LINGUISTIC DISCOVERY
DARTMOUTH COLLEGE

Volume 9
Issue 1
2011

Parts of Speech in Non-Typical Function: (A)Symmetrical Encoding of Non-Verbal Predicates in Erzya

Rigina Turunen

University of Helsinki

doi: 10.1349/PS1.1537-0852.A.387

url: http://journals.dartmouth.edu/cgi-bin/WebObjects/Journals.woa/1/xmlpage/1/article/387

Linguistic Discovery
Published by the Dartmouth College Library

ISSN 1537-0852
linguistic-discovery.dartmouth.edu

Parts of Speech in Non-Typical Function: (A)Symmetrical Encoding of Non-Verbal Predicates in Erzya

Rigina Turunen

Erzya non-verbal conjugation refers to symmetric paradigms in which non-verbal predicates behave morphosyntactically in a similar way to verbal predicates. Notably, though, non-verbal conjugational paradigms are asymmetric, which is seen as an outcome of paradigmatic neutralisation in less frequent/less typical contexts. For non-verbal predicates it is not obligatory to display the same amount of behavioural potential as it is for verbal predicates, and the lexical class of non-verbal predicate operates in such a way that adjectival predicates are more likely to be conjugated than nominals. Further, besides symmetric paradigms and constructions, in Erzya there are non-verbal predicate constructions which display a more overt structural encoding than do verbal ones, namely, copula constructions. Complexity in the domain of non-verbal predication in Erzya decreases the symmetry of the paradigms. Complexity increases in asymmetric constructions, as well as in paradigmatic neutralisation when non-verbal predicates cannot be inflected in all the tenses and moods occurring in verbal predication. The results would be the reverse if we were to measure complexity in terms of the morphological structure. The asymmetric features in non-verbal predication are motivated language-externally, because non-verbal predicates refer to states and occur less frequently as predicates than verbal categories. The symmetry of the paradigms and constructions is motivated language-internally: a grammatical system with fewer rules is economical.

1. Introduction

In traditional Finno-Ugric linguistics, parts of speech have been defined mainly on a morphological basis. Consequently, conjugated nouns in the Mordvinic languages, as well as other non-verbal categories such as adjectives and locatives, are regarded as exceptional, and even presented as one argument in support of the assertion that there was no N/V distinction in Proto-Uralic (for a discussion see e.g. Laakso 1990; 1997; Pajunen 1998a). This study will propose a new viewpoint for consideration in the discussion on the "peculiar" conjugated non-verbal parts of speech found in the Mordvinic languages, focusing on Erzya Mordvin.

Conjugation of non-verbal predicates produces constructions similar to verbal predicate constructions. The similarity of conjugated verbal and non-verbal predicates is illustrated in example (1). The nominal predicate *jalgatano* and the verbal predicate *kundśet'ano* are both inflected in the present tense of the first person plural.

(1) *T'eťa-t-kak* *soda-sa:* *jalga-tano,* *vej-se* *kal-t* *kund-śe-t'ano*.
father-2SG-ENCL know-1SG/3SG friend-1PL one-INE fish-PL catch-FREQ-1PL
'I know your father, too: we are friends, we fish together.' (Syatko 2003: 8)

One aim of this study is to show that symmetric non-verbal predicate constructions are not exceptional, but are just as motivated as the asymmetric. However, it should be observed that in the world's languages as a whole, structural differences leading to asymmetry between verbal and non-verbal predicate constructions are more often attested than structural similarities (see e.g.

data from Stassen 1997, Hengeveld, 1992, Payne 1997). This study also aims to show what motivates asymmetric paradigms and constructions, using examples from Erzya.

This paper explains and describes the patterns of Erzya, and as such, it concentrates on theoretical and methodological problems. Even though the present treatise has been inspired by the morphosyntactic characteristics of only one language, the theoretical background provides interesting viewpoints for a the description of the predication patterns in most other languages, especially if a language displays more than one pattern. Previous knowledge of Erzya or other Uralic languages is not expected, and thus the article may also be of interest to general linguists.

I shall first focus on theoretical-methodological questions, concentrating on the parts of speech and their prototypical functions. The theory of (a)symmetry as developed by Matti Miestamo (2003, 2005, 2007) offers the main tool for my description of Erzya, which appears in the second part of the paper.[1] Although Miestamo applies his theory to describe and explain (a)symmetry in negation, the present treatise shows that the distinctions between verbal and non-verbal paradigms and constructions can also be described in terms of the theoretical tool of (a)symmetry. The following general questions are answered:

> How should parts of speech be defined in the case of Erzya?
> Why are non-verbal and verbal predicates often not encoded similarly?
> What should we do with conjugated non-verbal predicates?
> Why are non-verbal predicates often accompanied by a copula?
> Could non-verbal predication patterns be described in terms of (a)symmetry?

As far as the empirical part concentrating on Erzya is concerned, this study aims to answer the questions posed below. In the last part of the study the affects of (a)symmetry on complexity are considered and explanations for (a)symmetry are sought.

> How (a)symmetrical are Erzya verbal and non-verbal predicate constructions?
> How does (a)symmetry affect the complexity of the functional domain of predication in Erzya?
> How can the (a)symmetries be explained in terms of external motivation?

For this analysis of Erzya, data from about 5000 non-verbal predicate constructions were collected and analysed by the author. These data consist of written Standard Erzya, written folklore, recorded conversations and data received from questionnaires. I also consulted native Erzya speakers. As the present study concentrates on theoretical questions, those interested in obtaining more data should consult Turunen (2009: 257–259 and 2010).

2. Definitions of Parts of Speech and Typological Markedness

For the purposes of the present study, it is essential to properly define the parts of speech. As Langacker (1987: 2) has put it, every linguist relies on such concepts as *verb* and *noun*, but few if any are prepared to define them in an adequate and explicit way. Besides the two universal lexical classes of verb and noun, in many languages two other major lexical classes can also be

[1] I wish to thank Matti Miestamo for his comments on an earlier version of this paper.

identified, those of *adjective* and *adverb* (e.g. Givón 1984: 51). This paper focuses on the distinctions between verbs and other, non-verbal parts of speech.

The criteria for defining the parts of speech categories have shifted in Western grammatical tradition in accordance with trends in linguistic thought as a whole. There is an ongoing debate on whether parts of speech should be defined purely on morphological and distributional criteria or on a notional basis concentrating on prototypes and discourse functions. (For a discussion see Hopper and Thompson 1984: 703; 1985.) On the one hand, Sasse (2001: 500) in speaking on behalf of formal criteria states that partial formal coincidence is not in itself indicative but it is the total sum of formal properties that defines a given word class. (See also e.g. Newmeyer 2007; Schachter 1985: 3; Anderson 2003: 188–199.) On the other hand, there is an increasing interest in defining parts of speech on a semantic basis. Roughly speaking, according to semantic criteria, nouns denote objects (persons, things, places), adjectives denote properties and verbs denote actions. Typologists suggest though, that there are no cross-linguistic lexical categories such as verb, noun or adjective. Instead, there are *universal semantic prototypes* of nouns, verbs and adjectives, and *language specific categories* of Noun, Verb and Adjective. (Dryer 1997; Croft 2001: 32–34; 2006: 184–185; Haspelmath 1993, 2007, 2008+).

In order for universal semantic prototypes or *comparative concepts* (a term proposed by Haspelmath (1997:9)) and language specific categories to be differentiated, comparative concepts should be written in small letters, and language specific descriptive categories should be capitalised (e.g. Croft 2001: 50–51, Haspelmath 1993). Comparative concepts are mixed *functional-formal* definitions, which are reminiscent of or even similar to the definitions of the traditional semantic class analysis of parts of speech. Following these definitions, Haspelmath (2008+) suggests that, for example, a *comparative concept of adjective* would be something like 'An adjective is a lexeme that denotes a descriptive property and that can be used to modify a noun.' As there are no cross-linguistic categories, lexical classes are defined language specifically. Language specific classes do not automatically (if at all) correspond to the lexical classes of some other language. Importantly, although in some languages property concepts are expressed by Verbs, these languages still have elements that are identifiable as adjectives for the purposes of cross-linguistic comparison. Each language has its own categories: a Verb (=descriptive category) may be an adjective (=comparative concept). In Erzya, property concepts are usually expressed by Adjectives, objects by Nouns and actions by Verbs.

The term *non-verbal predicate* should be understood as a comparative concept, defined in this way: a predicate is that which predicates something other than an action or event. The term *non-verbal* does not refer to the presence or absence of formal elements such as copulas or inflection and the term is identical to terms such as *non-event* or *non-action predicate*. Consequently, the term *verbal clause* corresponds to Esa Itkonen's (2001: 204–210) *action clause.* Hamari (2007) has applied the term *stative relation clause* to refer to those clauses which have non-action predicates. Nevertheless, in this study I have followed the mainstream of cross-linguistic studies (Stassen 1997, Hengeveld 1992, Eriksen 2006) and used the generally applied term *non-verbal predicate.*

In Erzya, the lexical classes of Verbs, Nouns and Adjectives can be identified (see e.g. Raun 1988: 100, 103). There are also minor classes such as those of Pronouns and Quantifiers. As the Erzya lexical classes correspond in the main to the comparative concepts of parts of speech, and the present paper focuses on only one language, constructions are referred to with labels written in lowercase letters. These constructions, in which Erzya nouns, adjectives or any other categories that are not verbs, occur as predicates, are referred to collectively as *Erzya non-verbal*

predicate constructions, as opposed to *Erzya verbal predicate constructions*. In the present paper, Erzya locational predicate constructions are also regarded as separate constructions, although it is possible that non-verbal predicate constructions should also be defined in a more fine-graded manner, namely, Erzya pronominal and quantifier predicate constructions may have some of their own specific characteristics as well.

The non-verbal predicates of the world's languages are often encoded in a different manner to verbal predicates. This phenomenon has been explained by Croft (2006: 184–185) who connects the *semantic criteria* for parts of speech to *propositional act functions.* Three *typological prototypes* can be established, which correspond to the traditional parts of speech noun, verb and adjective. The typological prototypes are i. nouns, which prototypically refer to objects and are unmarked in the reference function, ii. adjectives, which typically denote properties and are unmarked in modification and iii. verbs, which prototypically denote actions and are unmarked in predication, as illustrated in table 1.

	Reference	**Modification**	**Predication**
Objects	UNMARKED NOUNS	genitive, adjectivalisations	predicate nominals
		Pps on nouns	copulas
Properties	deadjectival Nouns	UNMARKED ADJECTIVES	predicate adjectives
			copulas
Actions	action nominals	participles	UNMARKED VERBS
	complements	relative clauses	
	Infinitives		
	Gerunds		

Table 1: Overtly marked structural coding constructions for parts of speech (Croft 2006: 185).

Table 1 also illustrates that the typological prototypes used in a function other than a prototypical one (a *non-prototypical* combination of semantic class and propositional act) may lead to overt structural coding. One type of non-typical combination of a semantic class and propositional act occurs when the non-verbal parts of speech function as predicates. When object-denoting words, nouns, which more often have a pragmatic function of reference, are used in the pragmatic function of predication, more structural coding or function indicating morphosyntax (such as copulas) is needed, while action-denoting words, verbs, which are more often used in the pragmatic function of predication do not need such overt morphosyntactic encoding. The situation is similar with words denoting properties, adjectives and words denoting location, the locative.

The *typological markedness* (Greenberg 1966) pattern actually implies that languages may exist that use zero coding to indicate the typologically marked combinations of semantic class and propositional act. Zero encoding is, indeed, in the domain of non-verbal predication the most general pattern in the **present tense** cross-linguistically (Payne 1997: 114). The criteria for defining typological markedness are the following. *Structural coding* compares the number of morphemes used to encode the function in question by construction. According to structural criteria (overt coding criterion), the marked category is expressed by at least as many morphemes as the unmarked one. There are two *behavioural potential* criteria: the *inflectional potential* compares the presence of grammatical distinctions by means of inflectional morphology or periphrastic constructions. An unmarked member of the category has to display at least as wide a range of grammatical behaviour patterns as the marked member, that is, at least as many

grammatical distinctions can be made in connection with the unmarked category as can be made for the marked one. The *distributional potential* of the unmarked category is at least as high as that of the marked one. And finally, according to the *frequency criterion*, the unmarked category occurs at least as frequently as the marked one. (Croft 2006: 66, 185–186.) Haspelmath (2002: 238; 2006: 20, 25, 33) actually states, that in many cases, *frequency asymmetry* leads to a direct explanation for observed structural asymmetries. Thus, he suggests, text frequency is not a criterion for markedness, but the explanatory factor.

According to Croft's (ibid.) structural coding criteria, if overt structural coding is needed in predication, the non-prototypical members (that is, non-verbal predicates) always display at least as much overt structural coding as prototypical members (that is, verbal predicates). Thus, it can be predicted that there are no languages in which words denoting actions require a derivational affix in order to be predicated, but words denoting objects and properties do not. In other words, even though words denoting something other than actions are likely to have an overt function indicating morphosyntax in the propositional act of predication, there are languages in which no such overt encoding is needed. It is noteworthy, that the model allows for the existence of languages that use zero coding to indicate typologically marked combinations of semantic class and propositional act, such as nouns, adjectives and locatives in predication. Typologically marked members may have the same inflectional possibilities as unmarked members. The relevant behavioural potential criteria for predication are the inflectional categories of tense, aspect, mood and person indexation. Consequently, if verbal predicates are inflected in person and tense, according to the behavioural potential criteria non-verbal predicates may be inflected as well.

Further, in Erzya, non-verbal categories may be conjugated, although there are constraints compared to the conjugation of Erzya verbs. One of the aims of this study is to illustrate how the typological markedness of nouns, adjectives and locatives in the predicative function often leads to asymmetric encoding compared to the encoding of verbs in the function of predication. The (a)symmetry observed in Erzya is here documented on the basis of a large quantity of empirical data, and thus the results differ to some extent from those suggested previously in a comparative cross-linguistic study by Stassen (1997: 39, 77, 289–291, see for a discussion Turunen (2009: 306–307).

3. The Conceptual Space of Predication

In typological linguistics, *conceptual spaces* and *semantic maps* are often used to chart a universally valid semantic or cognitive space which represents the semantic relationships between conceptual meanings. The conceptual space model makes it possible to relate functional categories—propositional act function and semantic class—to their syntactic expression within a particular language. Croft (2006: 133–134) separates the *cognitive* from the *semantic map*, even though the two different terms are often used to refer to similar models. The cognitive map is universal: it gives structure to the underlying diagram itself, and it can be distinguished from the semantic map, which is language specific and represents the distribution of the particular construction as a bounded region on the diagram.

Table 2 illustrates the conceptual space of predication. The vertical dimension of the conceptual space for parts of speech includes the semantic classes of objects (nouns), properties (adjectives) and actions (verbs), and the horizontal one the propositional act function of predication. The verbs are prototypically and most frequently predicates. In non-verbal

predications, the part of speech does not function in its prototypical domain, which often leads either to a lack of behavioural potential or the application of a more structural coding. The other propositional act functions of reference and modification are not included in table 2. I have glossed the domain of non-typical predication. In this domain identity predication is connected to object predication, although separate, as suggested by Stassen (1997: 580–581). He claims that even though in statements of both kinds the predicate refers to an object, in identity statements no predication is actually made. In identity statements, the predicate is referential, and the clauses are omnitemporal (Stassen 1997: 102–105; Hopper & Thompson 1984: 726, 729). Behind the structure of the conceptual space of intransitive predication is a factor known as time stability (Stassen 1997: 577–581). The original *Time stabilty scale* of Givón (1984: 64, 87) predicts that nouns tend to encode more time-stable states and verbs tend to encode less time-stable experiences, primarily transitory states, events or actions. Adjectives are less time stable than nouns, but more time stable than verbs, due to which they are situated between the two, as also in the model provided in Hengeveld (1992) (for adjectival predicates in more detail see Wetzer (1996)). Stassen (1997: 580–581) suggests that the encoding of locational predicates is related to the encoding of adjectives. Even though locational predication does not differ in regard to time stability from verbal predication, it does differ insofar as locatives predicate position in real, physical space.

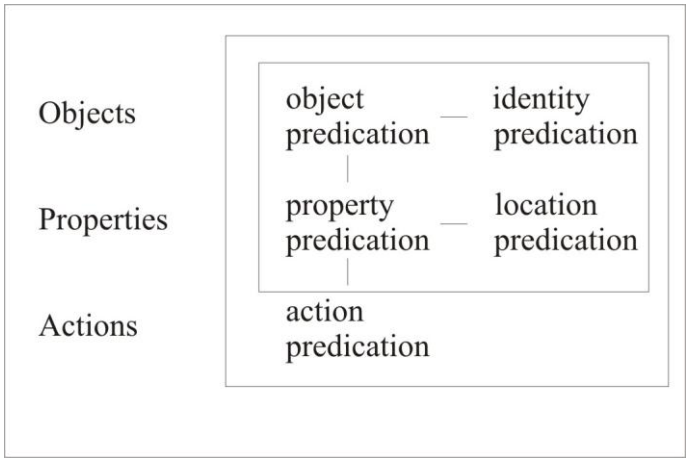

Table 2: Conceptual space for parts of speech in predication (Croft 2006: 187, see also Stassen 1997: 580–581).

4. The Semantic Map of Erzya Intransitive Predication

Conceptual space gives structure to the functional domain of predication. The semantic map in figure 1 is language specific and illustrates the Erzya predication patterns with both constructions of structural coding and behavioural potential. This semantic map of Erzya intransitive predication is a revised version of that presented in Turunen (2009: 297–298). As illustrated in table 3, the non-Verbal predicates of Erzya differ from each other in regard to their behavioural potential in predication (for details see Turunen (ibid.) and 2010). Erzya Verbal predicates are always inflected in the person, but the frequency and obligatoriness of using person and tense inflection depends on the non-verbal part of speech. Even if all of these can be conjugated, person and tense inflection decreases when moving from left to right on the scale verbs – adjectives – nouns. The Erzya examples (1–5) below exemplify constructions with verbal, nominal, adjectival and locational predicates.

The Erzya semantic map should be understood as follows. Firstly, present and past tense maps must be separated. In the present tense, the lexical class of the predicate affects the choice of predication strategy. Class membership and identity statements, both of which have nouns as their predicates, behave in different manners. Zero coding, that is, lack of inflectional potential as well as structural coding, is typical of identity statements. In nominal predicate constructions, which denote class membership, zero encoding occurs as a general strategy in addition to conjugated nouns. Zero encoding is less typical of adjectival and locational predicates, and there are speakers who would not use zero coding to denote property or locational predication. However, as noted in Turunen (2009: 297), in Erzya idiolectical differences are considerable, as are differences between genres. Past tense constructions differ in the sense that I have not observed differences between the non-verbal categories. All non-verbal predicates can either be conjugated in the 2nd past tense (II preterit) or alternatively, the predication can be made with an inflecting copula.

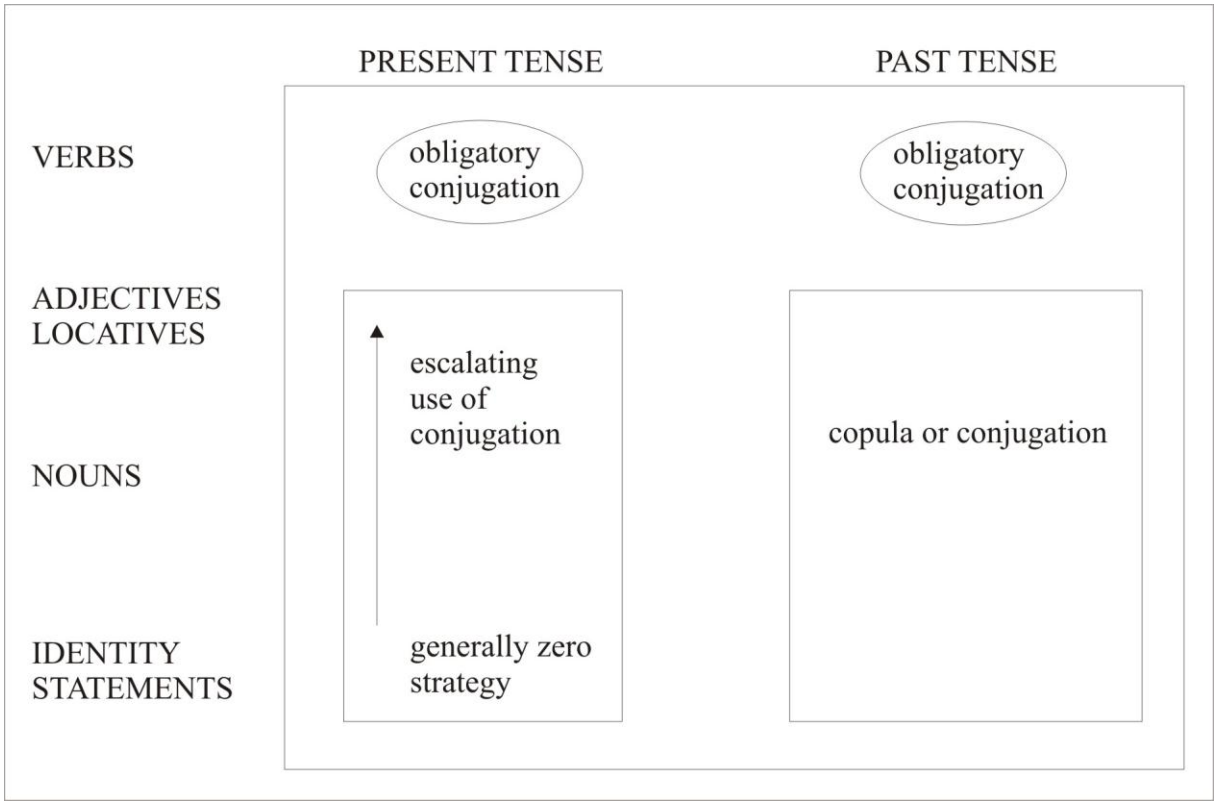

Figure 1: Erzya encoding of intransitive predication, behavioural potential and structural coding.

As the criteria for behavioural potential and overt structural encoding make clear (presented above), the typologically marked classes (non-verbal categories) do not display more behavioural potential than the unmarked class (verb). Erzya non-verbal predicates may display the same amount of behavioural potential (inflectional person and tense marking) as verbal predicates. Verbal predicates are obligatorily, but non-verbal predicates only optionally, conjugated. Further, these criteria allow for the marked members to display as much—or as little—structural encoding as the unmarked members. In Erzya, unmarked members, verbs, do not display more overt structural encoding than marked members. Supplementary structural encoding, namely copulas, is applied only in non-verbal predication.

Examples (1–5) illustrate the encoding of Erzya intransitive predicates. Example (2) is a clause with the verb *kišťado* which is conjugated in the present tense, and conjugation is the only predication strategy for verbal predicates. Example (3) predicates a property, and the adjective *siŕan* is conjugated in the present tense with a similar person marker to the first person singular that is employed in verbal predication. A locational expression *ťeseťano*, a pronoun inflected in the inessive, is conjugated in the first person plural in example (4). The adjectives and locatives are conjugated rather than zero coded in the present tense, although in the vernacular and translations, zero coding does generally occur. The uninflected noun *pisaťeľ* occurs as the predicate in class-membership predication, and is illustrated in example (5) in which the occupation of the subject is expressed. The noun could have been conjugated in the second person singular as well. As illustrated in example (6), identificational statements have definite nouns as their predicates. The predicate *seŕeďićaťńe*, which is a present tense participle, can not be conjugated because of the definite marking.

Action, verb as predicate

(2) *Tiń kiš-ťado?*
you[2PL] dance-2PL
'Do you dance?' (Paltin & al. 1997: 11)

Property concept, adjective as predicate

(3) *Mon Ńikita-do kavto ije-de siŕ-an.*
I Nyikita-ABL Two year-ABL old-1SG
'I am two years older than Nyikita.' (Syatko 2003: 3)

Location, inflected noun, postposition or adverb of location as predicate

(4) *T'e-se-ťano! T'e-se-ťano!*
this-INE-1PL this- INE -1 PL
'We are here! We are here!' (Syatko 2003: 7)

Class membership, non-referential noun as predicate

(5) *Aŕś-i-ńek, ton pisaťeľ.*
think-1PST-1PL you author
'We thought you are an author.' (Syatko 2003: 2)

Identificational: referential noun as predicate

(6) *... a son meŕ-ś, keľa, seŕeď-ića-ť-ńe – miń.*
but (s)he say-PST.3SG namely ill-PTCP-PL-DEF we
'But (s)he said, that's what they say, that we are the sick ones.' (Paltin & al. 1997: 11)

The strategies for encoding predication in the past tense are either involve the conjugation of the predicate (obligatory for verbs and optional for non-verbal categories) or alternatively, employment of the copula verb in non-verbal predication. The conjugation and copula patterns are in free variation in non-verbal predication. Example (7a) illustrates an adjective *beŕańeľ* conjugated in the second past tense, and example (7b) a nominal predicate clause in which the semantic predicate is the noun *bojar* and predication is made with the *uľńems* copula 'be'.

(7) a. *Ćora-ś* *son* a *beŕań-eľ.*
man-DEF (s)he NEG bad-2 PST.3SG

b. *Ikeľe* *uľ-ńe-ś* *paro* *bojar!*
before be-FREQ-1PST.3SG good boyar
'He wasn't a bad man. Earlier he was a good boyar!' (Syatko 2003: 4)

5. Complementary Expected Association between Pragmatic Function and Semantic Class

Even though Haspelmath (2006) is critical of using markedness as an explanatory tool, similar to Croft's theory, Haspelmath (2008: 186, 191) explains the morphosyntactic behaviour of parts of speech by virtue of the fact that specific parts of speech are associated with specific functions. Overt function-indicating morphosyntax, such as copulas and nominalisers, tends to occur with the less preferred associations between semantic class (action/thing) and pragmatic function (reference/predication). Object-words hardly ever require a nominaliser and action-words rarely require an overt copula. Haspelmath uses the term *universal asymmetric pattern* to refer to situations in which one class of expressions behaves differently from another class for no apparent semantic reason. In these cases symmetry is expected. The concept of *complementary expected association* explains the asymmetric patterns found again and again in the languages of the world.

One case is the cross-linguistically common asymmetric encoding of nominal predication (Haspelmath 2008: 197). In principle, I think the other non-verbal parts of speech could be included as well, even though cross-linguistically adjectives do not display asymmetry so clearly, but take a middle ground between nouns and verbs (see e.g. Stassen 1997: 580–581). The following table 4 adopted from Haspelmath (2008: 197) and restructured to correspond to Erzya, illustrates thing/object denoting words (nouns) that more often have a pragmatic function of reference, and action denoting words (verbs) that more often and more typically have a pragmatic function of predication (see above Croft; Hopper & Thompson 1984). In other words, referring is associated with nouns and predication is associated with verbs, as illustrated in table 4 in which the noun *azor* 'landlord' refers to a thing (person), and the verb *jarsan* 'I eat' predicates an action. As the table shows, it is possible to refer with verb-based expressions, for example, nominalisations such as *jarsamo* 'eating' in which case a nominaliser is required. Further, as this study shows, on the whole it is also possible to predicate nouns. On the basis of the cross-linguistic data, the expected situation would be that when object-denoting words are employed in predication, a copula is required. In figure 2 the Erzya Noun *azoran* is, however, conjugated without any copulative items.

	Pragmatic function	
	Reference	**Predication**
Thing	*azor-Ø* landlord	*azor-an* landlord-1SG
Semantic class	(no nominaliser)	(no copula)
Action	*jarsa-mo* eat-INF	*jarsa-n* eat-1SG
	(nominaliser)	(no copula)

Figure 2: Pragmatic function and semantic class as complementary expected associations. Adapted on the basis of Haspelmath (2008: 197).

In generative theory the issue of lexical categories has not received much attention with the exception of Baker's (2003) work. Baker claims that semantic definitions are vague, but agrees with many functionalists in that nouns are inherently suited to referring and verbs are inherently predicative. Baker defines verbs as lexical categories that take a specifier, and nouns as bearers of a referential index. The third lexical category, adjectives, is distinguished negatively, having neither of these characteristics (Baker 2003: 15, 21). Baker (2003: 30) argues that nouns and adjectives are never predicates in and of themselves and can only count as predicates in a derivative sense. Further, he argues that there is a silent functional category Pred in structures such as those found in Erzya, in which nominal and adjectival predicates are (at least partly) indistinguishable from verbs. As this paper aims to show, the nouns, adjectives and locationals in Erzya are distinguishable from verbs in predicate position, and there is no need to refer to (null) functional heads. Moreover, Baker does not take into consideration paradigmatic asymmetry, even though he does draw attention to asymmetrical devices of nouns and adjectives in derivation (Baker 2003: 159–162).

It is notable that the concept of complementary expected associations focuses on the occurrence of overt structural coding (copulas and nominalisers), but it does not take into account the behavioural potential. The behavioural potential of Erzya non-Verbal predicates—conjugation—applies to symmetric predication patterns. As the table shows, contrary to cross-linguistically expected asymmetry, Erzya Nouns display symmetric encoding with Erzya Verbs. However, this is a restricted phenomenon, as symmetry occurs only in some paradigms. Thus, table 4 does not provide a complete picture of the (a)symmetry observed in Erzya non-verbal predication. This will be accomplished in what follows, in which Erzya non-verbal predication patterns will be discussed thoroughly from the viewpoint of (a)symmetry.

6. Erzya Predication Patterns from the Point of View of (A)Symmetry

The notion of (a)symmetry is used in many connections in linguistics, such as the *(a)symmetry between form and meaning* (e.g. Zwanenburg 2000) or *conceptual (a)symmetry* (Haiman 1985: 73–74). In the present treatise, a theoretical tool of (a)symmetry will be used to describe the structural differences between marked and unmarked categories. This theory was developed by Miestamo (2003, 2005) to describe negative vs. affirmative constructions in the world's

languages. Miestamo (2007) suggests, however, that his theory is appropriate for the description of other domains as well, for example, interrogative vs. declarative clauses.

In the following, it is shown that the differences between verbal and non-verbal parts of speech in the function of predication would be appropriately discussed in terms of (a)symmetry. It was illustrated above that in the functional domain of predication verbs are typologically unmarked and non-verbal parts of speech are marked. To inspect (a)symmetry, a reference point is provided by that category identifiable as the unmarked counterpart, in this case Erzya verbs, of the category being studied, Erzya non-verbal categories. Even though this discussion concentrates on describing and explaining Erzya patterns, cross-linguistic data could just as well have been chosen.

Following Miestamo's (2007: 295–298) definitions of (a)symmetry, a division is made between *constructions* on the one hand, and *paradigms* on the other. Non-verbal predicate constructions can be divided into symmetric and asymmetric according to whether or not the structure of the construction differs from that of a verbal predicate construction. In symmetric non-verbal predicate constructions, there are no structural differences compared to corresponding verbal predicate constructions. Respectively, in asymmetric non-verbal predicate constructions additional structural differences can be found. In practice, this means that those non-verbal predicate constructions in which there is no more structural encoding than in verbal ones, are symmetric: if the non-verbal predicate construction includes a copula, constructional asymmetry arises. Nevertheless, the present paper is more concerned with paradigmatic (a)symmetry. I shall start with a description of symmetric paradigms. Paradigmatic asymmetry is usually the result of the neutralisation of grammatical distinctions. As illustrated below, this also happens in Erzya non-verbal predication.

6.1 Symmetric paradigms of the present tense

Erzya non-verbal predicates can be inflected in the present tense like Erzya intransitive verbal predicates. The verbal and non-verbal conjugational paradigms are identical regardless of the part of speech of the predicate, as illustrated in table 3. There is, however, one exception, the third person singular. Non-verbal predicates in the third person singular do not have an overt person marker, but the third person of the present tense has a person marker (*mor-**i***) in verbal inflection. It is typical of Uralic languages that third person forms are often diachronically nominalised verb forms, and in the case of Erzya diachronically the morpheme occurring in the third person is not a person marker, but a suffix of the present tense participle (e.g. Bartens 1999: 123, 125). Nevertheless, synchronically third person forms have a person marker in verbal, but not non-verbal, conjugation.

	Noun ‘man’	**Adjective** ‘beautiful’	**Locative** ‘at home’	**Verb** ‘sing’
1SG	*ćora-n*	*mazij-an*	*kudo-sa-n*	*mora-n*
2SG	*ćora-t*	*mazij-at*	*kudo-sa-t*	*mora-t*
3SG	*ćora*	*mazij*	*kudo-so*	*mor-i*
1PL	*ćora-tano*	*mazij-tano*	*kudo-so-tano*	*mora-tano*
2PL	*ćora-tado*	*mazij-tado*	*kudo-so-tado*	*mora-tado*
3PL	*ćora-t*	*mazij-t*	*kudo-so-t*	*mor-it*

Table 3: The symmetric paradigms of non-verbal and verbal predicates, present tense.

The clauses in examples (8–10) illustrate symmetric encoding in the present tense. Example (8) contains two predicates, the nominal *ćorat* and verbal *śimat*, both conjugated in the second person singular present tense. Example (9) has an adjectival predicate *pŕevejat* which is also conjugated in the second person singular. Example (10) illustrates the encoding of a locational predicate, the locative *źepseť* being inflected in the third person plural. As with verbal conjugation, the third person plural marker is identical to the general suffix of plurality.

SYMMETRIC ENCODING OF NON-VERBAL PREDICATES: CONJUGATION

Nominal predicate and Verbal predicate

(8) *Isťamo šumbra ćora-t di a śim-at.*
such wealthy man-2SG and NEG drink-2SG
‘You are such a wealthy man and you don’t drink.’ (Syatko 2003: 4)

Adjectival predicate

(9) *Ton, Ťešť-ińe pŕev-ej-at, pŕa-t iľa makso eŕva-ńeń.*
You star-DEM mind-ADJ-2SG head-2SG NEG give everyone-ALL
‘You, Little Star, are clever, don’t subject yourself to everyone!’ (Syatko 2003: 10)

Locational predicate

(10) *Kl'uč-ť-ńe ťeťa-ń ponks źep-se-ť.*
key-PL-DEF father-GEN trousers pocket-INE-3PL
‘The keys are in father’s trouser pocket.’ (Syatko 2003: 10)

6.2 Optional asymmetric present tense paradigms

The semantic map of Erzya (figure 1) predicts that symmetrical encoding of non-verbal predicates in the present tense is only optional. Non-verbal predicate constructions also allow asymmetric encoding, in which case the behavioural potential of person and tense inflection may be abandoned in favour of analytic constructions. Consequently, in non-verbal predicate constructions the subject and predicate may be simply juxtaposed, the behavioural potential of verbs may not be displayed and overt structural encoding may not be needed. If the subject is in the plural, the non-verbal predicate agrees in number with it despite locational predicates, which do not display agreement in number (Turunen 2006: 179, more detail forthcoming in a).

	Noun ‘man’	**Adjective** ‘beautiful’	**Locative** ‘at home’	**Verb** ‘sing’
1SG	*mon ćora*	*mon mazij*	*mon kudo-so*	*mora-n*
2SG	*ton ćora*	*ton mazij*	*ton kudo-so*	*mora-t*
3SG	*son ćora*	*son mazij*	*son kudo-so*	*mor-i*
1PL	*miń ćora-t*	*miń mazij-t*	*miń kudo-so*	*mora-tano*
2PL	*tiń ćora-t*	*tiń mazij-t*	*tiń kudo-so*	*mora-tado*
3PL	*siń ćora-t*	*siń mazij-t*	*siń kudo-so*	*mor-it*

Table 4: Asymmetric paradigms of non-verbal predicates. No person inflection in present tense.

When comparing tables 3 and 4 it will be observed that the two types of non-verbal predicate construction—with and without person markers—differ only with regard to the amount of behavioural potential. There are no semantic differences between analytic asymmetric and synthetic symmetric constructions: in asymmetric constructions, the subject is single marked with a free subject pronoun (or unmarked in the third person), in symmetric ones the subject is either double marked with a free pronoun in the 1st and 2nd person, or single marked with a bound person form.

Examples (11–13) illustrate the asymmetric encoding of non-verbal predication. In example (11) the adjectival predicate *ašot* agrees in number but not in person with the subject of the first person plural. A symmetric pattern is possible, in which case the conjugated form *ašotano* would be used. The locational predicates do not agree in number, which is illustrated in example (12) with the second person plural subject and the predicate *školaso* inflected in the inessive. The locational expression could be conjugated in the second person plural (*školasotado*). In example (13) the nominal predicate *ťeťavtomo* is inflected in the caritive. The caritive suffix prevents number agreement, but person inflection is possible (*ťeťavtomotano*).

ASYMMETRIC NON-VERBAL PREDICATE CONSTRUCTIONS: NO INFLECTIONAL POTENTIAL

Adjectival predicate

(11) *Siń raužo-t, a miń ašo-t.*
they black-PL but we white-PL
‘They are dark, but we are blond.’ (spoken data, M. J.)

Locational predicate

(12) *Tiń me-ks avol′ škola-so?*
you[2PL] what-TRA NEG school-INE
‘Why are you not at school?’ (questionnaires)

Nominal predicate

(13) *Ikel'e miń kem-i-ńek ťe-ť, Ńej miń duhovnoj ťeťa-vtomo.*
before we believe-1PST-1PL to-2SG now we spiritual father-CAR
‘Earlier we believed in you. Now we are without a spiritual father’. (Doronin 1996: 417)

6.3 Symmetric paradigms in the 2nd past tense

Even in languages which do mark oppositions such as person on non-verbal predicates, marked oppositions tend to be a highly reduced set compared to the temporal oppositions indicated on prototypical verbs (Hopper & Thompson 1984: 727). However, Erzya non-verbal predication is typologically interesting, in that not only the inflectional subject but also tense may be marked. Non-verbal and verbal predicates have identical paradigms in the 2nd past tense, as illustrated in table 5.

	Noun ‘man’	**Adjective** ‘beautiful’	**Locative** ‘at home’	**Verb** ‘sing’
1SG	*ćora-ľ-iń*	*mazij-ľ-iń*	*kudo-so-ľ-iń*	*mor-iľ-iń*
2SG	*ćora-ľ-iť*	*mazij-ľ-iť*	*kudo-so-ľ-iť*	*mor-iľ-iť*
3SG	*ćora-ľ*	*mazij-ľ*	*kudo-so-ľ*	*mor-iľ*
1PL	*ćora-ľ-ińek*	*mazij-ľ-ińek*	*kudo-so-ľ-ińek*	*mor-iľ-ińek*
2PL	*ćora-ľ-iďe*	*mazij-ľ-iďe*	*kudo-so-ľ-iďe*	*mor-iľ-iďe*
3PL	*ćora-ľ-ť*	*mazij-ľ-ť*	*kudo-so-ľ-ť*	*mor-iľ-ť*

Table 5: Erzya symmetric 2nd past tense non-verbal and verbal predicate constructions

Even though the constructions are morphologically symmetric, 2nd past tense forms for verbal and non-verbal predicates differ semantically. Verbal predicates are inflected in the 2nd past tense to encode usual actions, as illustrated in example (14) or continuous actions which precede some other action, such as shown in example (15) (Cygankin et al. 2000: 163). In contrast, this opposition is neutralised in the case of non-verbal predicates, which cannot be inflected in the 1st past tense. In the absence of a contrast it is misleading to speak of non-verbal predicates as being in the second past tense, as there is no 1st – 2nd past tense opposition (see e.g. Croft 2001: 76.) The non-verbal predicates in Erzya do not have aspectual difference, even though this opposition exists in verbal predication. Verbs may encode dynamic processes as well as states, but non-verbal predicates encode only states.

The following examples (14–18) illustrate symmetric past tense non-verbal predication. In examples (14) and (15) the verbal predicates are inflected in the 2nd past tense. All non-verbal predicates in examples (16–18) are inflected in the 3rd person singular past tense. Example (16) contains an adjectival predicate *čavoľ*, example (17), a locational predicate *tosoľ*, which is a pronoun inflected in the inessive, and example (18) a nominal predicate *ruzavaľ*.

SYMMETRIC 2ND PAST TENSE: CONJUGATED NON-VERBAL PREDICATES
Verbal predicates

(14) *Mon* *ťe* *ška-va* *ťejťeŕ* *vaks-sto* *sa-kš-n-iľ-iń.*
I this time-PROL girl side-ELA come-FREQ-FREQ-2PST-1SG
‘I would come from the girl’s (place) at this time of day.’ (Paltin et al. 1997: 9)

(15) *Mon lovn-iľ-iń kńiga źardo panžo-v-ś kenkš-eś di*
I read-2PST-1SG book when open-REFL-1PST door-DEF and

sova-ś ťeťa-m.
come.in-1PST.3SG father-1SG
'I *was reading* a book, when the door opened and my father came in.'
(Mosin & Bayushkin 1983: 68)

Adjectival predicate

(16) *Kudo-ś ťeke čavo-ľ.*
house-DEF like empty-PST.3SG
'It was as if the house were empty.' (Syatko 2003: 4)

Locational predicate

(17) *Hoť ška-zo-jak rana-ľ, Bajkal-oś uš to-so-ľ.*
though time-3SG-ENCL early-PST.3SG Baykal-DEF already that-INE-PST.3SG
'Though it was early, Baykal was already there.' (Erkay 1991: 110)

Nominal predicate

(18) *Ava-ś ruz-ava-ľ.*
woman-DEF Russian-woman-PST.3SG
'The woman was a Russian (woman).' (Paltin & al. 1997: 27)

Synchronically the 2nd past tense bears the tense marker *-ľ* and person agreement markers, but from a diachronic viewpoint the 2nd past tense suffix is a copula bearing person marker. (e.g. Bartens 1999: 108, 129.) As shown by Hamari (2007: 278), most probably the copula has first fused with non-verbal predicates, after which it has extended to the verbal paradigm. Mutual interaction between non-verbal and verbal conjugational paradigms is attested also in the present tense conjugational paradigms of the Mordvinic languages.

6.4 Paradigmatic asymmetry: neutralisation of tense and mood inflection in non-verbal predication

In the case of paradigmatic periphrasis entire word-classes lack certain combinations of inflectional categories (Haspelmath 2002: 143).[2] In accordance with the observation according to which paradigmatic neutralisation is typical of marked categories, the Erzya non-verbal predicate constructions also display paradigmatic periphrasis when compared to verbal conjugational paradigms. In Erzya, non-verbal conjugation is found only in the indicative, and no modal categories can be expressed inflectionally. Non-verbal conjugation has present and 2nd past tense paradigms, but inflection of non-verbal predicates is impossible in the 1st past tense. Consequently, the paradigmatic opposition of the 1st and 2nd past is neutralised in non-verbal conjugation. The 1st past tense marker *-ś* is of ancient origin, and the fact that it is not used with

[2] This can be distinguished from categorial periphrasis: for example, the periphrastic future is similar to inflectional future formations in French in that it has a future tense meaning, but this meaning is expressed purely syntactically. (Haspelmath 2002: 144).

non-verbal predicates speaks in favour of a younger origin for non-verbal conjugation (Keresztes 2001: 96). The old 1st past tense has not been able to expand into non-verbal conjugation, but the newer 2nd past tense has been able to extend from non-verbal to verbal conjugation. Consequently, verbs have more paradigms in the past tense. As noted above, the two past tenses also have different semantics in verbal conjugation. It must also be noted that Erzya verbal predicates have a category of object declension (see e.g. Keresztes 1999). The oppositions between several categories of mood—such as the imperative, optative, conditional, conjunctive, conjunctive-conditional, desiderative—can not be expressed inflectionally in non-verbal predicate constructions.

	Verbal predicates	**Non-verbal predicates**
Tenses	present 1. past tense 2. past tense	present past tense
Moods	indicative imperative conditional conditional-conjunctive desiderative conjunctive optative	indicative

Table 6: Paradigmatic asymmetry of non-verbal predication

Grammatical categories that cannot be expressed by inflectional suffixes in non-verbal predication can be expressed using the copula-verb. Example (19) illustrates the use of the copula in the imperative mood. The nominal predicate *inžeks* is encoded in the translative.

(19) *Uľ-ť* *inže-ks.*
be-2SG.IMP guest-TRA
'Be a guest!' (Syatko 2003: 10)

6.5 Constructional asymmetry: employment of copula in non-verbal predication

Supplementary structural encoding occurs optionally in Erzya non-verbal predication and this leads to constructional asymmetry. The copula auxiliary *uľńems* 'be' is used to encode the past and future tenses, and in poetry, also to encode the present tense see (Turunen 2009: 269–270). The auxiliary also encodes moods other than the indicative, as shown above. This auxiliary is inflected in tense and person, and the primary information bearing unit (Croft 2001: 258), the non-verbal predicate, is inflected in number in the case of a plural subject (with the exception of locational predicates, translative and genitive predicates and *ń*-adjectives). It seems that as far encoding is concerned, the past tense copula and conjugational forms are in free variation, if morphological restrictions on using conjugational forms are not taken into account, see (Turunen 2010).

Table 7 illustrates the alternative of using a copula instead of conjugation to encode the past tense. Constructions with the copula *uľńems* 'be' express similar semantic content to the

constructions in table 7 above which illustrates the symmetric non-verbal and verbal paradigms of the past tense.

	Adjectival ‘beautiful’	**Nominal** ‘man’	**Locational** ‘at home’	**Verbal** ‘sing’
1SG	*uľ-ń-iń mazij*	*uľ-ń-iń ćora*	*uľ-ń-iń kudo-so*	*mor-i-ń*
2SG	*uľ-ń-iť mazij*	*uľ-ń-iť ćora*	*uľ-ń-iť kudo-so*	*mor-i-ť*
3SG	*uľ-ńe-ś mazij*	*uľ-ńe-ś ćora*	*uľ-ńe-ś kudo-so*	*mora-ś*
1PL	*uľ-ń-ińek mazij-t*	*uľ-ń-ińek ćora-t*	*uľ-ń-ińek kudo-so*	*mor-i-ńek*
2PL	*uľ-ń-iď e mazij-t*	*uľ-ń-iď e ćora-t*	*uľ-ń-iď e kudo-so*	*mor-i-ď e*
3PL	*uľ-ńe-ś-ť mazij-t*	*uľ-ńe-ś-ť ćora-t*	*uľ-ńe-ś-ť kudo-so*	*mora-ś-ť*

Table 7: Asymmetric past tense non-verbal predicate constructions

Examples (20–22) illustrate copula constructions in which the copula verb is conjugated in the past tense of the third person plural. In example (20) the semantic predicates are the plural inflected adjectives *kalgodot* and *keľmť*. In example (21) the semantic predicate is the locational expression *šalašsońť* which is a noun inflected in the inessive of the definite declension, and in example (22), the predicate is the noun *jalgat* which has a modifier.

ASYMMETRIC COPULA CONSTRUCTIONS, PAST TENSE

Adjectival predicate

(20) *Val-ot uľ-ńe-ś-ť kalgodo-t di keľm-ť.*
Word-PL be-FREQ-1PST-3PL harsh–PL and cold-PL
‘The words were harsh and cold.’ (Syatko 2003: 3)

Locational predicate

(21) *Modamaŕ-ť-ńe uľ-ńe-ś-ť šalaš-so-ńť.*
potato-PL-DEF be-FREQ-PST.3PL hut-INE-DEF
‘The potatoes were in the hut.’ (Erkay 1991: 87)

Nominal predicate

(22) *Siń uľ-ńe-ś-ť a jav-ov-iks-t jalga-t.*
they be-FREQ-1PST-3PL NEG separate-REFL-NOM-PL friend-PL
‘They were inseparable friends.’ (Erkay 1991: 17)

6.6 Encoding the future tense: a different auxiliary in non-verbal predication

The non-verbal and verbal conjugational paradigms are symmetric, in that neither of them have an inflectional category of future; rather, an auxiliary is needed. The same auxiliary *karmams* with its original denotation ‘begin’ can be used with all types of predicate clauses, but in non-verbal predication the copula verb *ul'ems* ‘be’, conjugated in the present tense, is also employed to refer to the future (Budenz 1877: 75; Evsev’ev 1963: 118; Cygankin et al. 2000: 241).

Example (23) illustrates the encoding of the future tense in a verbal predicate clause with the negated auxiliary *karmams*. In example (24) an adjectival predicate construction contains a copula verb *uľat.* (The second phrase of the same example illustrates the locational predicate

conjugated in the present tense of the 2nd person singular.) In the locational predicate construction illustrated in example (25), the same auxiliary occurs with a negator, whereas in example (26), the auxiliary *karman* is applied. The nominal predicate construction is illustrated in example (27) in which the auxiliary *uľat* is employed, and in example (28) in which the auxiliary *karmat* occurs. In the both nominal predicate clauses the nouns are inflected in the translative (*kożajkaks, ćoraks*), which can be employed instead of the nominative (see Turunen (forthcoming b)).

Verbal

(23) *Mikoľ ľeľa-j, traktor-oń zavoľďa-mo a karm-atano?*
Mikoly uncle-VOC tractor-GEN turn.on-INF NEG will-1PL
'Uncle Mikoly, shall we not turn the tractor on?' (Erkay 1991: 21)

Adjectival

(24) *Ko-sto uľ-at vańks buťi eŕva či-ste rudaz pot-s-at,..*
what-ELA be-2SG clean if every day-ELA mud inner.side-INE-2SG
'How can you keep clean if you are in the mud every day?' (Syatko 2003: 2)

Locational

(25) *Paro lomań-eń-ť vaks-so sval a uľ-at, kńiga-ś sval vaks-so-t.*
good human- GEN-DEF near.by-INE always NEG be-2SG book-DEF always INE-2SG
'You will not always be near good people, but books will always be at your side.'
(Syatko 2003: 2)

(26) *Si ije-ste mon karm-an Saranskoj-se.*
come.PTCP year-ELA 1SG be.FUT-1SG Saransk-INE
'Next year I shall be in Saransk.' (questionnaires)

Nominal

(27) *Ńej ton ul'-at moń kożajka-ks.*
now you be-2SG my Wife-TRA
'Now you will be my wife.' (Syatko 2003: 7)

(28) *Źardo ton karm-at pokš ćora-ks, ram-at eś-ťe-ť alkuks-oń mašina.*
when 2SG become-2SG big boy-TRA buy-2SG self-to-2SG real-GEN car
'When you are a big boy, you'll buy yourself a real car!' (questionnaires)

7. Negation

In this section the negation patterns of non-verbal predication are compared to those of verbal predication in order to examine the (a)symmetry of non-verbal and verbal predicate constructions. The Erzya negation system is very interesting because of its complexity. In a nutshell, there are two negative particles *a* and *avoľ,* then a locational negator *araś* which can be conjugated, and a negative auxiliary which is employed in verbal predication in the 1st past tense. Among the two negators *a* and *avoľ* occurring in intransitive predication, the particle *a* has the widest use: it occurs in non-verbal and verbal predicate constructions. The negator *avoľ* is

used mainly in non-verbal predicate constructions, but is applied in verbal predicate constructions as a constituent negator, as well as in the desiderative and conjunctive moods. The third negator *araś* is, in addition to its use in locational predication, typical of existential and possessive clauses. The negator *araś* is seldom used as a negator in nominal and adjectival predicate constructions, except for its employment in the translative predicate construction. The negator *apak* occurs only in past tense participle predicate constructions. A detailed analysis of negation in non-verbal predicate constructions in the Mordvinic languages is available in Hamari (2007). Erzya negation patterns were also examined by Stassen (1997: 289–291), although his views have been criticised. (Pajunen 1998b; Turunen 2006: 180–181; Hamari 2007: 70.)

7.1 Symmetric non-verbal predicate constructions with the negator *a*

The verbal negation patterns are illustrated in table 8. In the present tense, the uninflected negator *a* is used and the main verbal predicate is conjugated, but in the 1st past tense, the negative auxiliary is inflected and the main verb remains in its basic form (the so-called connegative). The negator *a* also occurs in verbal predication in the 2nd past tense. It can additionally be used in non-verbal predicate constructions in the present tense as illustrated in table 9, and in the 2nd past tense as illustrated in table 10.

	Present tense	**1st past tense**	**2nd past tense**
1SG	*a jak-an*	*eź-iń jaka*	*a jak-iľ-iń*
2SG	*a jak-at*	*eź-iť jaka*	*a jak-iľ-iť*
3SG	*a jak-i*	*eź jaka*	*a jak-iľ*
1PL	*a jak-atano*	*eź-ińek jaka*	*a jak-iľ-ińek*
2PL	*a jak-atado*	*eź-iďe jaka*	*a jak-iľ-iďe*
3PL	*a jak-it*	*eź-ť jaka*	*a jak-iľ-ť*

Table 8: Negation of verbal predicates, *jakams* ‘go’

	Noun ‘man’	**Adjective** ‘beautiful’	**Locative** ‘at home’	**Verb** ‘sing’
1SG	*a ćora-n*	*a mazij-an*	*a kudo-sa-n*	*a mor-an*
2SG	*a ćora-t*	*a mazij-at*	*a kudo-sa-t*	*a mor-at*
3SG	*a ćora*	*a mazij*	*a kudo-so*	*a mor-i*
1PL	*a ćora-tano*	*a mazij-tano*	*a kudo-so-tano*	*a mor-atano*
2PL	*a ćora-tado*	*a mazij-tado*	*a kudo-so-tado*	*a mor-atado*
3PL	*a ćora-t*	*a mazij-t*	*a kudo-so-t*	*a mor-it*

Table 9: Symmetric present tense negative construction, negator *a*

	Noun ‘man’	**Adjective** ‘beautiful’	**Locative** ‘at home’	**Verb** ‘sing’
1SG	*a ćora-ľ-iń*	*a mazij-ľ-iń*	*a kudo-so-ľ-iń*	*a mor-iľ-iń*
2SG	*a ćora-ľ-iť*	*a mazij-ľ-iť*	*a kudo-so-ľ-iť*	*a mor-iľ-iť*
3SG	*a ćora-ľ*	*a mazij-ľ*	*a kudo-so-ľ*	*a mor-i-ľ*
1PL	*a ćora-ľ-ińek*	*a mazij-ľ-ińek*	*a kudo-so-ľ-ińek*	*a mor-iľ-ińek*
2PL	*a ćora-ľ-iďe*	*a mazij-ľ-iďe*	*a kudo-so-ľ-iďe*	*a mor-iľ-iďe*
3PL	*a ćora-ľ-ť*	*a mazij-ľ-ť*	*a kudoso-ľ-ť*	*a mor-iľ-ť*

Table 10: Symmetric 2nd past tense negation, negator *a*

Examples (28–32) illustrate the symmetric negation patterns of verbal and non-verbal predicates. Example (28) contains a verbal predicate with the negator *a*. Even though the negator *a* can be employed throughout the domain of non-verbal predication, it more often occurs in adjectival than in nominal predication, see (Turunen 2009: 301). This is most probably because *a* is also a constituent negator with which the contrastive meaning of an adjective can be produced. Example (29) illustrates an adjectival predicate construction in which the negator *a* precedes the conjugated adjective *beŕańťado*. This construction is ambiguous with regard to the role of negator: it can be regarded either as a constituent or clausal negator. It is characteristic of Erzya that when locational adverbs are negated with *a*, as with adjectives a contrastive meaning is produced such as ‘not far’→‘close’. This is illustrated in example (30) which has an adverb of location inflected in the 2nd past tense as predicate. Further, Hamari (2007: 176, 245) reports that the negator *a* is typically used in locational predicate constructions which do not express a concrete location. This is illustrated in example (31). In nominal predicate constructions the negator *a* typically has specific uses. In my data, *a* occurs in nominal predication almost exclusively in the special construction ‘X is not a real X’, as illustrated in example (32).

NEGATOR *a*: SYMMETRIC NEGATIVE CONSTRUCTIONS, PRESENT AND 2ND PAST TENSE

Verbal

(28) *Mon ńej uš a maď-an-gak,..*
1SG now already NEG lie.down-1SG-ENCL
‘I am not lying down anymore.’ (Paltin & al. 1997: 8)

Adjectival

(29) *Ńeja-v-i, ćora-ť-ńe a beŕań-ťado.*
see-REFL-3SG boy-PL-DEF NEG bad-2PL
‘Quite clearly, you are not bad men/you are good men.’ (Syatko 2003: 4)

Locational

(30) … *tarka-ś a vasolo-ľ.*
place-DEF NEG far-2PST.3SG
‘… the place was not far.’ (Klyuchagin 1997: 56)

(31) *.. śeďej-em a-lam-ńe-ďe a tarka-so-nzo.*
heart-1SG NEG-much-DIM-ABL NEG place-INE-3SG
'… my heart is a little out of place.' (Syatko 2003: 7)

Nominal

(32) *Azor-tomo kudo-ś – a kudo.*
master-ABE house-DEF NEG house
'A house without a master is not a house.' (Syatko 2003: 7)

The inflecting negative auxiliary is characteristic of Uralic languages (e.g. Comrie 1981: 350, Janhunen 1982: 37). Thus, present tense as well as 2nd past tense patterns of verbal negation, in which the uninflected particle *a* is employed, must be an innovation in the Mordvinic languages. Hamari (2007: 256) cautiously suggests that the negator *a* can be traced to a personal form of an auxiliary and as such, is more likely to have occurred as a negative element in the verbal paradigm. Further, she notes that it would appear obvious that the negative particle functions as the result of reciprocal influence between verbal and nominal conjugation. In this process, the fact that *a* occurs in the negation of constituent negation, may have played an important role. Hamari (2007: 255) suggests that the coinciding functions of marking negative focus as well as negating verbal predicates could have led to a situation in which the same negative marker was also accepted for the negation of nominal and adjectival predicates.

7.2 Asymmetric non-verbal negation constructions with the particle *avoľ*

Non-verbal predication differs from verbal predication in that in non-verbal predication, another negator besides *a* is also employed, namely the particle *avoľ*. It was noted above and in more detail in Turunen (2009: 299–301) that the negator *avoľ* is clearly more frequent than *a* in nominal predicate constructions in my data. In adjectival predicate constructions the particles *a* and *avoľ* occurred evenly in my data. Typically the negator *a* often functions as a constituent negator, as *avoľ* is more of a clausal negator in nominal and adjectival predication, even though the distinction is often hard to make. The negator *avoľ* does not occur in verbal predication except in the conjunctive and desiderative moods. The negator *avoľ* developed from a combination of the negative particle (or negative auxiliary verb form) and the copula verb 'be' and thus, plausibly, was originally used in non-verbal predication, after which it acquired a new function in some verbal categories. (Hamari 2007: 259–260).

	Noun	**Adjective**	**Locative**	**Verbal**
1SG	*avoľ ćora-n*	*avoľ mazij-an*	*avoľ kudo-sa-n*	*a mor-an*
2SG	*avoľ ćora-t*	*avoľ mazij-at*	*avoľ kudo-sa-t*	*a mor-at*
3SG	*avoľ ćora*	*avoľ mazij*	*avoľ kudo-so*	*a mor-i*
1PL	*avoľ ćora-tano*	*avoľ mazij-tano*	*avoľ kudo-so-tano*	*a mor-atano*
2PL	*avoľ ćora-tado*	*avoľ mazij-tado*	*avoľ kudo-so-tado*	*a mor-atado*
3PL	*avoľ ćora-t*	*avoľ mazij-t*	*avoľ kudo-so-t*	*a mor-it*

Table 11: Asymmetric negation of non-verbal predicates, present tense, negator *avoľ*

The following examples illustrate non-verbal predicate constructions with the negator *avoľ*. In example (33) properties of both the subject *pokš* and *viškińejak* are negated by this negator. Example (34) illustrates the adjectival predicate conjugated in the third person of the 2nd past

tense. It is noteworthy that the negator *avoľ* does not directly precede the adjective *sireľ*, as in the case of constituental negation, but is placed before the complete adjectival phrase *pek sireľ*. In example (35) the location in Moscow is negated with *avoľ*. In example (34) the noun phrase *večkeviks jalgat* functions as the predicate. If the negator *a* had been employed instead of *avoľ*, a meaning such as 'you are not a dear friend, but you are still a sort of friend' would have been produced. Compare this with example (22) above, in which *a* occurs as a constituent negator.

NEGATOR *avoľ*: ASYMMETRIC NEGATIVE CONSTRUCTIONS

Adjectival

(33) *Son avoľ pokš di avoľ višk-ińe-jak.*
(s)he NEG big and NEG small-DIM-ENCL
'(S)he is neither big nor small.' (Syatko 2003: 10)

(34) *Kudazorava-ś, lang-s vano-ms, avoľ pek sire-ľ.*
hostess-DEF surface-ILL look-INF NEG very old-PST.3SG
'To look at, the hostess was not very old.' (Klyuchagin 1997: 45)

Locational

(35) *A, paŕak, mon avoľ Moskov-s-an?*
but maybe I NEG Moscow-INE-1SG
'But maybe I am not in Moscow?' (Syatko 2003: 2)

Nominal

(36) *Nulgoďks lomań-at ton, avoľ večk-ev-iks jalga-t.*
disgusting human-2SG you NEG love-REFL-NOM friend-2SG
'You are a disgusting person rather than a dear friend.' (Syatko 2003: 2)

7.3 Asymmetric negation in copula constructions in the past tense

In those non-verbal predicate constructions in which the copula verb *uľńems* has been chosen, the negative auxiliary *eź-* may occur together with the copula. This pattern is similar to the basic negation pattern of verbal predicates in the 1st past tense, as illustrated in example (37) and table 8 above. In example (38) the predicate is an adjective in the nominative, whereas in example (39) the nominal predicate is formed from a present tense participle and inflected in the translative.

Verbal predicate

(37) *Ud-oma-ś ťe-ń eź peďa.*
sleep-INF-DEF to-1SG NEG.PST.3SG grasp
'Sleep did not seize me.' (Paltin et al. 1997: 9)

Adjectival predicate

(38) *Mon eź-iń uľ-ńe mazij.*
I NEG-PST.1SG be-FREQ beautiful
'I was not beautiful.' (S. Motorkina)

Nominal predicate

(39) *Ańśak źardo-jak eź-i-ń uľ-ńe lavg-ića-ks di*
only when-ENCL NEG-PST-1SG be-FREQ babble-PTCP-TRA and

eś mastor-oń mij-ića-ks.
own country-GEN sell-PTCP-TRA
'Just that I was never a babbler or a traitor to my own country.'
(Doronin 1996: 359)

Nevertheless, not only my own but also Hamari's (2007: 130) data suggest that in practice this pattern is seldom chosen in non-verbal predication. The negator *avoľ* is often employed as a constituent negator in verbal clauses as well (Hamari 2007: 256–258), and as a constituent negator it can in addition occur in copula constructions. Then the copula is inflected in the affirmative 1st past tense and the negators *a* and *avoľ* usually precede the negated non-verbal constituent directly. This is illustrated in example (40), in which the adjectival phrase *pek kuvaka* is negated by *avoľ*, and in example (41), in which the nominal predicate *lomańť* is negated by the same particle.

(40) *Son uľ-ńe-ś avoľ pek kuvaka, no ečke.*
(s)he be-FREQ-1PST.3SG NEG very tall but thick
'(S)he was not very tall, but plump.' (Erkay 1991: 12)

(41) *Miń avoľ lomań-ť uľ-ń-i-ńek – uŕe-ť!*
we NEG human-PL be-FREQ-1PST-1PL slave- PL
'We were not human beings, but slaves!' (Klyuchagin 1997: 109)

The negators *a* and *avoľ* are in variation in nominal and adjectival predicate constructions, with the adjectival predicate *mazij* conjugated in the first person singular of the present tense in the way illustrated in table 12. The structure of *affirmative* and *negative* non-verbal predicate clauses is symmetrical: negative clauses use the same predication strategies as affirmative. The negator *a* or *avoľ* is simply added and no further changes in the structure of the clauses occur.

PRESENT TENSE				
Affirmative			Negative	
1.	*mazij-an*		*a/ avoľ*	*mazij-an*
	beautiful-1SG		NEG/ NEG	beautiful-1SG
	‘I am beautiful.’		‘I am not beautiful.’	
2.	*mon mazij*		*mon a/ avoľ*	*mazij*
	1SG *beautiful*		1SG NEG /NEG	beautiful
	‘I am beautiful.’		‘I am not beautiful.	
PAST TENSE				
			Negative	
1.	*mazij-ľ*		*a/ avoľ*	*mazij-ľ*
	beautiful-PST.3SG		NEG/ NEG	beautiful- PST.3SG
	‘(S)he was beautiful.’		‘(S)he was not beautiful.’	
2.	*Mazij*	*uľ-ńe-ś*	*uľ-ńe-ś*	*a/avoľ* *mazij*
	Beautiful	be-FREQ-PST.3SG	be-FREQ-PST.3SG	NEG/ NEG beautiful
	‘(S)he was beautiful.’		‘(S)he was not beautiful.’	

Table 12: Negation patterns of adjectival predicates

7.4 The locational negator *araś*

As illustrated above, the negators *a* and *avoľ* can also be used in locational predication. These negators often function as constituent negators in locative predicate constructions, but the locational negator *araś* is clearly a clausal negator. Moreover, the negator *araś* is felt to be more categorical than the other negators. (Hamari 2007: 176, 245.) The negator *araś* can be conjugated in the present and 2nd past tense, as illustrated in table 13. The negation word *araś* is the negative counterpart of the existential-possessive copula (Bartens 1999: 162). (It should be noted that besides the same negator, the locational predicate construction also shares other features with possessive and existential constructions, both semantically and formally.)

	PRESENT TENSE	**PAST TENSE**
1SG	*araś-an kudoso*	*araś-eľ-iń kudoso*
2SG	*araś-at kudoso*	*araś-eľ-iť kudoso*
3SG	*araś kudoso*	*araś-eľ kudoso*
1PL	*araś-ťano kudoso*	*araś-eľ-ińek kudoso*
2PL	*araś-ťado kudoso*	*araś-eľ-iďe kudoso*
3PL	*araś-ť kudoso*	*araś-eľ-ť kudoso*

Table 13: Negation of ‘be at home’ with the locational-existential-possessive negator *araś.*

Examples (42–43) illustrate the employment of the negator *araś*. In example (37) the negator is conjugated in the first person plural of the present tense. In example (38) it occurs in the third person singular of the past tense.

(42) *To-so vaďŕa, ko-so miń araś-ťano.*
that-INE good what-INE 1PL NEG-1PL
'It is good there, where we are not to be found.' (Syatko 2003: 7)

(43) *Ańśak ťeči pokšťa-ś tarka-so-nzo araś-eľ.*
only today grandfather-DEF place-INE-3SG NEG-PST.3SG
'Except that today grandfather was not in his (normal) place.' (Paltin & al. 1997: 18)

When Erzya nominal (and less frequently adjectival) predicates are encoded in the translative (see Turunen (forthcoming b)), the employment of *araś* becomes possible, as illustrated in example (44), in which the nominal predicate *uŕeks* is in the translative. (Further, the same example illustrates how the compound so-called future tense is encoded using the auxiliary *karmams*, see above 7.6.)

(44) *Uŕe-ks źardo-jak araś-eľ-ińek di a karm-atano!*
slave-TRA never-ENCL NEG-2PST-1PL and NEG be-1PL
'We were never slaves, and never shall be!' (Doronin 1996: 427)

7.5 Conclusions on negation

Figure 3 illustrates the occurrences of negation constructions in verbal, adjectival, locational and nominal predication. The typical negation constructions in each predicate category are referred to in the boxes, whereas outside the boxes the more marked negation constructions are to be found. Each negator has its core area, and when occurring outside this core area, the negator acquires specific functions such as that of constituent negator. The prototypical negator of adjectival and nominal predication is *avoľ*, whereas *a* is characteristic of constituent negation. The negator *a* occurs as a constituent negator in locational predication as well. In locational predication the negators *a* and *avoľ* occur in place of *araś* when the location is not concrete, or when the presence of something is negated only in some specific place. Locational predicate constructions closely resemble existential clauses when the content 'not in place X (neither in place Y)' in a clausal negation denies *existence*. (See also Hamari 2007: 185). However, if the constituent negators *a* and *avoľ* are used, this opposition can be preserved, and thus, their use may be motivated by a desire to preserve the opposition.

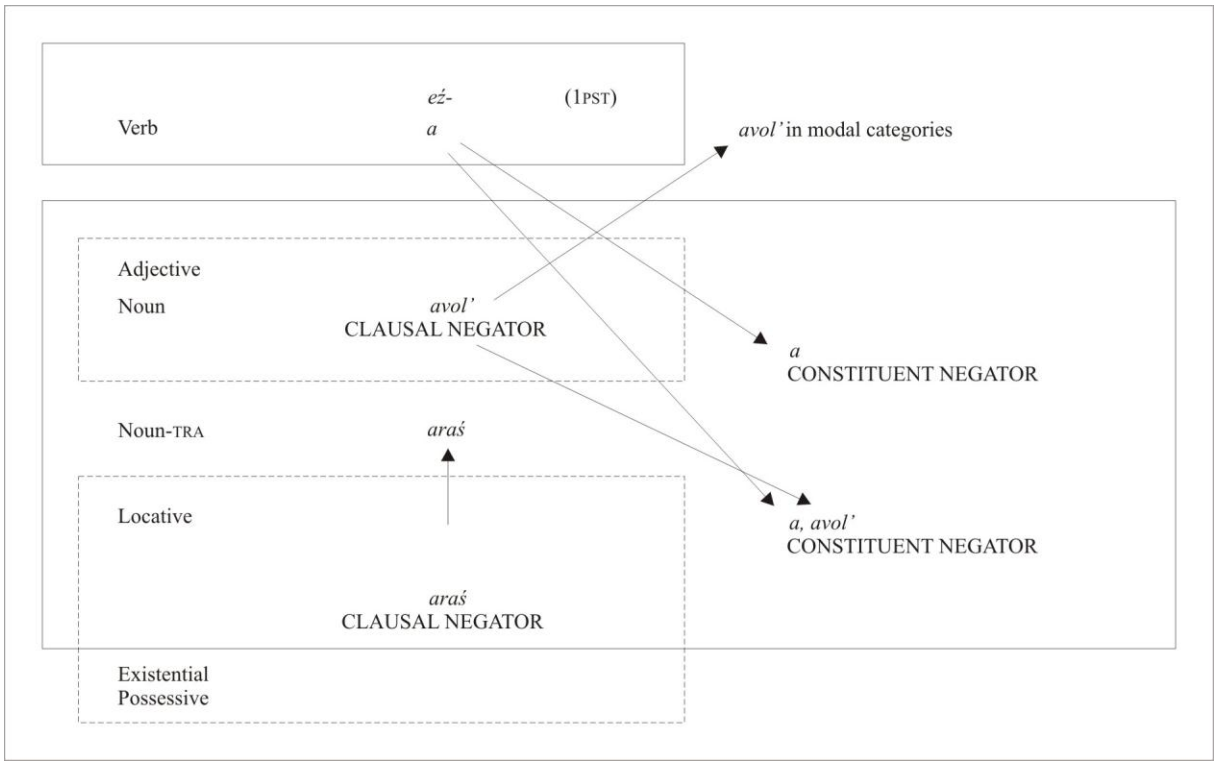

Figure 3: Semantic map of negation constructions

This figure does not make claims about the diachronic development of the negators. Nevertheless, Hamari's (2007: 255–256, 260–261, 267) results concerning the development of the negators are in accordance with those in the present work and indicated with arrows. Thus, the interdependencies shown by the arrows are not inconsistent as far as the diachronic origin of the patterns is concerned.

8. Conclusions on Symmetry and Asymmetry in Non-Verbal Predication

This discussion has focused on the paradigmatic and constructional (a)symmetry between non-verbal and verbal predication constructions. Table 14 displays the conclusions. Paradigmatic symmetry can be observed between non-verbal and verbal predicates in present and past tense constructions. Although paradigmatic and constructional symmetry is observed, asymmetrical features are more characteristic in non-verbal predication.

Symmetry	**Asymmetry**
- present and past tense conjugation - optional symmetric negation in present and 2nd past tense	- non-verbal predicates are less frequent - they have smaller distributional potential - conjugation is optional - agreement in number only (and not in person) is possible - a copula can be used to encode past tense instead of conjugation - paradigmatic neutralisation of 1st and 2nd past tense - no moods other than indicative - auxiliary *ul'ems* is used in analytic future in addition to *karmams* - typically other negators - possibility of expressing relations such as location

Table 14: Relationship between symmetry and asymmetry in Erzya non-verbal predication

Despite paradigmatic and constructional (a)symmetry, **frequency** asymmetry is observed as well. Dryer (2007: 250) states this explicitly: clauses with non-verbal predicates constitute the exception and are less frequent in usage in all languages than clauses with verbal predicates. The distributional potential of non-verbal predicates is also restricted in comparison to verbal ones. Non-verbal predicates conjugate in stative clauses alone, in which the only possible verb that could be used is a copula. Interestingly, though, the distributional potential of Erzya nouns differs from that observed in the other present day Uralic languages. It was noted by Laakso (1997: 283) that in Erzya verbs can be made from nouns by conversion**.** In these cases the first infinitive can be formed from the bare nominal stem and no overt structural coding (verber) is needed, and the same lexical root can be used as a noun and as a verb. Laakso (ibid.) suggests that the possibility of conversion in the Mordvinic languages may to some extent be related to non-verbal conjugation. The Samoyedic languages notwithstanding, the conjugation of non-verbal categories is not attested in Uralic languages other than Mordvinic, and it seems plausible that the possibility of conversion is connected to non-verbal conjugation. In other words, the fact that the behavioural potential of non-verbal parts of speech is similar in stative predication may have resulted in nouns acquiring behavioural potential typical of verbs in other contexts also. It is important to note that even when functioning as predicates, the non-verbal categories preserve their behavioural potential, because they can be inflected in case and marked definite. Thus, non-Verbal predicates may express relations that Verbal predicates cannot. When Nouns such as *kudo-so-nzo-ľ-ińek* (house-INE-3SG-2PST-1PL) are inflected in case and the possessive declension, and then conjugated, they preserve more information compared to conversion. (Laakso 1997: 283.)

9. Increased Complexity as a Result of Asymmetry

There are many theories concerning how to determine and measure linguistic complexity. Some scholars measure complexity purely in terms of morphological encoding rather than analytic encoding (e.g. de Groot 2008; Nichols, Barnes and Peterson 2006). This viewpoint showed that

Erzya non-verbal predicate constructions are morphologically complex (Turunen 2006). However, linguistic complexity can be, and actually often is, understood as a more general and more complex phenomenon than that which takes into consideration only the morphosyntactic structure and grade of syntheticity.

To begin with, there are two main approaches to linguistic complexity: the absolute one, which views complexity as the objective property of a system, and the relative one, by which is meant complexity as a cost and difficulty to language users (see for discussion Miestamo 2006). In the present treatise, I concentrate on measuring the complexity of Erzya predication patterns in terms of absolute complexity, which is understood as a more abstract level phenomenon as opposed to only morphological structures. I have adopted here Miestamo's metric, which has much in common with the previous metrics of Dahl (2004), McWhorter (2001, 2008) and Kusters (2008). Miestamo (2006; 2008) suggests that especially when taking functional domains as the point of departure, two very general principles can be used as criteria for determining complexity. According to this metric, violations of the next two general principles increase the complexity of a linguistic entity:

1. the Principle of Fewer Distinctions
2. the Principle of One-Meaning-One-Form

The Principle of Fewer Distinctions is violated when, for example, verbal inflection overtly signals agreement or categories like tense, aspect or mood. The principle of One-meaning-One-Form is violated by phenomena such as allomorphy, homonymy and fusion. As Miestamo notes, his principles overlap with McWhorter's metrics (as well as Kusters', who studied relative complexity). The Principle of Fewer Distinctions resembles the principles of Overspecification (McWhorter) and Economy (Kusters), and the Principle of One-Meaning-One-Form overlaps with Structural Elaboration, Irregularity (McWhorter) and Transparency (Kusters).

Miestamo suggests that the complexity of that system of grammatical meanings that languages distinguish within functional domains is by no means exhaustively accounted for by counting the number of distinctions. For example, paradigmatic neutralisation of grammatical distinctions in specific environments and paradigmatic restrictions increase complexity. In one word, **asymmetries** between comparable domains lead to increased complexity. Here, Miestamo makes use of the same metrics as Dahl (2004) stating that the complexity of a linguistic entity should be described in terms of the length of description. Asymmetric systems are more complex than symmetric ones as they need longer descriptions. Miestamo (2006: 353) states that

> In practise this means that when we are describing a symmetric paradigm we may simply state that certain distinctions can be in a functional domain but when we have an asymmetric paradigm we must specify which categories do not occur in combination with the marked category. This approach is plausible when it is clear that we are dealing with distinctions made in unmarked contexts and restricted in marked ones.

Following Miestamo's approach, I suggest that when a language restricts the number of overtly signalled categories in non-verbal predication one might be tempted to say that less grammatical distinctions are made and the amount of complexity is correspondingly decreased. In this sense, non-verbal predication would have a simplifying effect on the domain of tense and mood. But as Miestamo suggests, this would not be the correct conclusion, since language makes all these distinctions in its grammar and the number of these distinctions is restricted only in certain

contexts. Additional restrictions such as paradigmatic neutralisations introduce more complexity into a grammar. When a paradigm is asymmetric such as that of non-verbal predication, we must specify which categories do not occur in combination with non-verbal categories and which categories used in non-verbal predication correspond to which categories in verbal predication.

Erzya non-verbal predicate constructions do not add to the complexity of grammar insofar as verbal and non-verbal predicates have symmetric paradigms for the present and 2nd past tenses, affirmative and negative. Even though non-verbal conjugation makes these Erzya structures morphologically more complex, the conjugation of non-verbal predicates makes the predication system simple. There is only one rule: conjugate the predicate. Consequently, and importantly, this means that opposing results are forthcoming when the same constructions are described in terms of functional complexity and morphosyntactic complexity (see Turunen 2006). Conjugated non-verbal predicate constructions are morphologically complex, but from the view point of functional complexity (to the extent that they are symmetric with verbal predicates in the present and 2nd past tense) they are not complex.

Further, it should also be noted, that when describing complexity only in terms of the number of morphemes, the difference between affixes which denote behavioural potential, on the one hand, and overt structural encoding on the other, does not become manifest. Suffixes of both kinds add something to the morphosyntactic structure of non-verbal predicate clauses. The extension of behavioural potential to non-verbal predication makes the system less complex. When overt structural encoding is needed in non-verbal predication, the system becomes more complex, since speakers must differentiate between those parts of speech functioning as predicates (coding non-verbal predicates with a copula, and verbal predicates with inflection).

In present-day Erzya asymmetric non-verbal predicate paradigms and constructions are typical in translations and the vernacular (Turunen 2009: 293–295). Present tense analytic constructions which can be explained as the result of the occurrence of less behavioural potential in the less frequent predicate class lead to increased asymmetry. The lack of inflectional categories—no inflectional person markers in the present tense or analytic copula constructions in the past tense instead of inflectional morphology—decreases morphological complexity. Conversely, in terms of paradigmatic asymmetry and functional complexity neutralisation of paradigms leads to increased complexity.

There are also violations of the One-Form-One-Meaning Principle. The future tense of non-verbal and verbal predicate constructions is formed (partly) otherwise. There are more rules concerning the encoding of non-verbal than verbal predicates, which further increases complexity. Non-verbal predicate constructions may display morphological constraints with regard to the use of conjugation (see Turunen 2010) unlike finite verbs, which are all inflected in the person. Even though all three non-verbal predicate classes can be encoded similarly, the incidence of different strategies depends on the part of speech of the predicate as illustrated in (Turunen 2009). Variation may also be free in some idiolects. Miestamo (personal communication) notes that even though free variation is less complex than constrained variation, the existence of multiple patterns for encoding the same function adds to the complexity of the grammar.

10. Functional Motivations for Symmetric and Asymmetric Encoding

As Haiman (2000: 281–2) puts it, the fundamental principle of semiotics is that signs are symbolic (arbitrary or unmotivated) in most mature grammatical systems. Nevertheless, it has been observed that the structure of language does not vary in an endless manner, but there are *linguistic universals*. Haiman states that cross-linguistic similarities can often be attributed to universal semantics, that is, grammatical structure is very often motivated by the meanings to which it corresponds. The relationship between grammatical form and semantic and/or pragmatic function represents the search for explanatory concepts outside the basic cross-linguistic patterns, and leads to an analysis of grammatical structure in terms of *external motivation* (e.g. Croft 1995: 127). It has been suggested that two general competing external motivations of *economy* and *iconicity* lead to variation in language (yet other external motivations have been identified as well, see Du Bois 1985: 353–4; Haiman 1983: 814). The effect of economy is that the number of distinct constructions becomes minimised as far as possible (Goldberg 1995: 67–8). Economy of storage and processing motivates system cohesion, which in its turn motivates language-internal analogy (Miestamo 2007: 300). Stassen (1997: 111–112) found that economy affects the encoding of intransitive predication cross-linguistically in such a way that languages tend to minimise the number of structural patterns used in predication. The intuition behind iconicity is that the structure of language reflects in some way the structure of experience (Croft 2006: 102). It has been suggested by Miestamo (ibid.) that iconicity plays an important role in motivating asymmetric patterns: if there are functional asymmetries they can be proposed as the functional motivations for the structural asymmetry found.

In terms of functional motivations, symmetric non-verbal predicate paradigms copy the linguistic structure of verbal predicate paradigms. They are language-internally analogous to their verbal counterparts. This encoding pattern is economical in that all predicates, regardless of semantic class, can be coded similarly. Non-verbal predicates encode states and verbal predicates actions or events. This functional-level asymmetry motivates structural level asymmetry. In asymmetric non-verbal predicate paradigms non-verbal predicates do not display the behavioural potential of verbs, namely conjugation. This pattern is, according to Stassen (1997: 111), motivated by the pressure of Identity. Identity statements are omnitemporal, and they do not denote predication, which explains the often observed lack of inflectional potential in identity statements. In other words, identity statements do not copy the structural behaviour of action predicates, which are temporal and denote predication. Similarly, other non-verbal predicate constructions may fail to display the behavioural potential of action predicates. Especially nominal predicates copy easily the encoding pattern typical of identity statements, but this pattern may spread to the whole domain of non-verbal predication. Thus, asymmetric non-verbal predicate constructions that do not display the same behavioural potential as verbal predicates (person and tense inflection) copy aspects of the functional-level asymmetry existing between omnitemporal and temporal statements.

Non-verbal categories occur less frequently as predicates than verbs. Haspelmath (2002: 238; 2006) shows that the cross-linguistic tendency for distributional asymmetries correlates with overt coding and frequency: the more frequent term of an opposition tends to be coded with less material or zero and such a more frequent term seems to be more widely distributed. This explains why a copula occurs in some Erzya non-verbal predicate constructions, but not in verbal ones. Verbs are clearly more frequent as predicates than non-verbal parts of speech, and it is to be expected that they display less overt coding. Frequency may also explain why non-verbal

predicate paradigms are suppletive. According to Miestamo (2007: 308), it is possible that frequency motivates restricted behavioural potential in cases where extra distinctions are made in connection with unmarked categories. This could be because extra distinctions are more easily remembered in frequent categories. On the other hand, Miestamo (2007: 300, 308–309) claims that frequency alone cannot explain those phenomena subsumed under typological markedness. Not only can the fact that negatives are less frequent than affirmatives explain paradigmatic neutralisation in negatives, but also the stative character of negation. In accordance with Miestamo's observation on negatives, as noted above, not only frequency but also the lack of opposition between states and processes explains the lack of tense and aspectual categories in non-verbal predication.

In Erzya, the behavioural potential of conjugation diminishes on the scale Verbs – Adjectives – Nouns. Similar observations have also been made concerning other languages, as summarised in table 2 above, which shows the conceptual space of predication. It is possible that the text frequency of the part of speech used in predicate function might also influence the observed tendency. Namely, Thompson's (1988) investigation of English conversation shows that predicatively used adjectives by far outnumber those that are used attributively. Thus, at least in English, adjectives are more typically (even though not prototypically) used in a predicative function than as an attribute and consequently, we are likely to find relatively numerous instances of adjectival predicates in speech. While comparing the predicative use of nouns and adjectives in my Erzya database, I found that adjectives occur more often as predicates than nouns, especially in past tense constructions. In that case the effect of frequency would be that because adjectives occur more frequently as predicates than nouns, they also adopt a similar morphosyntactic encoding to verbs more readily than nouns. Nouns occur more often and also more prototypically as subjects of clauses than as predicates, and are thus syntactico-semantically more remote from verbs. As observed in Turunen (2009: 289), in Erzya locatives are more obligatorily encoded with a similar predication strategy to verbs and adjectives, while nouns are more likely to be encoded without inflectional suffixes. Because locatives most probably are not used in a predicative function more often than as complements, frequency is not a plausible explanation for the encoding of locatives. This may be due to the particular role locatives play in non-verbal predication: for example, Eriksen (2006: 2) states that locatives do not form true predicates. The relationship between locational and other non-verbal predicates should be studied in more detail, and more empirical data should definitely be gathered in order to better understand the role of frequency.

11. Conclusion

In the present treatise, Erzya non-verbal predicate constructions and paradigms were studied in the light of (a)symmetry. Non-verbal parts of speech denote states, and they are less frequent and less typical in the predication function, for which reason asymmetric structures of non-verbal predication are attested in the world's languages more often than symmetric ones. Action-denoting words, which occur typically in the pragmatic function of predication, display maximal behavioural potential: inflectional TAM (tense, aspect and mood) and person marking. When not so frequent, typologically marked parts of speech function as predicates, they display either the same amount of behavioural potential, less behavioural potential or no behavioural potential at all typical of action words. All the previously stated instances can be found in Erzya, which makes use of symmetric and asymmetric non-verbal predicate paradigms. The non-verbal

predicates in Erzya may display the same amount of behavioural potential as verbs when they are inflected in person and tense. This makes present tense and 2nd past tense paradigms symmetric. When they do not display all the behavioural potential of verbs, constructional and paradigmatic asymmetry arises. In the present tense, the non-verbal predicates may lack the behavioural potential of verbs, in which case they do not display person marking. When non-verbal predicates lack the behavioural potential of verbal predicates, more overt coding is needed to indicate tenses other than the present, which is accomplished by introducing a copula. Even though symmetric negation patterns are attested in non-verbal predication and verbal predication, the negation of non-verbal predicates differs in some respects from that of verbal predicates. All in all, Erzya non-verbal predication is partly symmetric when compared to verbal predication, but asymmetric structures are more typical than symmetric ones. Asymmetric structures mirror differences in function. Language internal analogy leads to symmetric structures, which in turn makes the grammatical system economical. When symmetric structures are employed, the complexity of grammar decreases, even though morphological complexity increases.

Abbreviations

Abbreviation	**Explanation**
1	1st person
2	2nd person
3	3rd person
ADJ	adjectiviser
ADV	adverbiliser
CAR	caritive
CONJ	conjunctive
DEF	definite
DIM	diminutive
ELA	elative
ENCL	enclitic
FREQ	frequentative
GEN	genitive
ILL	illative
INE	inessive
INF	infinitive
IMP	imperative
LAT	lative
NEG	negative
NOM	nominaliser
PASS	passive
PL	plural
PST	past
PTCP	participle
REFL	reflexive
SG	singular
TRA	translative

References to corpora

Doronin 1996 = Доронин, Александр: Баягань сулейть. Роман. Мордовской книжной издательствась. Саранск.

Erkay 1991 = Эркай, Никул: Алёшка. Повесть. Для сред. Шк. Возраст. Мордовской книжной издательствась. Саранск.

Klyuchagin 1997 = Ключагин, Пётр: Цёканька. Ёвтнемат. Средней ды старшей классо тонавтницятнень туртов. Саранск: Мордовской книжной издательствась.

Paltin et al 1997 = Палтин Ю.М., Петрушкин Н.И., Разгуляева Т.В., Рузавина В.М., Ерюшев Б.А. : Оцёр. Ёвтнемат. Средней ди старшей классо тонавтниципятнень туртов. Саранск.

Mosin, M.V. & Bayushkin, N.S. 1983: Ersämordvan oppikirja. Suomalais-ugrilainen Seura. Helsinki.

Syatko 2003: 2, 3, 4, 7 and 10 = Erzya Syatko journals, material collected from an unanalysed electronic corpus of the Volga server of the Research Unit for Volgaic Languages, University of Turku.

References

Anderson, Stephen R. 2003: Inflectional morphology. In Shopen, Timothy: Language typology and syntactic description. Vol. III Grammatical categories and lexicon. 150–201.

Baker, Mark C. 2003: Lexical categories. Verbs, Nouns, and Adjectives. Cambridge: Cambridge University Press.

Bartens, Raija. 1999: Mordvalaiskielten rakenne ja kehitys. Mémoires de la Société Finno-Ougrienne 232. Helsinki.

Budenz, József. 1877: Moksa- és erza-mordvin nyelvtan. Nyelvtudomány Közlemények 13. Budapest.

Comrie, Bernard. 1981: Negation and other verb categories in the Uralic languages. Congressus Quintus Internationalis Fenno-Ugristarum. Pars VI. 350–355.

Croft, William. 1995: Modern Syntactic Typology. In Shibatani & Bynon (eds.) Approaches to Language Typology. Oxford: Clarendon Press. 85–144.

-----. 2001: Radical Construction Grammar. Syntactic Theory in Typological Perspective. Oxford: Oxford University Press.

-----. 2006: Typology and Universals. Second Edition. First printed in 2003. Cambridge–New York–Port–Chester-Melbourne-Sidney.

Cygankin et al. 2000 = Цыганкин, Д. В. – Агафонова, Н. А. – Имайкина, М. Д. – Мосин, М. В. – Цыпкайкина, В. П. – Абрамова, Е. А. (ред.): Эрзянь кель. Морфология. Саранск.

Dahl, Östen. 2004: The growth and the maintenance of linguistic complexity. Studies in Language Companion Series. Amsterdam–Philadelphia: John Benjamins.

De Groot, Casper. 2008: Morphological complexity as a parameter of linguistic typology: Hungarian as a contact language. In: Matti Miestamo, Kaius Sinnemäki and Fred Karlsson (ed.), Language Complexity: Typology, Contact, Change. Studies in Language Companion Series 94. Amsterdam: Benjamins. 191–215.

Dryer, Matthew. 1997: Are grammatical relations universal? In Bybee, Joan& Haiman, John & Thompson, Sandra A. (eds.) Essays on language function and language type. Amsterdam: Benjamins. 115–143.

-----. 2006: Clause types.In Timothy Shopen (ed.): Language Typology and Syntactic Description. Vol. 1. Clause Structure. Cambridge: Cambridge University Press. 224-275.

Du Bois, John W. 1985: Competing motivations. In Haiman, John (ed.): Iconicity in Syntax. Proceedings of a Symposium on Iconicity in Syntax, Stanford, June 24-6, 1983. Typological studies in Language. Volume 6. Amsterdam–Philadelphia: John Benjamins. 343–365.

Eriksen, Pål Kristian. 2006: On the Typology and the Semantics of Non-verbal Predication. Dissertation for the Degree of Ph.D. Faculty of Humanities. University of Oslo.

Evsev'ev. 1963 = Евсевьев, М. Е.: Избранные труды. Том четвертый. Основы мордовской грамматики. Саранск.

Givón, Talmy. 1984: Syntax: a functional-typological introduction. Volume I. Amsterdam/Philadelphia.

Goldberg, Adele E. 1995: Constructions. A construction Grammar Approach to Argument Structure. The University of Chicago Press. Chicago and London.

Greenberg, Joseph. 1966: Language Universals, with Special Reference to Feature Hierarchies. Janua Linguarum, Series Minor LIX. The Hague: Mouton & Co.

Haiman, John. 1983: Iconic and economic motivation. Language 59. 781–819.

-----. 1985: Symmetry. In Haiman, John (ed.): Iconicity in Syntax. Proceedings of a Symposium on Iconicity in Syntax, Stanford, June 24-6, 1983. Typological studies in Language. Volume 6. Amsterdam–Philadelphia: John Benjamins. 73–95.

-----. 2000: Iconicity. In Morphology. An International Handbook on Inflection and Word-Formation. Volume 1. Handbooks of Linguistics and Communication Sciences. Band 17.1 Booij Gert, Christian Lehmann, Joachim Mugdan in collaboration with Wolfgang Kesselheim, Stavros Skopeteas. Walter de Gruyter. Berlin–New York. 281–288.

Hamari, Arja. 2007: Negation of Stative Relation Clauses in the Mordvin Languages. Mémoires de la Société Finno-Ougrienne 254.

Haspelmath, Martin. 1993: A grammar of Lezgian. (Mouton Grammar Library 9). Berlin: Mouton de Gruyter.

-----. 2002: Understanding Morphology. London: Arnold.

-----. 2006: Against markedness (and what to replace it with). Journal of Linguistics 42.1. 25–70.

-----. 2007: Pre-established categories don't exist: consequences for language description and typology. Linguistic Typology 11.1. 119–132.

-----. 2008: Creating economical morphosyntactic patterns in language change. In: Good, Jeff (ed.) Language universals and language change. Oxford: Oxford University Press. 185–214.

-----. 2008+: Comparative concepts and descriptive categories in cross-linguistic studies http://email.eva.mpg.de/~haspelmt/CompConcepts.pdf

Hengeveld, Kees. 1992: Non-verbal Predication. Theory, Typology, Diachrony. Functional Grammar Series 15. Berlin.

Hopper, Paul & Sandra A. Thompson. 1984: The discourse basis for lexical categories in universal grammar. Language 60. 703–752

-----. 1985: The iconicity of the universal categories ‘noun’ and ‘verb’. In Jonh Haiman (ed.): Iconicity in syntax. Typological studies in language 6. Amsterdam–Philadelphia. 151–183.

Itkonen, Esa. 2001: Maailman kielten erilaisuus ja samuus. [The unity and diversity of the world’s languages]. Yleisen kielitieteen julkaisuja 4. Second edition, revised and expanded. Turku: Turun yliopisto.

Janhunen, Juha. 1982: On the stucture of Proto-Uralic. Finnisch-Ugrische Forschungen 44. Helsinki. 23–42.

Keresztes, László. 1999: Development of Mordvin Definite Conjugation. Mémoires de la Société Finno-Ougrienne 233. Helsinki.

-----. 2001: Laza morfológiai szerkezetek a mordvinban. Büky, L. – Forgács, T. (eds.): A nyelvtörténeti kutatások újabb eredményei II. Magyar és finnugor alaktan. 2000 október 25–26. Szeged. 93–97.

Kusters, Wouter. 2008: Complexity in linguistic theory, language learning and language change. In: Matti Miestamo, Kaius Sinnemäki and Fred Karlsson (ed.), Language Complexity: Typology, Contact, Change. Studies in Language Companion Series 94. Amsterdam: Benjamins. 3–22.

Laakso, Johanna. 1990: Reflections on the problem of Uralic N/V word stems. In László Jakab & László Keresztes & Antal Kiss & Sándor Maticsák (ed.): Congressus septimus internationalis fenno-ugristarum 3A . Debrecen. 153–157.

-----. 1997: On verbalizing nouns in Uralic. Finnisch-Ugrische Forschungen 54. 267–304.

Langacker, Ronald W. 1987: Nouns and verbs. Language 63: 53–94.

McWhorter, John. 2001: The world′s simplest grammars are creole grammars. Linguistic Typology 5: 182–185.

-----. 2008: Why does a language undress? Strange cases in Indoenesia. In: Matti Miestamo, Kaius Sinnemäki and Fred Karlsson (ed.), Language Complexity: Typology, Contact, Change. Studies in Language Companion Series 94. Amsterdam: Benjamins. 167–190.

Miestamo, Matti. 2003: Clausal Negation. A Typological Study. Helsinki.

-----. 2005: Standard Negation: The Negation of Declarative Verbal Main Clauses in a Typological Perspective. Empirical Approaches to Language Typology 31. Berlin – New York: Mouton de Gruyter.

-----. 2006. On the Feasibility of Complexity Metrics. In: Krista Kerge and Maria-Maren Sepper (ed.), Finest Linguistics. Proceedings of the Annual Finnish and Estonian Conference of Linguistics. Tallinn, May 6-7, 2004. Publications of the Department of Estonian of Tallinn University 8. Tallinn: Tallinn University Press. 11–26.

-----. 2007. Symmetric and Asymmetric Encoding of Functional Domains, with Remarks on Typological Markedness. In: Matti Miestamo and Bernhard Wälchli, ed., New Challenges in Typology: Broadening the Horizons and Redefining the Foundations. Trends in Linguistics. Studies and Monographs 189. Berlin/New York: Mouton de Gruyter. 293–314.

-----. 2008: Grammatical Complexity in a Cross-Linguistic Perspective. In: Matti Miestamo, Kaius Sinnemäki and Fred Karlsson (ed.), Language Complexity: Typology, Contact, Change. Studies in Language Companion Series 94. Amsterdam: Benjamins. 23–41.

Newmeyer, Frederick J. 2007: Linguistic Typology Requires Crosslinguistic Formal Categories. Linguistic Typology 11. 133–157

Nichols, Johanna, Jonathan Barnes and David A. Peterson. 2006: The robust bell curve of morphological complexity. Linguistic Typology 10-1. 96–123.
Pajunen, Anneli. 1998a: Pääsanaluokkien eriytymättömyydestä uralilaiskielissä. I n Anneli Pajunen (ed.) Kieliopillistumisesta, analogiasta ja typologiasta. Suomi 185. Helsinki. 56–106.
-----. 1998b: Intransitiivipredikaation typologinen kuvaus – ja uralilaiset kielet. Virittäjä 3. Helsinki: Kotikielen Seura. 476–485.
Payne, Thomas E. 1997: Describing morphosyntax. A guide for field linguists. Cambridge.
Raun, Alo. 1988: The Mordvin Language. Sinor, Denis (ed.): The Uralic Languages. Description, History and Foreign Influences. Leiden. 96–110.
Sasse, Hans-Jürgen. 2001: Scales between nouniness and verbiness. In: Martin Haspelmath, Ekkehard König, Wulf Oesterreicher, Wolfgang Raible (eds.): Language Typology and Language Universals. An International Handbook. Volume I. Berlin- New York: Walter de Gruyter. 495–509.
Schachter, Paul. 1985: Parts-of-speech systems. In Shopen, Timothy (ed.) Language typology and syntactic description. Vol I. Clause structure. 3–61.
Stassen, Leon. 1997: Intransitive predication. Oxford Studies in Typology and Linguistic Theory. Oxford.
Thompson, Sandra A. 1988: A discourse approach to the cross-linguistic category 'adjective'. In: J.A. Hawkins (ed.): Explaining Language Universals. Oxford: Blackwell. 167–185.
Turunen, Rigina. 2006: Complex Morphosyntactic Features of Nominal Predicates in Erzya. SKY Journal of Linguistics 19. Tampere. 173–187.
-----. 2009: A typology of non-verbal predication in Erzya. Acta Linguistica Hungarica 56. Budapest: Akadémiai Kiadó. 251–313.
-----. 2010: The relationship between person and number agreement in Erzya non-verbal predicate clauses. *Finnisch-Ugrische Forschungen* 60. Helsinki. 71-116.
-----. (forhcoming b): Translative as a case of Nominal Predicate in Erzya. To appear in Mémoires de la Société Finno-Ougrienne.
Wetzer, Harrie. 1996: The typology of adjectival predication. Berlin–New York: Mouton de Gruyter.
Zwanenburg, Wiecher. 2000: Correspondance between formal and semantic relations. In Morphology. An International Handbook on Inflection and Word-Formation. Volume 1. Handbooks of Linguistics and Communication Sciences. Band 17.1 Booij Gert, Christian Lehmann, Joachim Mugdan in collaboration with Wolfgang Kesselheim, Stavros Skopeteas. Berlin–New York: Walter de Gruyter. 840–850.

Author's contact information:
Rigina Tururen
Department of Finnish, Finno-Ugric and Scandanvian Languages and Literatures
University of Helsinki
rigina.turunen@helsinki.fi