographs TiLSM). Berlin: De Gruyter Mouton).

The fourth article (Jalava, accepted b), analyses different functions of the essive-translative, and it will appear in the volume *Uralic Essive and the grammatical expression of impermanent state* edited by Casper de Groot (submitted to Typological Studies in Language. Amsterdam: Benjamins). By the time that this volume was planned, it had become evident that the predications of stative relations as well as the changing potential of non-finite verb forms were major issues in my study. I decided to include the analysis of the essive-translative in the study as a counter example of the development of non-finite forms. The essive-translative suffix is used to mark secondary predicates or non-verbal predicates in special semi-copular constructions, and it is argued to have grammaticalized from a converb form, a non-finite verb form.
3. Theoretical background

In this section, I discuss the theoretical background of the study as well as the most central concepts and topics investigated in the articles and in the introductory part. Section 3.1 gives background to the concepts of finiteness and non-finiteness. Section 3.2 is dedicated to verbal and non-verbal predication and predication strategies, and, Section 3.3 to grammatical change.

3.1 Finiteness and non-finiteness

Finiteness is usually considered as a property of a clause that indicates finite features such as person, number, tense, aspect and modality (Givón 1990: 853; Koptjevskaja-Tamm 1999: 146). Usually, these features are associated with the main predicate of a clause. Similar features are often considered characteristics of verbs as a lexical category, as lexical categorization is often based on the prototypical semantic and syntactic features (Croft 1991: 67; 2001: 88). Verbs in many languages are inflected to encode tense, aspect, modality, and evidentiality, and they might agree with the person, and number of their arguments, such as the subject.

As for the notion of non-finiteness, it is often considered as an opposite of finiteness and therefore associated with forms that lack properties characteristic to finiteness, such as subject agreement and tense and modality marking. Normally non-finite forms do not function as only predicates of independent sentences. (Koptjevskaja-Tamm 1999: 146; Ylikoski 2003: 186; Nikolaeva 2007.) Instead, non-finite forms usually act as attributes, arguments, adverbial, and in many languages they might appear in noun phrases and take case and possession marking (Givón 1990: 853; Koptjevskaja-Tamm 1999: 146). These features, for their part, are usually considered to be characteristic to nouns.

The most characteristic features usually associated with finiteness (finite forms) and non-finiteness (non-finite forms) are summarized in Table 3:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Non-finiteness</th>
<th>Finiteness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clausal (in)dependence</td>
<td>subordinate clause</td>
<td>matrix clause</td>
</tr>
<tr>
<td>Clausal functions</td>
<td>attribute, argument, adverbial</td>
<td>main predicate</td>
</tr>
<tr>
<td>Inflection</td>
<td>case, possession etc.</td>
<td>tense, aspect modality etc.</td>
</tr>
</tbody>
</table>

Table 3: Proto-typical finite and non-finite features
Even though finite and non-finite forms usually have characteristics typical to *thema* ‘verb’ or ‘predicate’ and *onoma* ‘noun’ or ‘subject’, these notions are on no account interchangeable, as both finiteness and non-finiteness are traditionally considered as properties of a verb. This indicates that verb forms can be divided into finites and non-finites.

Yet, the distinction between finite and non-finite elements if not always clear-cut, and in functional studies, finiteness and non-finiteness has been consireded more as a continuum than as a dichotomy (Cristofaro 2007; Nikolaeva 2007). The number of features characteristic to finiteness varies in different languages. In the prototypical case, as in many languages, finite verbs acting as the main predicate of a clause indicate person, number, tense, aspect and mood, while non-finite forms used only in subordinate clauses, do not show these features. In some languages, however, the scenario is different. For example in a number of languages such as West Greenlandic (Eskimo-Aleut) and Abkhaz (north-west Caucasian), independent and dependent clauses are more or less similar, and they only differ in their independent/dependent moods (Koptjevskaja-Tamm 1999: 147). Again, in Tundra Nenets characteristically suffixes of finite categories such as modal and evidential markers consist of non-finite participial elements as argued in Articles 2 and 3. For these reasons, finiteness is not usually considered as cross-linguistically comparative notion, as categories that are considered characteristic to finiteness have different realizations in different languages (Nikolaeva 2007). Respectively, non-finiteness as such is not a cross-linguistically comparative category and it cannot be defined in the same way in different languages (Cristofaro 2007). It is usually seen in contrast to finiteness that in functional studies and theories is understood as a tendency or scalar phenomenon, as different languages mark certain categories and constructions to different degrees for tense and modality and subject agreement, the features traditionally considered characteristic to finiteness (Nikolaeva 2007). In Finno-Ugric studies, finiteness has traditionally been discussed in relation to the numerous non-finite verb forms found in the Uralic languages.

Despite that non-finiteness as such cannot be considered a cross-linguistically comparative category, for different types of non-finite categories such as participles, converbs and action nominal, cross-linguistically applicable functional definitions can be found in typological literature. Types of non-finites that occur in similar functions from one language to another are participles, converbs and action nominals. (Koptjevskaja-Tamm 1999; Haspelmath 1995; Ylikoski 2003.)

First, participles can best be characterized as verbal adjectives or non-finite verb forms specialized for adnominal subordination (Haspelmath 1994; 1995: 4, 7; 1999: 110–111). In other words, participles are forms derived from verbs that are used to modify a noun, and in this respect participles share many of the syntactic properties of adjectives, especially the ability to be used attributively, functioning as heads of relative clauses (Haspelmath 1994: 152). Consider examples 5–7 from Tundra Nenets.

(5)  

\[
\text{škola-}xəna \quad məncəra-na \quad ni \\
\text{school-LOC} \quad \text{work-PTCP} \quad \text{woman}
\]

‘The woman working at the school’
Second, converb is a non-finite verb form whose main function is to mark different kinds of adverbial meanings in subordination (Haspelmath 1995: 4; 1999: 110–111). In Finno-Ugric tradition, terminology that has been used to refer to converbs includes terms such as gerund, in other traditions also adverbial participle, conjunctive participle, gerundive (Ylikoski 2003: 189). Examples 8 and 9 represent two different converbs in Tundra Nenets, the infinitival converb (8) and the purposive converb (9):

(8) ıne ɲačekei-m mône-ć puxuča xonra-da:
woman child-ACC look-CNV old.lady ask-SG>3SG

pidor xib’a-n, xuń-ad to-n?
you who-2SG where-ABL come-2SG

‘Looking at the girl the old woman asked: Who are you, where do you come from?’ (JamLa: 13)

(9) ɲani ɬit wed’e-mônć to-sake-dm?
again you.ACC meet-PURP come-OBL-1SG

‘I will come to visit you again.’ (JamLa: 33)

Third, action nominals can be defined as verbal nouns, or, non-finite verb forms specialized for argument subordination, or complementation (Haspelmath 1995: 7). These forms usually act as complements to predicates and refer to propositions, facts or events (Koptjevskaja-Tamm 2013). In different traditions of linguistics and research on different languages various terms has been used for action nominal, such as verbal nouns, gerunds, nominalizations, masdars, infinitives (Koptjevskaja-Tamm 1993: 22–43). In Finno-Ugric tradition, e.g. in Samoyedic and Finnic studies, the term infinitive is frequently used. In Tundra Nenets, there are two inflectional action nominal suffixes, one imperfective and one perfect. The imperfective action nominal suffix -wa encodes imperfective events or actions, whereas the perfective action nominal suffix -ʔma is used when referring to past or concluded events or actions, or, their results or products as in examples 10a and 10b below.

(10a) xañe- ‘to hunt’ \(\rightarrow\) impf. xañewa ‘hunting’
(10b) soja- ‘originate, be born’ \(\rightarrow\) pf. sojaʔma ‘birth’
Table 4 below is adapted from derived verb forms with different word class status presented by Haspelmath (1995: 4) and the main types of non-finite verb forms, their syntactic functions and “new word-classes” in Ylikoski (2003: 198). The concept of (“new”) word class derives from the idea that non-finites, changing the word-class of verbs into something else, can be paralleled to such word classes as adverbs (cf. converbs), adjectives (cf. participles) and nouns (cf. action nominals).

<table>
<thead>
<tr>
<th>Types of non-finites</th>
<th>Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Converb</td>
<td>Adverb (Adverbial modifier)</td>
</tr>
<tr>
<td>Participle present, past, future</td>
<td>Adjective (Adnominal modifier, predicate)</td>
</tr>
<tr>
<td>Action nominal</td>
<td>Noun (Argument, predicate)</td>
</tr>
</tbody>
</table>

Table 4: Types of non-finites and their equivalents in word class and syntactic position (on the basis of Haspelmath 1995: 4 and Ylikoski 2003: 198)

3.2 Verbal and non-verbal predication in Tundra Nenets

The use of participles and verbal nouns as non-verbal predicates without a copula (nominal conjugation of the non-finite verb forms) in Tundra Nenets, as in many Uralic languages and languages of the Altaic type, makes them excellent candidates to become used as finite forms over time. In this section, I explain the criteria to distinguish verbal from non-verbal predicates in Tundra Nenets and discuss non-verbal predication in the context of Uralic and also other languages.

While for example in English, person agreement is not available for predicative nouns and adjectives, and a clause like *John tall-s is not acceptable (Stassen 2013), in Tundra Nenets, in a similar way as for example in Turkic and Mongolic languages, verbs and nouns and adjectives use person agreement in predicate position, without applying any copular element in affirmative clauses, as it was demonstrated for nouns and verbs in Section 1.1 by examples 1 and 2. Consider 11a–c:

Tundra Nenets (NenTay2011_RPJ)

(11a) ńerta-dm? make-1SG  ‘I make’
(11b) papa-dm? little.sibling-1SG  ‘I am a little sister’
(11c) ńwa-dm? good-1SG  ‘I am good’
The main word classes, noun and verbs, are differentiated by morphological and syntactic criteria (Salminen 1993), and their predicate structure is different as was demonstrated in Table 1 in Section 1.3. Lexical items expressing adjectival functions belong to one of these main word classes, although they differ from ordinary noun and verbs in their use (see Article 1). Nonetheless, also in predication, verbs and nouns differ from each other. Only verbal predicates, often expressing actions and events, can appear in transitive clauses and take the agreement suffixes of the objective and reflexive conjugation. As for non-verbal predicates, they are always intransitive, and they typically encode stative relations such as predication of class (proper inclusion) (as in example 11b) or property (attribution) (as in example 11c) (Payne 1997: 111–112; Stassen 1997, Eriksen 2006). In addition to nouns and adjectival nouns (as in 11b and 11c), participles and occasionally also action nominal can also be predicated using non-verbal strategy. Furthermore, in addition to subject agreement, nominal predicates are also inflected for past tense. Consider example 12 with a participial predicate agreeing with the subject and the past tense:

(12) \textit{xaa-ne-na-dm-ć}  
hunt-PTCP-1SG-PST  
‘I was a hunter’ (NenTay2011_TMP)

As verbs have more choices of conjugation patterns than nouns and they are used in transitive clauses, subjective conjugation of intransitive predicates is the only conjugation patterns where verbs and nouns are predicated in the same way. However, in this type of conjugation as well, verbal and nominal predicates differ from each other when for example negation or marking of modality and evidentiality is included. For this reason, two different predication strategies can be distinguished, namely verbal and non-verbal predication. As the names suggest, verbal predication is used for verbs, and non-verbal predication is used for nouns and other nominal categories, “non-verbs”, as illustrated in Table 5:

<table>
<thead>
<tr>
<th>Predication strategy</th>
<th>Category of the predicate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal predicate</td>
<td>Verb</td>
</tr>
<tr>
<td>Nonverbal predicate</td>
<td>Noun, adjectival noun participle, action nominal</td>
</tr>
</tbody>
</table>

Table 5: Predication strategies and categories of the predicates in Tundra Nenets

In negative clauses and in connection with modal and evidential, as well as future and habitual marking, nominal predication displays a copula verb na- ‘be’. In negations, Tundra Nenets uses double predication, as both the nominal predicate and the negative auxiliary are conjugated in terms of the subject. The copula na- ‘be’ is needed to carry
the special connegative suffix (see (13)), which in verbal predication is affixed to the lexica main verb as in (14).

(13) xańena-dm?  nī-dm?  ça-ʔ
     hunter-1SG  NEG-1SG  be-CNG
     ‘I am not a hunter.’ (NenTay2011_TMP)

(14) nī-dm?        tū-t-ʔ
     NEG-1SG       come-FUT-CNG
     ‘I won’t come.’ (JamLa: 100)

Furthermore, in modal and evidential marking, the copula is needed to carry the suffixes in Tundra Nenets, as in most languages that do not use copula in affirmative indicative present tense predicate nominal but use a copula in certain tenses, aspects and moods (Payne 1997: 118). In contrast, verbal predication the modal and evidential suffixes are affixed to the verb stem of the predicate. Consider example 15 for nominal predicate with the narrative mood suffix on the copula, and example 16 for a verbal predicate, suffixed with the obligatory mood marker.

(15) to-h  małŋkəna  xańena  ya-e-wī
     that-GEN  during  hunter  be-NARR.3SG
     ‘At that time, he was a hunter.’ (NenTay2011_TMP)

(16) məñ  xůńana  to-bsake-dm?
     I  tomorrow  come-OBL-1SG
     ‘Tomorrow I promise to come’ (NenTay2011_OJ)

It is important to notice that the definition of the language-specific predication strategies, verbal and non-verbal in Tundra Nenets differ from the definition used by Stassen (1997) for cross-linguistically applicable criteria for distinguishing verbal and nonverbal encoding. In Stassen’s terminology, verbal strategy or verbal encoding of a predicate refers to a situation where the predicate is conjugated, i.e. it takes agreement suffixes. Thus, using Stassen’s terminology, nominal predicates in Tundra Nenets would be classified as employing verbal strategy. In order to distinguish the two different categories of predicates in Tundra Nenets, however, the terms verbal predicate (for verbs) and non-verbal predicate (for nouns, adjectival nouns, participles and verbal nouns) is more justified.

Moreover, in terms of finiteness, verbal predicates in Tundra Nenets can be considered finite predicates, as they are always verbs and can be inflected for tense, modality, evidentiality and person of the subject. However, non-verbal predicates respectively cannot automatically be considered to be equal with non-finite predicates. First, not all of the non-verbal predicates are non-finite verb forms, as nouns and adjectival nouns that are not referred to as non-finite, even though they lack most of the finite properties. Second, non-verbal predicates behave differently from verbal
predicates in terms of some features that are considered to be finite, such as modality and evidentiality. Yet, they agree with person and are also inflected for past tense, which means that they do apply some features usually considered as finite. Third, not all non-finite verb forms can be predicated. Usually only participles and action nominal can act as a main predicate and take verbal subject agreement suffixes, and therefore they can be considered more finite than converbs that occur mainly in subordinate positions and show person agreement only with possessive suffixes.

3.3 Grammatical change

Languages change over time in several ways and for many different reasons. Variation and change take place for example in phonetic, morpho-syntactic, lexical and semantic features of a language. For creation of new grammatical categories and change and recreation in their markers, especially morpho-syntactic and semantic changes are essential. In this section I discuss the most central concepts and mechanisms regarding these changes.

During the last decades, change in the grammatical structures has often been discussed under the title grammaticalization, both in theoretical and descriptive studies on languages. The initial definition for grammaticalization by Meillet (1948 [1912]), “the attribution of grammatical character to an erstwhile autonomous word”, is still one of the basic meanings of the term. Today grammaticalization is usually understood as a gradual process of language change by which lexical items transform to become grammatical markers, or grammatical markers become even more grammatical (Langacker 1977; Traugott & Heine 1991; Bybee et al 1994). A well-known example is the development of manner adverbs with the suffix the ending -mentel-ment in Romance as in French lentement ‘slowly’, deriving from a lexical noun mente ‘mind’ in ablative case (Hopper & Traugott 2003: 140–141). Another example is the English adverbial -ly has developed out of derivational -like, which itself goes back to Old English lic ‘form, body’ (Nevalainen 1997).

In the broadest sense grammaticalization is “process by which grammar is created” (Croft 2006: 366). This kind of broad definition is close to the sense that I understand grammaticalization in this study. I see it as a concept referring to the process that leads to the emergence of a new grammatical category. However, some researchers have also understood grammaticalization as an independent theory used for explaining why grammatical constructions are formed (Heine et al. 1991; Heine & Kuteva 2002: 2). One of the background assumptions behind grammaticalization theory is the hypothesis of unidirectionality. This means that grammaticalization works in one direction only, and it always leads from less grammatical to more grammatical constructions. Moreover, grammaticalization involves four main mechanisms that are involved in the process: semantic bleaching (loss of semantic content), extension (use in a new context), morphological reduction (decategorization) and phonetic reduction (loss in phonetic substance) (Heine & Kuteva 2002: 2).
My view of grammatical change, is based on arguments of those scholars who, contrary to the view of grammaticalization theory, do not see grammaticalization as a mechanism of change in its own right, but a process that relies on mechanisms that are previously well-known in historical linguistics, such as reanalysis and analogy (Newmeyer 1998: 295; Campbell 2000: 141; 2001; Joseph 2001). Research of Finno-Ugric languages is a good example of a tradition where the mechanisms and cycles of linguistic change have traditionally been explained in a similar manner than what today is understood as principles of grammaticalization studies (see e.g. Ravila 1947). Additionally, many counterexamples have been suggested to the unidirectionality hypotheses, one of the main principles of the grammaticalization theory, for example, in Northern Saami, the old Finno-Permic abessive case suffix (-taga ‘without’) has developed into a postposition haga, an independent word (Campbell 2000: 127; Nevis 1986). Yet, I find the concept grammaticalization harmless and in many cases useful when referring to processes involved in grammatical change.

A principal mechanism of grammatical change is reanalysis (Campbell 2000: 141), a concept that has with long traditions in the history of linguistics, cf. e.g. Paul’s (1920 [1898]) abweichende Neuerzeugung ‘divergent reanalysis’. Langacker (1977: 58) defines reanalysis as “change in the structure of an expression or class of expressions that does not involve any immediate or intrinsic modification of its surface structure”. Change of a grammatical structure begins with semantic variation, when new meanings arise through language use. Due to the slightly different semantic meaning, a construction or grammatical category is reanalysed as a new one (Harris & Campbell 1995: 70–72). Reanalysis of a given grammatical category as a new category does not include immediate notable change in the form (Langacker 1977: 58), e.g. be going to in English has first referred to motion and later developed into a future marking, while the original function has remained in the language.

As it was briefly discussed in the Section 2.2 on methodological approach, synchronic variation rising from diachronic processes and can be seen as gradual language change in progress, plays an important role in explaining grammatical change (Lehmann 1995; Hopper 1991: 22). Different types of variation can be distinguished (e.g. Croft 1990: 225–226). For example, there are often several expressions in a language for one function, as expressions and also markers of grammatical categories may be recreated without the older expression being replaced, e.g. will and be going to, both developed into future markers in English. In the diachronic perspective, this kind of synonymy is continuous emergence of new expressions (Hopper 1991: 22). In addition to this kind of variation in form, variation may occur in function. A situation where a same or a similar construction or marker is used in two or more grammatical functions that are semantically related can be called polysemy (Croft 1990: 226). Detecting this kind of variation in function is crucial in research of grammatical change. Investigating variation in different functions of a single construction or morpheme within a single language, or, in two or more closely related languages, we can reconstruct the gradual semantic changes of the constructions and understand process where the original construction has been reanalysed in a new grammatical function. In this way, synchronic homonymy, such as in Tundra Nenets the similarity of participial
and modal/evidential suffixes (see Article 3, pages 5–14), or the essive-translative suffix and the converb form of the copula verb (see Article 4, pages 14–15), may reveal diachronic polysemy of a single grammatical marker that has led to reanalysis of the old construction as a new one.

Finally, there are patterns of semantic change that appear in languages spoken in different parts of the world (Traugott & Dasher 2002: 24–34), for example deontic modality -> epistemic modality (Bybee et al. 1994: 284) or location -> existential (Heine & Kuteva 2002: 203). Yet, there are also tendencies of semantic and structural change shared by languages that are spoken in the same area or that represent the same typological structure. When two or more languages have the source and the target of a grammaticalization process in common, it can be considered an example of shared grammaticalization, may the reasons for it be in contact-induced language change, or areal genealogical or universal motivations (Robbeets & Cuyckens 2013: 1).

Emergence of finite categories such as modal suffixes on the basis of non-finite verb forms is a path of development found in many different languages (Koptjevskaja-Tamm 1999: 149). In Siberian languages this process occurs frequently, and it can be considered a general areal feature in Siberian languages (Malchukov 2013). Especially when it comes to verbalizing (finitivizing) of participles into finite predicates, this tendency can be found also in Finno-Ugric languages (e.g. Janhunen 1998). For instance, reanalysis of present participles has produced the 3rd person verbal suffixes in Finnish and Mordvinic, and in many Uralic languages such as Komi, Khanty and Nenets, as argued in Article 2, past participles have developed into evidentials (e.g. Leinonen 2000, Csepregi 2014).

---

3 Page numbers of the Article 3 are given here according to the draft version included in the paperback version of the dissertation.
4 Page numbers of the Article 4 are given here according to the draft version included in the paperback version of the dissertation.
4. Summary and central results of the articles

This section presents a brief summary of the articles included in the study. Section 4 discusses the main results of the whole dissertation, and discussion and conclusions of the results are provided in Section 5, the final section of the introductory part.

Article 1


The first article investigates property words (adjectival words), that is, lexical items with semantics typical to adjectives, their syntactic characteristics and their categorization in Tundra Nenets. In the background of the study is discussion on cross-linguistic universality of adjectives and criteria in linguistic categorization (Dixon 1977, 2004; Wierzbicka 1986; Evans & Osada 2005; Chafe 2012). In Tundra Nenets property is expressed either by adjectival nouns such as pîrča ‘high, tall’ or by stative verbs such as têčə- ‘be cold’. In other words, in Tundra Nenets property words represent two main word classes: nouns and verbs. Both types of property words are used in functions typical to adjectives, but depending on their word class, their morpho-syntactic form is different in those positions. The article concentrates on those morphological and syntactic features of Tundra Nenets property words that are typical to adjectives in other languages. The same functions are also characteristic to property words in Nenets: attributive and predicative positions, derivation, comparative construction and the formation of adverbs of manner. The study argues that Nenets property words have features that distinguish them from other nouns and verbs. From the perspective of verbal and non-verbal predication and their distribution, property words are an interesting field of research. In predicate position, adjectival nouns appear in non-verbal predicate construction applying copula in negation and in non-indicative clauses, whereas adjectival stative verbs apply the verbal strategy. Nevertheless, adjectival nouns and verbs are used equally in different kinds of adjectival positions, and so, when it comes to property expressions, nouns and verbs can appear in similar syntactic positions. In other words, the syntactic positions typical to adjectives are not reserved only for words that represent a certain (sub)word class, but the language allows both nouns and verbs in these functions, both applying their own strategies in different positions. The article enlightens the status of the property words in Tundra Nenets and investigates their functional characteristics. Furthermore, the findings also suggest that intransitive predicate position in Tundra Nenets is open for variation in the way that semantically similar predicative elements (adjectival predicates) can be encoded using different strategies (verbal and nominal). It can be concluded that intransitive (adjectival) predication in Tundra Nenets, as it allows variation and
different types of predicates, is a potential position for change in the predicate constructions.

**Article 2**


The second article examines the function and possible grammaticalization path of the evidential marker, traditionally labelled as the *narrative mood* in Tundra Nenets. The narrative mood is used as an evidentially marked past tense form, and it may encode different types of non-firsthand information such as hearsay and inference, and also mirativity, typically the English translation is ‘as it appears’. The function of the verbal form is close to indirectives occurring in Turkic and their neighbouring languages in South-Eastern Europe and Western Asia (Lazard 2001: 361–364; Johanson 2000), as well as in eastern Finno-Ugric languages (Leinonen 2000: 419). In many other languages, the indirective, covering a large area of semantic functions, is typically the only evidential form of the language. In Tundra Nenets, however, the narrative mood is part of a rich category of modal and evidential markers. In addition to analysing the narrative mood as part of the evidential system in the language, the study focuses on the origin of the form. In Tundra Nenets, like also in many Turkic and Tungusic languages, the narrative mood suffix is homonymous with the past participle suffix that in predicate position denotes resultative state. It is a well-known tendency attested in the languages of Eurasia, especially in Turkic and Indo-European languages that resultative state markers often grammaticalize into perfect tense and further into indirect evidential (Dahl 1985: 152; Bybee et al. 1994: 68, 95; Johanson 2000). Resultative signals a state that exists as a result of a past action (Nedjalkov & Jaxontov 1988[1983]: 6), whereas perfect is usually defined as past action with current relevance (Nedjalkov & Jaxontov 1988: 15, Bybee et al. 1994: 54, 61). However, the narrative mood in Nenets derives from Proto-Samoyedic language, and so does the past participle suffix. Their phonological relations in other Samoyedic language suggest that they might also be of different origin, albeit the forms resemble each other. In this case the homonymy of the two forms in Tundra Nenets would not signal a straightforward reanalysis of the resultative past participle as narrative mood. Nevertheless, the semantics of the two forms in Samoyedic languages and the model of their grammaticalization in the neighbouring languages imply of the common origin. Moreover, often in languages that use copulaless nominal predication, the evolution of resultatives into indirectives or perfects, is directly linked to nonverbal predicates becoming part of verbal predication strategies – in Samoyedic languages in this case, the past participle predicates developing into a finite evidential suffix.
The third article concentrates on the two most common grammaticalization paths that have produced modal and evidential suffixes in Tundra Nenets. These two paths of development are verbalization of participles and insubordination. Verbalization of participles is a mechanism that has produced majority of the modal and evidential suffixes in Tundra Nenets (10 of altogether 16 finite suffixes). The other main strategy of grammaticalization, insubordination, is a pattern of development behind the only first-hand evidential in the language, traditionally referred to as the auditive that represent features of a subordinate clause such as possessive agreement. The first-hand evidential suffix was originally a lexical item, a noun ‘voice’, ‘sound’ that was affixed to the nominalized verbal for in the original subordinate clause such as ‘the sound of X’. By ellipsis of the original main predicate, the subordinate clause began to be used independently. In contemporary Tundra Nenets the two different strategies of grammaticalization are reflected by the categorial status of the modal and evidential suffixes. The suffixes that originate from verbalized participles or combinations of a participial and a derivational element are part of the mood category, which means that syntactically they behave in the same way as for example imperatives and conjunctives. As for the direct evidential suffix, it differs from the modal and non-firsthand evidential suffixes morpho-syntactically, and for this reason it cannot be included in the same morphological category. Both of these grammaticalization paths represent an areal pattern encountered in many Siberian languages (Malchukov 2013). The semantic changes in the grammaticalization of modal and evidential suffixes in Tundra Nenets are analogous with many similar tendencies attested in different languages. These are: 1) resultative $\rightarrow$ perfect, 2) prospective aspect $\rightarrow$ necessity $\rightarrow$ future, 3) similarity $\rightarrow$ inference based on visual $\rightarrow$ inference, probability, and, 4) lexical item ‘sound, voice’ $\rightarrow$ first-hand evidentiality. In addition to suggesting grammaticalization paths for the modal and evidential suffixes, the article suggests new etymologies for two suffixes that appear in the modal and evidential markers in the (Northern) Samoyedic languages. Arguably, the simulative suffix is a Turkic loan, and the necessive/debitive suffix derives from a Proto-Samoyedic future participle.
The fourth article analyses functions of the essive-translative suffix in Tundra Nenets. The study examines the use of the essive-translative constructions in functions typical to essives and translatives in the Uralic language, most typically in expressions of temporary location or state of being (cf. English as a (child)) and change of state or becoming something. Moreover, the article argues that the essive-translative suffix -ŋæ originates from a converb of the copula ‘be’ that is affixed to the preceding predicative adverbial noun. The essive-translative suffix in Tundra Nenets has two distinct functions: to express a temporary state of being (Essive interpretation) and a change in state (Translative interpretation). The interpretation, essive or translative follows from the copular verb used in the construction. In a construction that has an essive meaning, the noun marked with the essive-translative suffix is followed by the semi-copula verb tara- ‘be necessary’, and with the translative meaning ‘to become something,’ the semi-copula verb xaja- ‘to leave’ is used. In addition to the essive and translative constructions, the essive-translative in Tundra Nenets occurs in secondary predications, having either an essive-like use, as with verbs such as ‘to work (as something)’ or for circumstantial secondary predicates, or, translative kind of use for resultative secondary predicates. In context of the whole study in hand, the essive-translative is most importantly an example of changing non-verbal predicate construction, where a converb form of a copular verb ‘be’ grammaticalizes into essive-translative suffix. Thus, the essive-translative in Tundra Nenets, like in other Samoyedic languages could be considered an example of a rather unusual development of converb form of a verb transforming into a case-like predicative suffix.
5. Discussion on the main results

In this section I discuss the main results of the whole study. Each subsection (5.1–5.3) is connected to one of the research questions concerning Tundra Nenets. Section 5.1 discusses the categories that show interface of verbal and non-verbal predication and the scale of finiteness. Section 5.2 concentrates on the mechanisms behind the changes in the studied categories, while the question of the changing potential and finite properties of non-finite forms is examined in Section 5.3.

5.1 The interface of verbal and non-verbal predication

In section 3.2 it was shown that there are two different predication strategies in Tundra Nenets, verbal and non-verbal strategy that differ from each other for example in negation and in modal and evidential marking, where only non-verbal predicates use a copula. Verbal predication is used for verbs, and non-verbal predication, respectively, for nouns (as in examples 1 and 2 in 1.1). In this section, based on the results on Articles 1, 2 and 3, I discuss those functions and clause types where these two predicate types are closest to each other, i.e. where either their functions or forms are similar. This question is connected to the hypothesis that non-verbal predication of participles, serves as a basic condition for them to develop into markers of finite verbal categories.

I argue that here the most important functions encoded are predications of stative relations (different expressions of “being”) (Hamari 2007), such as predication of property (attribution), class (proper inclusion) (Eriksen 2006: 1–3; Payne 1997: 111–112). Predications of stative relations are studied from two different angles. Firstly, the adjectival words in Tundra Nenets (studied in Article 1) represent two main word classes and thus two different predication strategies. Secondly, participial predicates which encode functions such as resultative or prospective state are non-verbal predicates, but they share many morpho-syntactic properties with modal and evidential categories. These categories that show interface of verbal and non-verbal predication are illustrated in Table 6 and explained in more detail below. (Based on Articles 1, 2 and 3.)
Table 6: Functions encoded with different types of predicates in Tundra Nenets

<table>
<thead>
<tr>
<th>Encoded function</th>
<th>Category of the predicate</th>
<th>Predication strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action, event</td>
<td>Verb</td>
<td>Verbal</td>
</tr>
<tr>
<td>Property</td>
<td>Verb (stative) Adjectival noun</td>
<td>Verbal Non-verbal</td>
</tr>
<tr>
<td>State (resultative, prospective)</td>
<td>Participle (resultative, necessive)</td>
<td>Non-verbal</td>
</tr>
<tr>
<td>Class</td>
<td>Noun Participle (actor)</td>
<td>Non-verbal</td>
</tr>
</tbody>
</table>

In Tundra Nenets words that denote property, i.e. the semantic category of adjectives, are divided to the two main word classes in the language, so that property is expressed either with adjectival nouns or verbs (see Article 1). This is a domain where the language allows the two different predicate types to express similar functions. As intransitive stative verbs with adjectival function can be inflected only for the subjective conjugation, they are in some contexts predicated in the same way as adjectival nouns:

(NenTay2011_RPJ)

(17a)  
\[ \text{ti} \quad \text{pəřiđe} \]  
reindeer be.black.3SG  
‘The reindeer is black.’

(17b)  
\[ \text{ti} \quad \text{ser} \]  
reindeer white.3SG  
‘The reindeer is white.’

Yet, ‘black’ and ‘white’ belong to different major word classes; \text{pəřiđe}- ‘(be) black’ is a verb, while \text{ser} ‘white’ is a noun, which can first of all be seen in their different negation structure (Salminen 1993; Article 1 (Jalava 2013: 48)). The negation of the verb \text{pəřiđe}- ‘be black’ (see example 18) is formed as standard negation of any verbal predicate, and, in the negated predication of the noun \text{ser} ‘white’, the copula construction is used (example 19).

(18)  
\[ \text{ti} \quad \text{ńi} \quad \text{pəřiđe}-\text{ʔ}. \]  
reindeer NEG.3SG be.black-CNG  
‘The reindeer is not black.’ (NenTay2011_RPJ)

(19)  
\[ \text{ti} \quad \text{ser} \quad \text{ńi} \quad \text{ŋa}-\text{ʔ}. \]  
reindeer white.3SG NEG.3SG be-CNG  
‘The reindeer is not white.’ (NenTay2011_RPJ)

Property words that express dimension, (such as \text{ŋarka} ‘big’ and \text{ńuđa} ‘small’), age (\text{jedej} ‘new’, \text{ńewxi} ‘old’) and value (\text{səwa} ‘good’, \text{wəwa} ‘bad’) are typically nouns and use non-verbal predication. These represent the core semantic types of adjectives
suggested by Dixon (2004: 3–4, 44) that are the most probable properties to be expressed with adjectives. Colour, fourth of the core semantic types, is in Tundra Nenets expressed with both noun-like and verb-like adjectives, as examples 20a and b demonstrate. Property words that express speed, physical property and human propensity, represent both word classes, e.g. mēre- ‘(be) fast’ tečə- ‘(be) cold’, jepə- ‘(be) hot’ and šadoč ‘(be) beautiful’ are verbs, whereas lək ‘fast’, šiböč ‘light’ and šenc ‘healthy’ are nouns. (See Article 1 (Jalava 2013: 55–56).)

In modifying position in a noun phrase, adjectival stative verbs appear in participle form as in 20a, whereas nouns are in an unmarked basic form 20b.

(NenTay2011)

(20a) pərid'e-ña ti
be.black-PTCP reindeer
‘a black reindeer’

(20b) ser ti
white reindeer
‘a white reindeer’

Even though participial forms of adjectival stative verbs usually appear only in the modifying and not the predicate position (compare examples 17a and 20b), participial predicates also occur as non-verbal predicates, as in example 21:

(21) jiři-wa? yobkəd jənəko-da
grandfather-1PL.POSS constantly joke-PTCP.3SG
‘Our grandfather is such a joker’ (T65: 122)

Most commonly, present participles in a predicate position are formed of verbs that denote a role or a profession, such as ‘teacher’ in class inclusion clauses:

(22) mən məncəra-na-dm?
I work-PTCP-1SG
‘I am a worker.’ (A61: 52)

In addition to the present participle predicates, two other participles, past and future participle appear in predicate position. In Article 2 (Jalava 2014) the past participle predicate was analysed in contrast to the evidential perfect suffix, the so-called narrative mood that has a suffix identical to the past participle suffix -we (~wī). It was found that the participial predicate encodes resultative state, as in example 23 below, and that it is a non-verbal predicate, whereas the narrative mood (24), is a verbal predicate.

(23) šanoj šanako to xoča-xəd sæd-wī
one toy patch-ABL sew-PTCP.PST.3SG
‘One toy is sewn of patches’ (one toy (is) of-patch sewn)
(NW: 19/7/2008)
Moreover, even though non-verbal predicates do not usually take direct objects, there following non-verbal predicates, the first with the future participle and the second with a participial-like resultative derivative suffix, occur with a direct accusative object:

(25)  
\[ \text{pida } \text{\textsc{n}a}^{-m} \text{ temta-w\textsc{\textsc{n}a}} \]  
\[ \text{S/he } \text{bread-ACC } \text{buy-PTCP.FUT.3SG} \]  
\[ \text{‘S/he is supposed to buy bread’ (NenTay2011\_VIZ)} \]

(26)  
\[ \text{pida } \text{\textsc{\textsc{n}o}ka } \text{\textsc{\textsc{n}om}ke-m? } \text{\textsc{\textsc{n}erm-h } ja-h je?m\textsc{\textsc{n}a} } \]  
\[ \text{(s)he much } \text{thing-ACC } \text{north-GEN land-GEN for} \]  
\[ \text{\textsc{\textsc{s}erta}-bej} \]  
\[ \text{do-RES.3SG} \]  
\[ \text{‘She has done a lot for the northern land.’ (NW: 15/11/2005)} \]

These forms, the future participle and the resultative suffix, even though they are non-verbal predicates, are used in similar functions as modal and evidential forms (see Article 2 (Jalava 2014) and Article 3, pages 3, 7, 9, 12). The resultative suffix seems to be replacing the narrative mood (as in 26) as the perfect form in the Western varieties of Tundra Nenets (see Article 2 (Jalava 2014: 228, 232)), whereas the future participle has similar functions with the necessive mood, which is suggested to originate from an old future participle suffix that is no more used in Tundra Nenets in its original function (see Article 3, pages 8–10), as in example 27.

(27)  
\[ \text{\textsc{\textsc{m}o\textsc{\textsc{\textsc{n}i}}} } \text{x\textsc{\textsc{\textsc{u}n}ana} } \text{to-bsu-dm?} \]  
\[ \text{I } \text{tomorrow come-NEC-1SG} \]  
\[ \text{‘Tomorrow I will probably/I have to come’ (NenTay2011\_OJ)} \]

Another example of similar functions of a non-verbal and verbal predicate with participial elements in their suffixes, are the simulative-evidential forms investigated in Article 3, pages 10–14. The simulative-evidential suffix consists of a simulative suffix \textit{\textsc{r}axa} (\textasciitilde\textit{\textsc{r}axa}) affixed to a participial form. The simulative-evidential has different suffix variants for different temporal references, according to the temporal reference of the corresponding participle. As for the simulative suffix, it is argued to be a Turkic loan from a moderative suffix (Article 3, page 13). However, one of the suffix variants, consisting of the past participle suffix \textit{\textsc{we}} (\textasciitilde\textit{\textsc{me}}) and the simulative suffix, is a non-verbal predicate as the copular negation in (28) reveals. The other variants, as example
29, are verbal predicates, which can be noted in example 29 from the use of the objective conjugation that is not available for non-verbal predicates.

(28) \( \eta \omega m k e x o r t\)-m \( \text{p}e\text{r}-\text{m}e\text{-rxa} \) \( \tilde{n}\tilde{t} \) \( \eta\tilde{a}\)-?  
something-ACC do-PTCP.PST-SIM NEG.3SG be-CNG  
‘As if nothing had been done’ (T65: 377)

(29) \( \text{i}\tilde{e}\text{n}e\text{w}a\)-narxa-da  
know-SIMEV-3SG>SG  
‘S/he seems to know that’ (Labanauskas 1982: 287)

The convergence of the verbal and non-verbal predicates as well as the functions where the two predicate types are closest to each other is summarized in Table 7.

<table>
<thead>
<tr>
<th>Verbal predication</th>
<th>Shared features</th>
<th>Non-verbal predication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjectival stative verbs</td>
<td>Semantics (adjectival)</td>
<td>Adjectival noun</td>
</tr>
<tr>
<td>Category of the predicate (modal and evidential):</td>
<td>Similar suffixes/ Similar functions</td>
<td>Category of the predicate (participle):</td>
</tr>
<tr>
<td>Narrative</td>
<td>( &lt;------- \text{we} -------&gt; )</td>
<td>Past participle</td>
</tr>
<tr>
<td>[Perfect]</td>
<td>( &lt;------- \text{bej} -------&gt; )</td>
<td>Resultative suffix</td>
</tr>
<tr>
<td>[Necessary]</td>
<td>( &lt;------- \omega\text{m}ta -------&gt; )</td>
<td>Future participle</td>
</tr>
<tr>
<td>Similative-evidentials</td>
<td>( &lt;----- \text{PTPC}+\text{r}\text{xa} ----&gt; )</td>
<td>PTCP + simulative</td>
</tr>
</tbody>
</table>

Table 7: Shared features in modal/evidential and stative relation clauses

5.2 The mechanisms of change

In this section I summarize the findings of the Articles 2, 3 and 4 on different mechanisms of change in emergence of new categories on the basis of non-finite forms. Articles 2 and 3 demonstrate that in Tundra Nenets, participles and action nominals take part in grammaticalization processes that produce verbal markers, namely tense-modality-evidentiality suffixes. At the same time, a case-like predicative marker in the language seems to originate from a converb form, as argued in Article 4, pages 15–16. Different grammaticalization paths can be found behind these changes. The main paths of change and the categories they have produced are the following (see Articles 2, 3 and 4):
First, finitization (or verbalization) of participle predicates (investigated in Articles 2 and 3) into verbal predicates is a mechanism that has produced majority of the modal and evidential suffixes in Tundra Nenets, such as the narrative, the necessive and the simitative-evidentials introduced in the previous section (see Article 3, pages 6–14). Reanalysis of participles and other nominalizer suffixes as tense, aspect and modal markers is a tendency attested in also many other languages, for example in Tungusic languages (Malchukov 2013: 188) but also such languages as Tibeto-Burman languages (Yap et al 2011: 33; DeLancey 2011). Especially the emergence of past tense, perfect, evidential and mirative functions on the basis of past participles is a pattern of development attested in several different languages in Eurasia, but also in other parts of the world (Comrie 2000: 3, 6; Bybee et al. 1994: 95).

In Articles 2 and 3 I suggest that the finitization of the participles is based on semantic extension and reanalysis of the non-verbal participial predicates as verbal predicates. In these cases, a participle predicate encoding properties of the subject, for example a current, resultative or prospective state, has been reanalysed as finite predicate that has its scope over the whole clause, in the properties of the whole situation. The same reanalysis can also be demonstrated with the example 30 below. The resultative predicate (‘The reindeer is dead’) extends its semantic function towards the perfect (‘The reindeer has died’), which gives rise to a new category, a reanalysis of the resultative non-verbal predicates as a finite predicate, an evidential suffix, the narrative mood that encodes perfect and indirect evidentiality (see Article 2 (Jalava 2014) and Article 3, pages 6–8).
These two forms that are morphologically similar (we~wī), semantically close (resultative, evidential perfect) and syntactically different (verbal and non-verbal predicate) co-exists in the language in their own functions, and a notable change in form is not required (see Langacker 1977: 58).

Other examples of reanalysis of the non-verbal participial predicates into verbal modal or evidential forms by the same principles illustrated in Table 8 include the development of another resultative suffix, derivational -bej towards a finite suffix encoding perfect (see example 26 in Section 5.1) the development of the necessive forms on the basis of a future participle (examples 25 in Section 5.1), emergence of the similative-evidentials on the basis of simile expressions (examples 28 and 29 in Section 5.1) (see Article 3, pages 10–14). These semantic changes are summarized in Table 9.

<table>
<thead>
<tr>
<th>Participial predicate</th>
<th>Semantic change</th>
<th>Modal/evidential suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Properties of the subject</td>
<td>Properties of the event</td>
</tr>
<tr>
<td>Past participle</td>
<td>Resultative</td>
<td>[Perfect]</td>
</tr>
<tr>
<td></td>
<td>→ Evidential perfect</td>
<td>[Perfect]</td>
</tr>
<tr>
<td>Resultative suffix</td>
<td>Resultative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>→ [Perfect]</td>
<td></td>
</tr>
<tr>
<td>Future participle</td>
<td>Prospective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>→ Necessity</td>
<td></td>
</tr>
<tr>
<td>PTCP +</td>
<td>Similarity</td>
<td></td>
</tr>
<tr>
<td>similative</td>
<td>→ Deduction based on visual evidence</td>
<td>Similative-evidential</td>
</tr>
</tbody>
</table>

Table 9: Semantic changes in development of participial forms into modal and evidential suffixes

Second, insubordination, defined by Evans (2007: 367) is a conventionalized main clause use of an originally subordinate construction. As a diachronic process, insubordination includes ellipsis of the original main clause, and reanalysis of the original subordinate clause as a main clause (Evans 2007: 367, 370). Examples of evidentials emerged by insubordination are found for example in Estonian, Latvian and Lithuanian (Comrie 1981: 153–154; Campbell 1991), Tungusic languages (Malchukov 2013) and Kayardild spoken in Australia (Evans 2007: 399). Insubordination has also been seen as a counterexample to the expected direction of grammaticalization, from
more independent to less independent (cf. lexical item -> suffix), and thus to the unidirectionality hypothesis (Tabor & Traugott 1998: 231, Malchukov 2012: 177–181).

As argued in Article 3, development of the first-hand evidential form in the Samoyedic languages, the so-called auditive evidential, includes different mechanisms of change, such as and suffixation of free lexical items with morphological reduction and insubordination (see Article 3, pages 16–19). The firsthand-evidential suffix -wanon--won has been suggested to originate from a Proto-Samoyedic lexical item mun(?)*mon ‘voice, sound’ (Collinder 1957: 442; Künnap 2002: 149). The whole evidential suffix most likely consists of a verbal noun suffix -ma~wa in the genitive (with the suffix h~n) and the noun *mun/*mon. This noun was probably first modified by the verbal noun form indicating the source of the sound, as illustrated in the constructed Tundra Nenets example (31a). By suffixation of the noun *mon ‘sound’ and the reanalysis of the verbal noun suffix and the noun *mun/*mon suffixed to it, the construction was reduced into the current form as in (31b). (See Article 3, pages 16–19.)

(31a) *jader[-ma-h] mon-ta
walk-NMLZ-GEN sound-3SG.POSS
‘The sound of walking’
>
(31b) jader-mon-ta
walk-AUD-3SG.POSS
‘The sound of her walking was heard’

However, because the firsthand-evidential has properties of a non-finite verb form, usually encountered in subordinate clauses, it can be assumed that it was originally a subordinate clause (as in example 32), from which the main clause was elided (see Article 3, pages 17–18).

(32a) jader[-ma-h] mon-ta [so]
walk-NMLZ-GEN sound-3SG.POSS be.heard
‘The sound of her walking was heard’
>
(32b) jader-mon-ta
walk-AUD-3SG.POSS
‘It was heard that she was walking’

Third, the emergence of the essive-translative suffix in Tundra Nenets is the result of suffixation of a converb form of a copula verb, as argued in Article 4, pages 15–16. The example of the essive-translative, a case-like suffix, demonstrates that not all non-finite forms take part in the grammaticalization processes of modal and evidential suffixes in the same way as participles and verbal nouns, but also very different grammaticalization paths are attested. I have argued (see Article 4, page 15) that the essive-translative suffix -yee originates from the converb form of the verb ‘be’ that has
suffixed to the preceding noun in the essive-translative construction, as illustrated in the constructed Tundra Nenets example (33).

(33a) *səwa ƞæ-ɔ xaʃa
    good be-CNV leave.3SG
    “being good s/he left”
    >

(33b) səwa-ƞæ xaʃa
    good-ESSTR leave.3SG
    ‘(s)he/it became good’

In the standard language, the actual converbal marker -ɔ has reduces from the essive-translative suffix (-ƞæ), but Tereščenko (1973: 280) reports that the form ƞæ-ɔ consisting of the stem of the verb ‘be’ ƞæ- and the converb suffix -ɔ, occurs in the (former) dialectal variation of the essive-translative suffix: -ƞæ-ɔ. -ɔ in attested in the westernmost varieties, and -ƞæ-ɔ in the Taimyrian variety.

Development of a minor case suffix, such as the essive-translative, from a converb form of a copula verb appears to be a relatively rare grammaticalization path attested only in some of the Samoyedic languages (Tereščenko 1973: 280; see also Article 4). In Turkic languages, converb forms of a verb ‘be’ act as secondary predicates in similar constructions than the assumed source construction in Tundra Nenets (Schönig 2008: 332–334; Nevskaya 2008: 284–286). However, I have not found any parallels for the development of suffixation of the converbs producing case suffixes in other languages. Suggested products of grammaticalization of converbal into grammatical markers in other languages are adpositions (such as English during, and concerning deriving from -ing converbs) and applicative markers (such as the applicative isht- deriving from the verb ishi ‘get, take’ used as a same-subject converb in Chickasaw, a Muskogean language spoken in Southeastern United States) (Haspelmath 1995: 38). In Samoyedic languages, an interesting example is found in Kamas, where aspect markers that are suffixed to the finite verbs, have grammaticalized from a combination of a converb marker, originally in the main verb, and an auxiliary ‘lie’ following the main verb (Klumpp 2005: 403).

5.3 (In)finiteness of the non-finites in grammatical change

In this section I discuss the finite features of the Tundra Nenets non-finites, paying special attention to the increasing and reduction of the finite properties in the process of change. In 3.1 it was demonstrated that there are three main types of non-finites in Tundra Nenets: participles, verbal nouns and converbs. On the basis of results presented in Articles 2, 3 and 4 I argue that there are certain tendencies and restriction in the changing potential of these different non-finite verb forms in predicate structures. Thus, the development of non-finite verb forms can be explained on the basis of
language-specific syntactic rules as well as cross-linguistic tendencies of semantic change. I argue that the direction of the grammaticalization processes that the non-finites have taken part in, can be explained with the syntax and functions of the different types of non-finites as well the level of finiteness that they represent.

In Tundra Nenets, participles occupy the same syntactic main positions as adjectives, acting as modifiers in a noun phrase and as main predicates. However, present participles formed of stative verbs with adjectival semantics, such as jepə- ‘(be) hot’ and poride- ‘(be) black’, do not normally appear in the predicate position, but they are conjugated like any finite verbs (as in example 17a in Section 5.1). Participial predicates, like any non-verbal predicates, possess some features characteristic to finite forms, as they agree with the subject without applying copula in affirmative indicative clauses. For tense agreement, it applies mainly for present participles used as actor predicates (as ‘worker’ in example 22), because otherwise participles have their own inner tense reference (past and future participle).

In the emergence of modal and evidential categories, participial predicates maintain their finite features as they preserve their position as main predicates, with the only syntactic difference that the originally participial forms become reanalysed as verbal predicates, which involves verbal negation strategy and conjugation in the subjective and the reflexive conjugation. The semantic change involves extension of the scope from the properties of the subject (e.g. ‘N is dead’, ‘N is the one who needs to go’) into the properties of the event (e.g. ‘N has died’, ‘N needs to go’) (Hengeveld 2011), and from expression of stative relation into expression of modality and evidentiality. The participial-based modal or evidential marker preserves also the original temporal reference of the participle (Jalava 2012, see also Article 3, page 5). Considering that tense (inner tense) and subject agreement are features of both modal/evidential categories and participles, i.e. verbal and non-verbal predicates, and they both can act as main predicates of a clause, these features cannot be regarded as distinctive features of finiteness and non-finiteness.

Furthermore, modality and evidentiality seem to be categories that allow, at least to some extent expressions with non-verbal predicates. Modal and evidential categories that mix verbal and non-verbal predication, are necessive predicates with -wventa (non-verbal) and -bsu (verbal) (examples 25 and 27 in Section 5.1), simulative-evidentials (examples 28 and 29 in Section 5.1) (see Article 3, pages 10–14). In Tundra Nenets agreement with the number of the object (objective conjugation) in addition to modal and evidential function, are rather characteristics of finiteness. Typical to the participial-based modal and evidential categories appears also to be that they are recreated using the same grammaticalization paths, as the older (verbal) neccessive mood -bsu from Proto-Samoyedc participle, and the new non-verbal neccessive predicate -wventa from a newer future participle.

In the examples of grammaticalization investigated in this study, the other groups of non-finites, action nominal and converbs, play role in slightly more complex cases of grammatical change that participles, that in the simplest case are reanalysed as verbal predicates without changes in their form. The grammaticalization of the non-visual first-hand evidential, the auditive in the Northern Samoyedc languages, arguably
includes suffixation of an independent lexical item *mon ‘sound’ to the verbal noun stem (see Article 3, pages 17–19). A construction where a verb form precedes a noun, which probably has been the case before the nouns is suffixed to the verb, is most probably a noun phrase, where the nominalized verb form modifies the noun as a genitive attribute, as ‘The sound of her walking’ in examples 31 and 32 in Section 5.2. In Article 3, I argued that the grammaticalization of the auditive is an example of insubordination, where by ellipsis of the original main verb (as ‘was heard’ on example 32), the original non-finite verb form was reanalysed as the main predicate (see Article 3, page 18).

In this process, the action nominal form is first assumed to have acted as a possessive modifier for the noun ’sound’, with no finite features at all. After the ellipsis of the main predicate and the suffixation of the noun to its modifier, the action nominal suffix (ma-wa) remains as a part of the new reanalysed evidential suffix, where it shows in the variation of the suffix: -wanon~won. In the process, the finite status of the construction (action nominal suffix + noun -> auditive suffix) increases, as it becomes the main predicate. However, the finite status of the auditive is problematic, as it takes the subject agreement suffixes from the possessive paradigm, and thus, it does not use the suffixes of the subjective, objective and reflexive conjugation.

Furthermore, the auditive does not combine with tense, mood or other persons than the third, obviously for pragmatic reasons. It can be understood that in a situation where the speaker expressed her/his direct observation of an event, typically something that s/he hears or smells, the observed event is caused or carried out in the present tense by someone or something outside the situations, encoded by the third person. In any case, even though the auditive is unarguably an evidential form acting as a main predicate, there are good reasons why some descriptions consider it as non-finite (Salminen 1997, 1998). Thus, in this grammaticalization process finiteness of the original construction that includes a non-finite verb form, increases only by the main predicate use.

The third case, suffixation of a converb form of a copula verb into the essive-translative suffix suggested in Article 4, includes the change of a secondary predicate construction (as ‘being good’ in example 33 in Section 5.2) into an essive-translative form that encodes impermanent state of being or change of state, depending on the main predicate (see Article 4, pages 14–16). In this case, like in the first example of participles becoming modal and evidential suffixes, the grammaticalizing non-finite form keeps somewhat the same syntactic function as it had before the grammaticalization. The converb forms in Tundra Nenets act as adverbial modifiers, and the infinitival converb with -š often encodes simultaneity as it was demonstrated in Section 3.1 in the example 8. Additionally, converb forms of adjectival stative verbs are used as adverbs of manner, as in example 34 (see Article 1 (Jalava 2013: 62)).
While the converb form in example 34 encodes information about the manner of the event encoded by the main predicate, the essive-translative form in example 35 is a secondary predicate and encodes information about the subject without being the main predicates of the clause (Himmelmann and Schlutze-Berndt 2005; see also Article 4, pages 17–19).

These functions, manner encoded by the converb form and depictive secondary predication, encoded by the essive-translative minor case are close to each other, and both derive from the basic function of the converb, encoding simultaneity of an event/state expressed with the converb form with the one expressed in the main predicate. Regardless, both the converb form and the essive-translative case lack any finite properties, and thus the finite properties do not change in the grammaticalization process.

It can be concluded that the finite properties of the non-finite verb forms increase in the grammaticalization process if the original source construction already has some finite features, as in the case of participles. Otherwise, the target constructions of the grammaticalization processes investigated, reflect at least to some extent the syntactic positions and for this reason also the finite properties of the source constructions. Table 10 summarized the levels of the source and target construction of the investigated examples of grammaticalization.

<table>
<thead>
<tr>
<th>Level of finiteness</th>
<th>Non-finite verb forms in the source constructions</th>
<th>Targets of the grammaticalization</th>
<th>Level of finiteness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low finiteness</td>
<td>Participle - -&gt;</td>
<td>Modal/evidential suffix</td>
<td>High finiteness</td>
</tr>
<tr>
<td>Zero finiteness</td>
<td>Verbal noun - -&gt;</td>
<td>Firsthand evidential suffix</td>
<td>Very low finiteness</td>
</tr>
<tr>
<td>Zero finiteness</td>
<td>Converb - -&gt;</td>
<td>Case-like suffix (essive-translative)</td>
<td>Zero finiteness</td>
</tr>
</tbody>
</table>

Table 10: Level of finiteness in the source and target constructions in grammaticalization of non-finite verb forms

‘The steamboat moves quickly.’ (T65: 252)

‘Did you work as a translator?’ (NenTay2011_TMP)
Low finiteness of participial predicates refers to the fact that they agree with the subject as main predicates and that they display distinction in tense. Moreover, even before being reanalysed as verbal predicates, they can be used for denoting modal and evidential functions. High finiteness of the modal and evidential suffixes refers to verbal predication with object agreement and a negation strategy without using a copula. For the first-hand evidential suffix, the auditive, grammaticalized from a construction that includes an action nominal, low finiteness refers to the status of the auditive as main predicate lacking tense and mood agreement and the use of verbal subject agreement suffixes. Zero finiteness in case of both the converb and the essive-translative, is evident as they display none of the features usually considered characteristic to finiteness.
6. Conclusion

The present study has examined changes in Tundra Nenets predicate structures using mainly synchronic data analysed in a dynamic approach. The focus of the study has been on non-finite verb forms in grammatical change. It has been argued that in Tundra Nenets members of different word classes have functions that are typically associated with some other word class, for example, that adjectives are divided into stative verbs and adjectival nouns, and, that non-verbal categories, including many non-finite verb form, have many features associated with finiteness. As the functions of the members in these categories are flexible, and many categories, such as adjectives and modal/evidential marking allow using both verbal and non-verbal predication, grammatical change over these predicate types can be expected. Furthermore, it has been argued that investigating synchronic variation in the predicate structures with non-finite verb forms, grammaticalization paths of many modal and evidential categories and a minor case suffix can be detected. Additionally, the results suggest that it is characteristic to predication categories, especially to modal and evidential categories to be recreated several times by the same grammaticalization paths from different participle predicates.

The findings of this study complement earlier research by suggesting mechanisms and paths of gradual change for categories whose origin has been hypothesized in earlier studies. Even though in earlier research etymologies for many suffixes of the studied categories have been suggested (like the origin of many modal and evidential forms in participles (Janhunen 1998: 471), the origin of the auditory evidential in a lexical item *mon ‘sound’ (Collinder 1957: 442; Künnap 2002: 149) and the origin of the essive-translative in a converbal form (Tereščenko 1973: 280)), the actual processes of the changes have never been examined before the current study. Many of the suggested paths of grammaticalization are also supported by the previous literature on grammatical change in other languages, most importantly, in structurally similar languages.

Renewal of finite forms by form of non-finite origin is known to be typical to many Uralic languages and Altaic type of languages with numerous non-finite verb forms and subject agreement for nominal predicates. In this is why new studies, as the current study suggesting concrete paths for the grammatical change, may serve as models to be tested for other language of the similar typological structure. In this way, generalizations not only to explain but also to predict grammatical changes in languages of certain typological predicate structure, can be suggested and further tested with material from other languages. In addition to this, the current study highlights the importance of diachrony in investigation of the notion of finiteness and the character of non-finite verb forms. It argues that the borders of (in)finiteness can be either stable or changing in grammatical change depending on the finite features of the source construction. For Tundra Nenets, many features associated with finiteness are properties of participle predicates. This allows them to be reanalysed as modal and evidential suffixes and to increase their finiteness. Yet, conversbs, with no features
associated with finiteness, take part in completely different grammaticalization processes, and, as has been argued, converb form of a copula verb may grammaticalize into a minor case suffix.

The present study is, in many respects, limited to the initial hypotheses on the emergence of modal categories from participles, as well as to the available data. For this reason, the overall picture of the non-finite verb forms in changes of predicate structures might be participle-centric. Consequently, action nominal and converbs in different grammaticalization processes have a minor role in this study. Possible grammatical changes that involve these non-finite forms, however, would be important to investigate as well.

The results of the study have suggested that from the perspective of finiteness, tense, modality and evidentiality might not be the most characteristic features in Tundra Nenets, and unlike these, the objective conjugation appears to be a property restricted to verbal predicates only. This is why, the origin of the objective conjugation and its relation to the identical possessive suffixes in Tundra Nenets, but also in other Samoyedic languages would be a relevant topic for investigation of the interrelation of finite and non-finite categories in grammatical change. In the current study, other Samoyedic languages are taken into account only to contrast the historically related categories to the one in Tundra Nenets, but for a historical-comparative research concerning the development of non-finite verb form, other Samoyedic languages have not been considered. Another factor that is potentially relevant in research on development of verbal categories is the emergence of tense and aspect marking and the nature of the finite (aorist) stem in Tundra Nenets, but especially if the research was extended to other Samoyedic languages. All these, however, must be left to future research.
Abbreviations

Glosses

1, 2, 3 person of the subject or possessor
1SG>1SG etc. objective conjugation:
number of the object, person and number of the subject
ABL ablative
ACC accusative
AUD auditive
ESSTR essive-translative
CNG connegative
CNV converb
FUT future
GEN genitive
LOC locative
NARR narrative
NEC necessive
NEG negative auxiliary
NMLZ nominalization (action nominal)
OBL obligative
PL plural
POSS possessive
PTCP participle
PST past
PURP purposive converb
RES resultative
SG singular
SIM similative
SIMEV similative-evidential

Sources of the examples

NW = the column Ялумд” from the years 2005–2012 that appears in Няръяна вындер, the local newspaper of the Nenets Autonomous Okrug.
T65 = Tereščenko, N. M. (Н. М. Терещенко) 1965.
References


Tereščenko, N. M. 1956 [Н. М. Терещенко]. Материалы и исследования по языку ненцев. Moscow & Leningrad: Издательство Академии Наук СССР.


Abstract in Finnish

(In)finiittisyyden rajoilla: tundranenetsin predikaattirakenteet muutoksessa


Tutkimus vahvistaa aiemmin esitetyn hypoteesin, jonka mukaan predikaatteina toimivat, subjektin mukaan taipuvat partisiipit voivat kehittyä modaalisiksi ja evidentiaalisiksimuodoiksi, jotka ilmaisevat esimerkiksi puhujan tiedon varmuusastetta ja tietolähettä. Tutkimus osiuttaa kieloxistumispoluit useille partisiipeista kehittyneille modus- ja evidentiaalimuodoille, yhdelle nominista suffiksoituneelle evidentiaalitunnukseelle sekä olla-verbin konverbimuodosta kehittyneelle sijasuffiksiille. Lisäksi tutkimus analysoi aikaisemmin vähemmän tutkittujen kieloxististen kategorioiden syntaksia. Tutkimus osallistuu myös laajempana keskusteluun ei-finiittisten ja finiittisten kategorioiden suhteesta sekä pääsanaluokkien jaosta kielen rakenteiden muutoksessa.
Настоящая диссертация содержит четыре рецензированных статьи и вступительную главу, в которой раскрываются цели, предыстория и результаты исследования. В диссертации рассматриваются вариирование и изменение предикативных конструкций в тундровом диалекте ненецкого языка, который относится к уральской языковой семье и на котором говорят в Сибири. В основе работы лежит изучение понятия финитности, а также исследование нефинитных форм глаголов в изменяющихся со временем грамматических конструкциях. В работе исследуются такие языковые категории, в которых присутствует как глагольная, так и неглагольная предикация или которая возникла в результате грамматикализации нефинитных форм глагола. Темами статей являются разряды прилагательных, модальные и эвиденциальные категории, а также эссивно-транслативные конструкции тундрового диалекта ненецкого языка.

Материал исследования составляют тексты на ненецком языке, представляющие различные жанры и годы издания, а также материалы полевой экспедиции, собранные и записанные на полуострове Таймыр в 2011 году. В работе использован функционально-типологический подход, а метод исследования сочетает синхроническое описание языка и диахроническое объяснение грамматических явлений. Лингвистические процессы анализируются с опорой на конкретные примеры использования языка, а их историческое развитие рассматривается в отношении к вариантам в современном языке и к аналогичным конструктивным и семантическим изменениям в других языках.

Результаты диссертации дополняют осуществленные ранее исследования и предлагают механизмы и пути развития категорий, происхождение которых было гипотетически установлено в предыдущих исследованиях. Результаты работы показывают, что в тундровом диалекте ненецкого языка нефинитные формы глагола могут часто служить в качестве основы модальных и эвиденциальных форм глагола. Кроме того, они так же могут участвовать в процессе грамматикализации именных категорий, что послужило формированию суффикса эссива-транслатива. Помимо этого, в работе дается синтаксический анализ недостаточно изученных грамматических категорий тундрового диалекта ненецкого языка. Диссертация также вносит свой вклад в общелингвистическую дискуссию о финитности и нефинитности, а также в изучение классов частей речи в процессе грамматического изменения языка.