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The noun-phrase internal position of
property terms in Finnish Sign Language –
A corpus study

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Abstract

In an effort to contribute to the typological understanding of sign language syntax, the present study investigates the noun-phrase internal position of property terms (cf. adjectives) in Finnish Sign Language (FinSL). Based on elicited corpus data, I find that FinSL is a pre-nominal dominant language; that is, there is a significant preference for property terms to occupy the pre-nominal position, but some flexibility in positioning is also present. Investigations were also carried out in an effort to understand the attested variation in position, specifically considering word classification in FinSL and semantic types as potential causes for variation. Based on the results, neither of these options seem to explain the attested variation.

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1. Property terms across modalities

Linguists have been interested in the syntax of noun-phrase internal (i.e., NP-internal) elements for decades, and many typological overviews have been written over the years (see, for example, Greenberg 1963). In the present paper, two typological overviews in particular are used as frequent references. Dryer (2013) provides a large-scale look into the order of noun and property terms across spoken languages, while Coons (2022) gives an overview of the positions of various NP-internal modifiers in relation to the noun in sign languages. It should be noted that for some languages, the latter paper uses linguistic examples extracted from articles unrelated to NP-structure as part of the dataset based on which conclusions were drawn regarding the positions of modifiers. This is to say, any references to this paper with regard to specific languages should be taken with a grain of salt.

Despite the long-standing interest of typologists in the syntax of NP-internal elements, research into the position of NP-internal modifiers, more specifically *property terms*, in relation to the noun in sign languages is few and far between. This means that there are very few sign languages for which we can be certain about the order of noun and property term. Recently, efforts into bridging this research gap have been made regarding, for example, American Sign Language (ASL) (Loos 2022), German Sign Language (DGS) (Pfau & Steinbach, in press) and Sign Language of the Netherlands (NGT) (Arvilommi & Kroesbergen 2025; Pfau & Steinbach, in press). The aim of the current paper is to contribute to bridging this gap, by researching the NP-internal position of property terms in Finnish Sign Language.

Finnish Sign Language (FinSL) is one of the two sign languages used by the Deaf community in Finland. It is used by about 5,500 people, out of which 3,000 are Deaf (Kuurojen Liitto 2020). The other sign language used in Finland is Finland Swedish Sign Language, which is used by only about 100 Deaf signers. Both languages are supported as minority languages, that is, signers have a legal right to use and develop their language(s) and are entitled to interpreters when needed (Oikeusministeriö, n.d.). However, neither language is recognized as one of the official languages of Finland.

The following subsections will delve deeper into the background literature on this topic, starting with the definition and classification of property terms (§1.1.). Then, I will provide a typological, cross-modal, overview of the syntax of property terms (§1.2.). Finally, the research question and the hypotheses are provided in Section §1.3. The background section is followed by a section on the methodology of the present study (§2.), a section on the results (§3.), a

discussion section (§4.), as well as a conclusion (§5.). A more detailed overview of the contents of each section is provided at the outset of a given section.

1.1. Property terms: Definition and classification

The type of modifier I am interested in has been referred to by means of various labels, the most commonly used one probably being *adjective*, and they have been defined in many different ways. Given previous work on word classification in FinSL, I will use the alternative label *property term* (PT). PTs are defined as signs/words that denote stative, gradable and/or time-persistent properties, that are used to select the referent from the possible set of referents provided by the *nominal* (cf. noun) (adapted from Loos 2022). Different types of property terms are expanded upon in Section §1.1.1., while Sections §1.1.2. and §1.1.3. are dedicated to the issue of word classification, with the latter including description of the research that influenced the choice of terminology used in this paper.

1.1.1. Types of property terms

There are two common ways of dividing PTs into different types. The first division is made based on syntax and involves two groups – *predicative* PTs and *attributive* PTs. Property terms are considered to be predicative, if they are located in the verb-phrase. In spoken languages, a predicative PT is often separated from the noun it modifies by a copula, as in Example (1a). Attributive PTs, on the other hand, are located in the noun-phrase (Baker & Pfau 2016) and are typically found right next to the noun they modify, as in Example (1b). The current paper does not concern itself with predicative PTs, as my interest lies in the noun-phrase internal position of PTs.

- (1) English
 - a. ‘the dog is **brown**’
 - b. ‘the **brown** dog’

The second division of PTs into different types is done on the basis of semantics. This division was first proposed by Dixon (1982), and it involves seven different types of PTs¹. These seven types can be grouped into *core* PTs and *non-core* PTs. The group of core PTs consists of the four semantic types that are found in nearly all languages: *dimension* (e.g. ‘big’, ‘short’), *age/newness* (e.g. ‘new’, ‘old’, ‘young’), *value* (e.g. ‘good’, ‘bad’) and *colour* (e.g.

¹ Dixon & Aikhenvald (2004) describe a few additional semantic types (e.g. *difficulty*). However, these are not included in the current paper.

‘red’, ‘dark’). The second group, non-core PTs, consists of the remaining three semantic types: *physical property* (e.g. ‘heavy’, ‘beautiful’), *human propensity* (e.g. ‘happy’, ‘stupid’) and *speed* (e.g. ‘fast’, ‘slow’) – the members of this group are far less common cross-linguistically than core PTs are.

1.1.2. Property terms as a word class across languages

In many languages, property terms constitute one of the three main word classes of *noun*, *verb* and *adjective*, but there are also many languages where PTs are not distinguished from other word classes (Dixon 1982; Dryer 2013). For some languages, this means that PTs are classified as nouns or verbs (Dryer 2013), but for others it may mean that while PTs are distinguished from nouns and verbs, they are not distinguished from other modifiers, such as reduced relative clauses or genitives (Gil 2013).

Overall, the classification of property terms across languages is a controversial topic among linguists. Interestingly, Dixon (1982), who has been cited in the previous paragraph as one of the sources for some languages not distinguishing PTs from other word classes, disagrees with himself in a later study, where he states that all languages do in fact have a word class of adjectives (i.e., property terms), but that occasionally, the differences between PTs and other word classes may be rather subtle (Dixon & Aikhenvald 2004: 12).

Studies on word classes in sign languages have found that word classification comes with certain challenges (Schwager & Zeshan 2010), partly due to the fact that signs tend to be multifunctional, a trait that is common in young languages across modalities (Meir 2012). That is, the same sign/word may function, for example, as either a noun or a verb, depending on the context. Despite the difficulties associated with word classification in sign languages, research suggests that adjective (i.e., property term) is an existing and relevant word class for sign languages (Schwager & Zeshan 2010; Meir 2012).

1.1.3. Classification of property terms in Finnish Sign Language

Despite typological studies indicating that adjective (i.e., property term) is a relevant word class for sign languages, previous work on Finnish Sign Language suggests that this need not always be the case. Jantunen (2010) claims that there are only two main word classes in FinSL – *nominals* and *verbals*. According to him, the word class of *nominals* consists of signs that denote beings and things (cf. nouns), while the word class of *verbals* consists of signs that denote actions and states (cf. verbs). These word classes are described as existing on a continuum.

As FinSL is believed to only have two main word classes, signs denoting the semantic properties of nominals do not make up an independent word class of *adjectives*. Instead, signs that Jantunen labels *property terms*² fall on the verbal-nominal continuum, with some property terms belonging to the category of (marginal³) verbals and others to the category of (marginal) nominals. When it is necessary to make the distinction, this paper will refer to the PTs belonging to these word classes as *verbal property terms* (VPT) and *nominal property terms* (NPT), respectively.

According to Jantunen (2010), PTs are classified as verbals when they behave like prototypical verbals and as nominals when they behave like prototypical nominals. That is, VPTs can display event structure and aspect but they cannot appear clause initially, while the opposite applies to NPTs. Further evidence for this distinction is found in the identical (absence of) marking of VPTs (2a) and prototypical verbals (2b) on the one hand, as well as NPTs (2c) and attributive genitives (2d) on the other hand. It is important to note that the example in (2a) contains a predicative PT, not an attributive PT. It is unclear whether ‘a happy girl’ would also be marked identically.

(2) FinSL

a. [GIRL **HAPPY**]

‘The girl is happy.’

b. [GIRL **CRY**]

‘The girl is crying.’

c. [**RED** APPLE]

‘a red apple’

d. [**TOMMI** APPLE]

‘Tommi’s apple’

(Jantunen 2010: 23)

Although PTs do not make up an independent word class in FinSL, some subclasses have been identified. Jantunen (2010) describes three distinct subclasses: colour terms, signs denoting feelings and emotions, and Shape and Size Specifiers (SASS)⁴. These subclasses

² *Property term* is my own translation of ‘ominaisuusviittoma’, which is the Finnish term used by Jantunen (2010). Additionally, the same term is used interchangeably with *adjective* by Loos (2022).

³ Jantunen (2010) uses the terms *marginal nominal* and *marginal verbal* to convey that while these signs are classified as nominals and verbals, respectively, they exist on the margins of these word classes.

⁴ Jantunen describes SASS as both *property terms* and *grammatical nominals* (see Jantunen 2010: 15 & 20 for more).

correspond to the semantic types of *colour*, *human propensity* and *dimension*, respectively, as described in §1.1.2.

1.2. Syntax of property terms across languages

The world's languages can be categorized into three different groups based on the dominant noun-phrase internal position of property terms in a given language. The most common dominant position in both signed and spoken languages is the *post-nominal* position (§1.2.1.), which occurs as the dominant position in 39% of sign languages and 64% of spoken languages (Dryer 2013; Coons 2022). The *pre-nominal* position (§1.2.2.) is the second most common dominant position in spoken languages (Dryer 2013) but is beaten in popularity by languages with no dominant position (§1.2.3.) in sign languages (Coons 2022)⁵.

It is important to note, that while many of the world's languages display a dominant order of noun/nominal and property term, these same languages may display language-internal variation in the allowed positions. That is, a pre-nominal dominant language may also allow for post-nominal positions, although at a much lower rate than pre-nominal positions. This variation is especially prevalent in sign languages (Coons 2022: 15), but some spoken languages, such as Spanish and French also display variation in their PT position. However, for spoken languages (with a dominant order), other orders usually impact the meaning of the phrase, as is illustrated for Polish in Example (3) below.

(3) Polish

a. [*aktor* *komiczny*]

actor comical

‘an actor who can be classified as a comedy actor’

b. [*komiczny* *aktor*]

comical actor

‘an actor who is amusing and comic’

(Cetnarowska 2014: 224)

At present, it is still unclear why sign languages allow for more variation for PT position than spoken languages do, however, scholars have offered some possible explanations for the variation in sign languages. For ASL, it has been suggested that post-nominal PTs are in fact

⁵ Please note that in the present study, I am only interested in the sequential order of manual PTs. Non-manual modifiers that are uttered simultaneously with a manual modifiee have been described, for example, for ASL (Liddell 1980; Harmon 2016).

reduced relative clauses (Wang 2019: in Loos 2022). Moreover, studies on both ASL (Loos 2022) and NGT (Arvilommi & Kroesbergen 2025) have offered semantic types (see §1.1.2.) as a potential reason for variation in the position of PTs. Both studies found a non-significant trend for core PTs to allow for more flexibility in their position than non-core PTs. That is, while for neither study the results are statistically significant regarding the effect of semantic type on position, there still seems to be a slight trend for core PTs to be more flexible than non-core PTs.

Finally, another intriguing phenomenon regarding the position of PTs in sign languages is the so-called *sandwich construction*, which will be further discussed in §1.2.4. This construction has not been attested to be the dominant PT position in any language so far.

1.2.1. Post-nominal dominant languages

As explained above, the most common dominant position for property terms across modalities is the post-nominal position (Dryer 2013; Coons 2022). Some spoken languages that belong in this group are Irish, Spanish and Xhosa (Dryer 2013). Below are examples from Italian (4) and Apatani (5), an indigenous language of India (Ethnologue 2025). In both examples, the PTs follow the nouns which they modify, therefore appearing in the post-nominal position. The relevant NPs are indicated by square brackets, and the PTs are indicated in bold.

(4) Italian

<i>A volte</i>	<i>il</i>	<i>fare</i>	<i>uno</i>	[<i>scherzo</i> <i>cattivo</i>]	<i>lascia</i>
sometimes	ART.M.SG	make	ART.M.SG	joke bad	leave
<i>un</i>	[<i>gusto</i> <i>amaro</i>]				
INDEF.ART	taste	bitter			

‘Sometimes making a bad joke leaves a bitter taste’ (Maiden & Robustelli 2014: 49)

(5) Apatani

[<i>aki</i>	<i>atu</i>]
dog	small

‘a small dog’ (Abraham 1985: in Dryer 2013)

As for sign languages, Coons (2022) lists languages such as Polish Sign Language, Quebec Sign Language and Adamorobe Sign Language as belonging in this group. Below is an example from Italian Sign Language (LIS), which has been classified as a post-nominal

dominant language that, however, also features a significant number of pre-nominal PTs (Mantovan 2017). That is, PTs most commonly follow the noun, as in (6a), but it is not unusual for them to precede the noun either, as in (6b). Despite the fact that pre-nominal PTs are not uncommon, there is still a clear preference for the post-nominal position, making LIS a post-nominal dominant language.

(6) LIS

- a. LEAVE PARIS GO-TO [EXPERIENCE **BEAUTIFUL**]
‘I left and went to Paris; it was a beautiful experience’
- b. TRY GO-FOR-IT, FIRST STEP [**BEAUTIFUL** EXPERIENCE] GO-AHEAD
‘Give it a try; go for it. After the first step you’ll see it’s a beautiful experience and you’ll go ahead with it!’ (Mantovan 2017: 118)

1.2.2. Pre-nominal dominant languages

Pre-nominal dominant languages make up about 27% of spoken languages and 24% of sign languages (Dryer 2013; Coons 2022). It is important to note that Coons (2022) categorizes FinSL as a pre-nominal dominant language. However, as discussed in §1., for some languages, the classifications proposed in that study are based on examples taken from papers that are not concerned with PT position; rather PT position was inferred from examples illustrating some other phenomenon. FinSL is one of those languages, as none of the papers cited by Coons discusses the position of PTs.

A recent corpus-based study on colour terms in NGT revealed that there is a preference for pre-nominal positioning, but that the post-nominal position is also allowed (Pfau & Steinbach, in press). Findings from another recent corpus study suggest that the same preference extends to PTs of other semantic types as well (Arvilommi & Kroesbergen 2025). Pfau & Steinbach offer the examples in (7a) and (7b) as demonstrations of colour terms in the preferred pre-nominal position and the post-nominal position, respectively. Examples (7c) and (7d) further illustrate the use of a pre-nominal PT and a post-nominal PT, respectively.

(7) NGT

- a. IX₁ IX₃ [**BLACK-B** SNAIL] WITHOUT HAT
‘I (saw) a black snail without a hat there.’
- b. [STAMP **RED**] TRACE_{ON.H2} PALM.UP
‘There was a red stamp on the letter.’ (Pfau & Steinbach, in press: 13)

- c. IX₁ REALLY-WANT [DEAF CHILD] IX₁

‘I really wanted deaf children.’

- d. LATER [TIME DARK] BACK TO PARTY TOGETHER

‘When it started getting dark, we went to the party together.’

(Arvilommi & Kroesbergen 2025)

Another sign language that displays a preference for the pre-nominal position is ASL. As in NGT, the post-nominal position is also allowed, although, as mentioned earlier, some scholars have suggested that post-nominal PTs are actually reduced relative clauses, not PTs (see Loos 2022, and references cited therein, for further discussion of this topic). Example (8) below includes a clause in ASL with two pre-nominal PTs.

(8) ASL

[BIG RED BALL IX_{adv} i] BOUNCE

‘The big red ball over there is bouncing.’ (MacLaughlin 1997: in Loos 2022: 35)

Among spoken languages, the pre-nominal dominant position is found in languages such as English (Thomson & Martinet 1986) and Mising (Dryer 2013), an indigenous language of India (Ethnologue 2025), the latter of which is displayed in Example (9). Importantly for this paper, spoken Finnish is also a pre-nominal dominant language (Karlsson 2013). Examples (10a) and (10b) illustrate two different PTs in pre-nominal positions in Finnish.

(9) Mising

[*azóně* *dólun*]

small village

‘a small village’

(Prasar 1991: in Dryer 2013)

(10) Finnish

- a. [*iso* *auto*]

big car

‘a big car’

- b. [*sininen* *kukka*]

blue flower

‘a blue flower’

(adapted from Karlsson 2013: 75)

While spoken Finnish and FinSL are not related languages, they are languages used in the same country, with many native FinSL signers also being proficient in (written) Finnish. This is important to note, as language transfer may affect the way in which bilingual signers use FinSL. According to the *Institute for the Languages of Finland*, especially the older generation of FinSL signers may frequently use signed Finnish⁶ along with FinSL, as they were not allowed to use FinSL in school (Kotus, n.d.).

1.2.3. Languages without a dominant order

Languages without a dominant PT-nominal order make up about 8% of spoken languages and 34% of sign languages (Dryer 2013; Coons 2022). In these languages, property terms may either precede or follow the noun, and neither order is dominant over the other; also, the different orders do not come with different interpretations.

Spoken languages such as Esmeraldeño (Adelaar 2004: 155-156), a now extinct language spoken in Ecuador (Glottolog, n.d.), and Tagalog (Schachter & Otnes 1972: 122) fall into this category. Below are examples of clauses in Tagalog, illustrating the two possible PT positions in the language. In Example (11a) the PT ‘small’ precedes the noun ‘house’, while in Example (11b) the same PT follows the noun.

(11) Tagalog

- | | | | | | | |
|----|-----------------------|-------------|-----------|------------------------|-----------|------------------------|
| a. | <i>B<um>ili</i> | <i>silá</i> | <i>ng</i> | [<i>maliit</i> | <i>na</i> | <i>bahay</i>] |
| | <ACTFOC>buy | 3.PL | NOM | small | LK | house |
| b. | <i>B<um>ili</i> | <i>silá</i> | <i>ng</i> | [<i>bahay</i> | <i>na</i> | <i>maliit</i>] |
| | <ACTFOC>buy | 3.PL | NOM | house | LK | small |

Both: ‘They bought a small house.’ (adapted from Schachter & Otnes 1972: 122)

As for sign languages, Coons (2022) lists languages such as French Sign Language, British Sign Language and Russian Sign Language as languages with no dominant order. Below is an example from Taiwan Sign Language, in which PTs can be either pre-nominal or post-nominal but are always in the position closest to the noun (Zhang 2007).

⁶ Signed Finnish refers to the use of FinSL signs, while maintaining the grammar of spoken Finnish. It is essentially word-for-word direct translation of Finnish to FinSL.

(12) TSL

- a. [CUTE CAT] IX₁ LIKE
- b. [CAT CUTE] IX₁ LIKE

Both: ‘I like cute cats.’

(Lai 2005: in Zhang 2007: 65)

1.2.4. Sandwich constructions in sign languages

Sandwich constructions, which to date have only been observed in sign languages, can be divided into two different subtypes, *nominal sandwiches*, where the PT is sandwiched between two nominals, and *PT sandwiches*, where the nominal is sandwiched between two property terms. These constructions were first described for modifiers in sign languages by Mantovan (2017), who identified that LIS has both “repetition of the modifier” (i.e., *PT sandwich*) and “repetition of the noun” (i.e., *nominal sandwich*). Mantovan offers the examples in (13a) and (13b) as demonstrations of sandwich constructions in LIS; we should note, however, that in the latter, the modifier in question is a numeral, not a property term.

(13) LIS

- a. NOW ANYMORE, GO-BACK IX_LOC NEG, MUST [ANOTHER JOB ANOTHER]
‘At that time, I didn’t go back there; I had to find another job’
- b. THERE-IS [BED ACCOMMODATION TWELVE ACCOMMODATION]

‘It has twelve berths’

(Mantovan 2017: 118)

A later study on colour terms in NGT and DGS (see also §1.2.2.) identified sandwich constructions as a possible ordering for colour terms in these languages (Pfau & Steinbach, in press). They identified 21 occurrences of nominal sandwiches in DGS and offer the example in (14). As for sandwich constructions in NGT, Pfau & Steinbach only found one, but another recent study on PTs in NGT has expanded on this and identified multiple instances of both nominal sandwiches and PT sandwiches (Arvilommi & Kroesbergen 2025). Examples (15a) and (15b) below illustrate a PT sandwich and a nominal sandwich, respectively, in NGT.

(14) DGS

[ARCH **RED-1A** ARCH HIGH HOT] BURST COLLAPSE

‘The high hot red cupola burst and collapsed.’

(Pfau & Steinbach, in press: 18)

(15) NGT

a. [DIFFICULT QUESTION DIFFICULT]

‘Difficult question’

b. [TORTOISE SLOW TORTOISE] IX_{3a} WALK GO PARTY

‘The slow tortoise walks to a party.’

(Arvilommi & Kroesbergen 2025)

It is worth mentioning, that sandwich constructions involving PTs have not been studied to a great extent, and that there is a possibility that these constructions, just like other doubling phenomena, are strategies for encoding grammatical features, such as emphasis or focus. While this may be the case, the present study still includes both PT sandwiches and nominal sandwiches as possible PT positions in FinSL.

1.3. Research question & hypotheses

The current study aims to investigate the noun-phrase internal position of property terms in Finnish Sign Language (FinSL). It is expected that the findings from this study will align with previous claims made on the position of PTs in FinSL (Coons 2022). That is, FinSL is hypothesized to be a pre-nominal dominant language. However, as studies on PT position across sign languages have shown that sign languages tend to display considerable variation in PT position, it is also expected that the same applies to FinSL.

As for explanations for the possible variation of PT position in FinSL, I put forward two different hypotheses. First, following the investigations done on ASL (Loos 2022) and NGT (Arvilommi & Kroesbergen 2025), I suggest that this variation could be explained by semantic type, i.e., core PTs allowing for more flexibility than non-core PTs. Second, due to the categorization of PTs into NPTs and VPTs based on behaviour (Jantunen 2010), I suggest that this variation could be explained by the different behaviours of these two word classes.

I aim to also expand upon suggestions that have been made on PT classification in FinSL, as described in §1.1.4. I expect that my research could either provide evidence for or against the classification proposed by Jantunen (2010).

2. Methodology

The present study was conducted using publicly available data from the Corpus FinSL (University of Jyväskylä 2019; University of Jyväskylä 2024). Section §2.1. contains further information on the Corpus FinSL, and Section §2.2. elaborates on the search procedure. Finally, Section §2.3. describes the data annotation process. This research project has been

approved by the Ethics Committee of the Faculty of Humanities under project number FGW-6339_2025.

2.1. The Corpus FinSL

The Corpus FinSL consists of annotated video material from 91 signers of varying ages and from different parts of Finland. In the videos, the signers perform elicited narratives and freely discuss topics related to personal life and/or Deafness (Salonen, Kronqvist & Jantunen 2020). Out of this data, only the elicited narratives have been made publicly available. The elicited narratives consist of three different tasks: narrating cartoon strips (*Ferd'nand*), narrating from a video (*Mr. Bean* and *Laurel & Hardy* videos) and narrating from a picture book (*The Snowman* and *Frog, Where Are You?*). The public portion of the Corpus FinSL has been published in two parts, with the first part containing data from 21 signers (University of Jyväskylä 2019) and the second from 12 signers (University of Jyväskylä 2024). All 33 signers are from varying age groups and varying parts of Finland.

The video material in the corpus has been annotated using ELAN (Crasborn & Sloetjes 2008), and includes tiers for Corpus IDs, grammar and translations. Corpus IDs are used in place of glosses, and they are coded according to the manual form of the sign, not on the meaning. This means that the same Corpus ID may refer to multiple different meanings. The Corpus IDs are spread out over four different tiers, with each tier containing information regarding one of the hands of one of the signers. That is, the tier 'ID_1_oik' contains the Corpus IDs of everything signed using the right hand of Signer 1, whereas 'ID_2_vas' contains the Corpus IDs of everything signed using the left hand of Signer 2⁷. Similarly, there are four tiers for grammatical information, one for each hand of each signer (e.g. '@_1_oik' and '@_2_vas'). These tiers include notes for things such as compounds, reduplication and negation. The translation tiers – which there are two of, one for each signer (e.g. 'Käännös_1') – contain translations of signed clauses to written Finnish. Additionally, there are various tiers for notes, corresponding to the other three types of tiers. Figure 1 below shows an example of the tiers in ELAN. All annotations and translations in the Corpus FinSL have been made by people with native competency in Finnish Sign Language (see Salonen et al. 2016; Salonen, Kronqvist & Jantunen 2020 for more information on the creation of the creation of the corpus).

⁷ Please note that 'oik' and 'vas' in the tier names stand for the first three letters of the Finnish words for right ('oikea') and left ('vasen'), respectively.

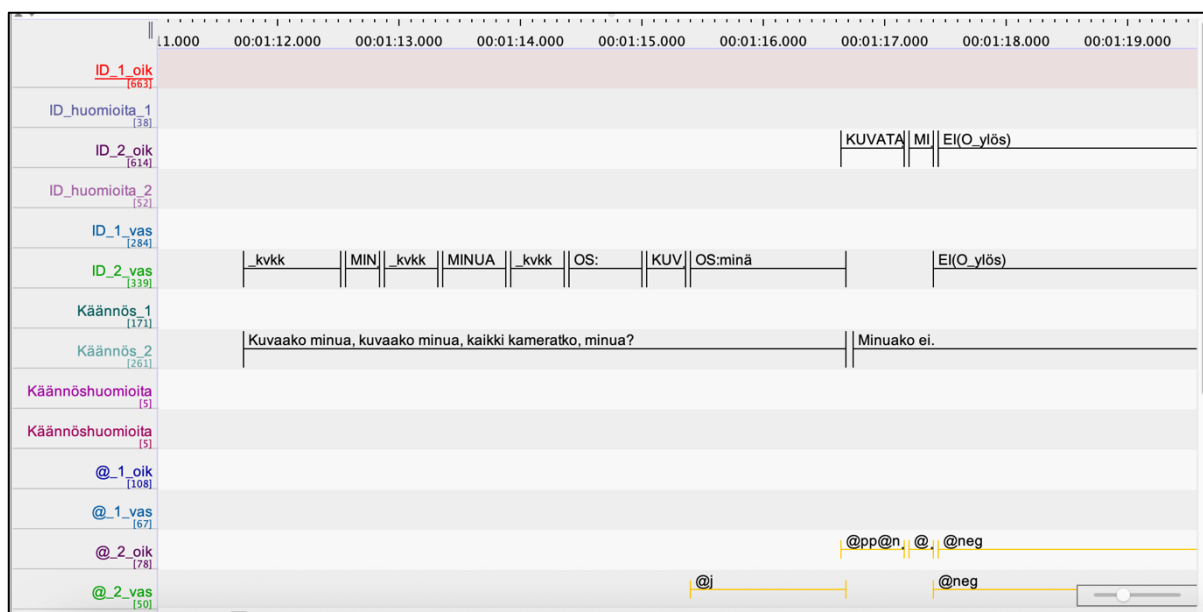


Figure 1. An example of the tiers used for annotation of the Corpus FinSL (CFINSL2014_015_04).

2.2. Search procedure

Prior to starting the actual search procedure, I had to create a list of items to look for in the corpus. As a starting point, and to make sure I included examples of all of the semantic types listed in §1.1.2., I used examples presented by Dixon (1982). These examples were then translated to Finnish, and the list was expanded with PTs that are likely to be commonly used in the language; at this stage I added PTs such as DEAF and HARD-OF-HEARING – both common signs in sign language corpora – to the list. Afterwards, I searched for all of the meanings in Finnish Signbank (University of Jyväskylä 2018) to find which Corpus IDs can represent the intended meaning. For example, the meaning LONG/TALL can be represented by three different Corpus IDs (i.e. manual forms), namely ENEMMÄN(L_loittoneva), ISO(L_ylös) and PITKÄ(P_leuka). More search items were added to the list throughout the search procedure, as I coincidentally encountered PTs that had not previously been included in the search. In total, I searched for 61 different PT meanings, out of which 20 yielded relevant search results. Table 1 below lists these 20 PTs, the Corpus IDs used to search for them, their semantic types, as well as the Finnish translation of each PT. A full list of all 61 PTs searched for can be found in the Appendix.

Table 1. A list of all search items that yielded relevant results.

Type	English	Finnish	Corpus ID(s)
Age / Newness	NEW	uusi	UUSI
	YOUNG	nuori	NUORI
	OLD	vanha	VANHA(P_otsa); VANHA(P_poski)
Colour	BLACK	musta	MUSTA
	WHITE	valkoinen	VALKOINEN
	RED	punainen	PUNAINEN
Dimension	BIG	iso	ENEMMÄN(L_loittoneva); ISO(5c); ISO(L_ylös); ISO(SS)
	SMALL	pieni	HALPA(Lq); PIENI(L_alas); PIENI(L_lähenevä); PIENI(P_leuka)
	LONG/TALL	pitkä/korkea	ENEMMÄN(L_loittoneva); ISO(L_ylös); PITKÄ(L_loittoneva)
Value	GOOD	hyvä	HYVÄ(Al)_ele; HYVÄ(Ax); HYVÄ(B); HYVÄ(F)
	BAD	huono	HUONO(Al); HUONO(G)
	FUN(NY)/NICE	hauska/mukava	HAUSKA(P_leuka); HAUSKA(P_rinta)
Human propensity	FAMOUS	kuuluisa	KUULUISA
Physical property	HARD	kova	KOVA(BB); KOVA(GB); VAHVA(SS)
	LIGHT (weight)	kevyt	KEVYT
	HOT	kuuma	KUUMA(BB); KUUMA(P_otsa)
	WARM	lämmin	LÄMMIN; LEMPEÄ(P_poski)
	COLD	kylmä	KYLMÄ; PALELLA(SS)
	BEAUTIFUL	kaunis	KAUNIS
	FINE	hieno	HIENO(FF); HIENO(YY)

The search was conducted using the ‘structured single layer search’ function on ELAN (Crasborn & Sloetjes 2008). I used the ‘exact match’ function and searched directly for the Corpus IDs of all of the search items. As a single Corpus ID may carry multiple meanings, each search result had to be individually checked to see if they were relevant – which is one of the most time-consuming parts of a corpus search. To better fit the scope of the study, the search was limited to Signer 1. Furthermore, to avoid getting duplicate results from two-handed signs in the search, I searched on the Corpus ID tier of the right hand only. That is, the search was conducted on the ‘ID_1_oik’ -tier.

2.3. Data analysis and annotation

All relevant hits were coded for semantic type, position (post-nominal/pre-nominal/PT sandwich/nominal sandwich) and word class (nominal/verbal). However, coding for word class turned out to be challenging, due to the minimal classification criteria provided in previous literature. According to Jantunen (2010) there are only three criteria for a VPT, two of which are based on negative evidence: (i) VPTs can display event structure, (ii) VPTs **cannot** be sentence-initial and (iii) there is an identical **absence of marking** on VPTs and prototypical verbals (see Section §1.1.3.). Based on these criteria, not a single one of the hits could be unambiguously coded as a VPT. Along with the coding of position and word class, the exact glossing and translation from the eaf-files were written down.

To ensure that the Corpus ID that I had searched for carried the intended meaning (e.g., that HALPA(Lq) meant SMALL), I checked whether the translation tier included that meaning. When the translation tier did not include the intended meaning, the search result was either excluded, if the non-intended meaning was not a PT, or included, if the non-intended meaning was a different PT than the one that was searched for. For example, some of the search results for FUN(NY) were translated as NICE; as both FUN(NY) and NICE are PTs, both meanings were included in the dataset. These results were grouped under the same search item. Somewhat similarly, the search for LIGHT (weight) and HARD yielded results where the meaning relates to intensity rather than *physical property*. In this case, there was no direct indication in the translation, as in both FinSL and Finnish HARD ('kova') and LIGHT ('kevyt') can be used to measure intensity. Thus, the intensity interpretation was inferred from the context. In both of these cases, the intended *physical property* meaning was grouped together with the non-intended intensity meaning.

Additionally, hits were excluded (i) if the PT was used as an adverbial, (ii) if the nominal that the PT was modifying was elided, and (iii) if the PT was clearly predicative or a predicative interpretation could not be excluded. The decisions on whether a PT fell into one of the categories listed was done largely based on the translations, but close attention was also paid to prosodic markers, such as scope of mouthings and other non-manuals. Furthermore, multiple results involving the PT SMALL were excluded, due to the likelihood of them being

part of a compound; this is discussed further in (§4.1.). Below is an example of a search result that was excluded due to the PT being used as an adverbial.⁸

(16) FinSL

ONE CL(ﷲ):‘person’ SING **BAD**

‘One (of them) sings badly.’

[CFINSL2015_030_03, 03:47]

3. Results

Table 2. A list of all of the PTs found in the search, showing the hits for each individual PT. In total, there were 82 relevant hits.

Type		English	Relevant hits
Core	Age / Newness	NEW	6
		YOUNG	1
		OLD	3
	Colour	BLACK	10
		WHITE	2
		RED	3
	Dimension	BIG	1
		SMALL	14
		LONG/TALL	1
	Value	GOOD	4
		BAD	1
		FUN(NY)/NICE	8
Non-core	Human propensity	FAMOUS	3
	Physical property	HARD	4
		LIGHT (weight)	3
		HOT	5
		WARM	3
		COLD	1
		BEAUTIFUL	5
		FINE	4
	Total	82	

Table 2 above provides an overview of all of the *property terms* that were found during the search, including the number of relevant search results (i.e. “hits”). Out of this dataset, 54 (66%) of the PTs were core PTs and 28 (34%) were non-core PTs. To find whether there was a significant difference in the amount of PTs in these groups, I conducted a Chi-square Goodness of Fit Test using the computer program R (R Core Team 2025), RStudio (Posit team

⁸ One instance of the nationality term ENGLISH – found while searching for FAMOUS – was excluded from the analysis, as terms of nationality are never discussed in relation to Dixon’s PT types (Dixon 1982; Dixon & Aikhenvald 2004).

2025) and the lsr package (Navarro 2015). The results show that there are significantly more core PTs than non-core PTs ($X^2(1) = 8.24, p = .004$) in the dataset.

In the following subsections I first describe the results of the data analysis that was conducted to determine the dominant PT position in FinSL (§3.1.), after which I provide the results of the analyses conducted to account for variation in the dataset (§3.2.).

3.1. Determining the dominant PT position

The vast majority (88%) of all PTs in the dataset appear in a pre-nominal position, with only 8 instances (9.8%) of PTs in a post-nominal position and 2 instances (2.4%) in sandwich constructions. To confirm the significance of these findings, I conducted a Chi-square Goodness of Fit Test using the computer program R (R Core Team 2025), RStudio (Posit team 2025) and the lsr package (Navarro 2015). The results show that in FinSL PTs do indeed have a significant preference for the pre-nominal position ($X^2(3) = 174, p < .001$). An overview of the PT positions that were found in the search is provided in Table 3.


Table 3. An overview of the PT positions that were found in the search, separated by PT.

	Pre-nominal	Post-nominal	PT sandwich	Nominal sandwich
NEW	6	-	-	-
YOUNG	1	-	-	-
OLD	3	-	-	-
BLACK	7	2	-	1
WHITE	1	1	-	-
RED	3	-	-	-
BIG	-	1	-	-
SMALL	10	3	1	-
LONG/TALL	1	-	-	-
HARD	4	-	-	-
LIGHT (weight)	3	-	-	-
HOT	5	-	-	-
WARM	3	-	-	-
COLD	1	-	-	-
GOOD	4	-	-	-
BAD	1	-	-	-
BEAUTIFUL	5	-	-	-
FINE	4	-	-	-
FUN(NY)/NICE	8	-	-	-
FAMOUS	2	1	-	-
Total	72	8	1	1

To illustrate the behaviour of PTs, Example (16) below includes examples of BLACK in a pre-nominal position (16a) and a post-nominal position (16b). Further examples of pre- and

post-nominal PTs in the dataset are included in §4.1 and §4.3. Examples of the two sandwich constructions can be found in §4.2.

(17) FinSL

- a. SEARCH IX_{3a} YES ACHIEVE IX_{3a} [BLACK COAL]
 ‘(The boy) continues searching, (he) found black coal.’ [CFINSL2015_033_05, 01:15]
- b. CL(

3.2. Accounting for variation

Although I only found limited variation regarding PT position in the data, it was still necessary to account for variation and investigate the two hypotheses I put forward (see Section §1.3.). However, as described in Section §2.3., none of the PTs that were included in the dataset were coded as VPTs. This made it impossible to address the possibility that word class has an effect on PT position. Fortunately, the dataset included PTs of multiple different semantic types, allowing me to investigate the other hypothesis I had put forward.

I conducted a Chi- square Test of Independence (also known as Association Test) using the computer program R (R Core Team 2025), RStudio (Posit team 2025) and the lsr package (Navarro 2015) to examine whether ‘position’ and ‘semantic type’ are independent from each other, i.e., whether core type PTs are more likely than non-core PTs to appear in a specific position, or vice versa. The results show that there is no significant effect here ($X^2(3) = 3.06$, $p = .382$). Table 4 below illustrates how the various PT positions are distributed across core and non-core PTs. For further discussion on the variation found in the data, see Section §4.3.

Table 4. Overview of the distribution of different PT positions across core and non-core PTs.

	ALL	CORE	NON-CORE
PRE-NOMINAL	72	45	27
POST-NOMINAL	8	7	1
PT SANDWICH	1	1	0
NOMINAL SANDWICH	1	1	0
TOTAL	82	54	28

4. Discussion


In the previous section, I provided overviews of the dataset, primarily regarding the distribution of PT position, as well as results of the statistical tests that were run to determine

the significance of the findings. In this section, I will further discuss the implications of these findings, supported by examples from the dataset. First, in Section §4.1. I discuss the general behaviour of property terms in FinSL. Then, in Section §4.2. I turn to the two sandwich constructions found in the data, after which, in Section §4.3. I further discuss the attested patterns of variation. Then, in Section §4.4. I present a brief re-evaluation of the classification of property terms in FinSL. Finally, Section §4.5. is dedicated to discussing the limitations of this study, as well as offering suggestions for future research.

4.1. General behaviour

This study finds that FinSL is a pre-nominal dominant language, as was hypothesised based on the suggestions made by Coons (2022) in her typological overview. This means that in FinSL, the majority of PTs occupy the pre-nominal position, but there is still variation to be found as well. This is in line with previous research into PT position in sign languages, which suggests that some variation in position is a common phenomenon in languages with a dominant order (Mantovan 2017; Coons 2022; Loos 2022; Arvilommi & Kroesbergen 2025; Pfau & Steinbach, in press). Example (18) below provides four examples of pre-nominal PTs in FinSL. The first two examples (18a-b) show the core PTs NICE and SMALL preceding the nominals CLOTHES and BOY, respectively. Similarly, the latter two examples (18c-d) show the non-core PTs HOT and BEAUTIFUL preceding the nominals FIREPLACE and SNOW^MAN, respectively.


(18) FinSL

- a. IX₃ SNOW^MAN CL(

To illustrate some of the variation found in the data, Example (19) below contains a post-nominal BIG, which, interestingly, was the only instance of BIG found in the data. Variation

is discussed further in §4.3., supported by examples of one and the same PT in various positions.

(19) FinSL

SHORE SEA SHORE BE [PIER **BIG**] CL(


‘(There is) a big pier on the seashore.’ [CFINSL2014_018_05, 05:37]

In addition to confirming the dominant PT position in FinSL, the data provides a look into another interesting phenomenon regarding the general behaviour of PTs. In the data, PTs seem to quite commonly modify classifier constructions instead of lexical nominals. This seems to especially apply when the nominal that is being modified is referring to a body part, as in Example (20a), or when the nominal that is being modified is embedded into a classifier construction that also functions as the predicate of the clause⁹, as in Example (20b). Previous literature has found that property terms in sign languages may be either lexical or classifiers (see, for example Jantunen 2010; Rubio-Fernandez et al. 2022), however, to the best of my knowledge, lexical property terms modifying classifier constructions, as in the examples below, has not been described before.

(20) FinSL

- a. TO-BE-SURPRISED FATHER DONE [**BLACK** CL(

‘How about it, dad got a black eye.’ [CFINSL2014_014_03, 00:40]

- b. MAN SNOW^MAN MAN IX LOOK CL(

‘The snowman wants to try himself and so he turns the tap, which makes hot steam rise into the air.’ [CFINSL2014_012_05, 08:30]

Another interesting phenomenon was found when searching for the PT SMALL. At first sight, it seemed that SMALL was frequently used in a post-nominal position; on closer inspection, however, it turned out that in many of these instances, SMALL is likely part of a compound. Specifically, this PT followed the nominal MAN, forming the compound MAN^SMALL (‘boy’). The decision to analyse these instances as compounds instead of post-nominal PTs was reached based on translations and mouth actions. That is, if the translation did not include the word ‘small’ and if the mouth action was either unclear, or included a mouthing of ‘boy’ spreading over both MAN and SMALL, the utterance was analysed as a


⁹ In FinSL these types of classifier constructions are considered to be a type of verbal, namely a Type 3 verbal. See Jantunen (2010) for further explanation on the types of verbals in FinSL.

compound. In total, six search results were excluded as a result of receiving a compound interpretation.

4.2. Sandwich constructions

During the search, only two instances of PTs in sandwich constructions were found, out of which one was a nominal sandwich and the other a PT sandwich. This is somewhat expected, as sandwich constructions have been the least common PT position in all studies that identified them as one of the strategies for ordering PTs vis-à-vis the noun (Mantovan 2017; Arvilommi & Kroesbergen 2025; Pfau & Steinbach, in press). As briefly mentioned in Section §1.2.4., research into sandwich constructions, with regard to modifier position, has only just begun. Considering the limited research into this topic and the rareness of sandwich constructions in the data, it is not possible to draw any conclusions on the function of these constructions. That is, it is certainly a possibility that these sandwich constructions are used to create emphasis or to mark some other pragmatic and/or grammatical function. The two sandwich constructions in the dataset are provided in Example (21). In (21a), the nominal SAND creates a nominal sandwich by being placed on both sides of the PT BLACK. Notably, in (21b), the sandwich construction involves a classifier, not a lexical nominal. The classifier in question carries the meaning of ‘flower on the lapel’, including both the nominal ‘flower’ and its location. This classifier is sandwiched in between two instances of the PT SMALL, creating a PT sandwich.

(21) FinSL

- a. REALISE CL(

4.3. Patterns in variation

Even though the present study was unsuccessful in determining the cause for variation in PT position, the findings still provide valuable insight into the patterns in variation. As summarized in Table 5 below, variation in PT position is found for both core and non-core PTs. Furthermore, it should be pointed out that neither all core PTs nor all non-core PTs pattern

alike and that variation was found for only five out of the 20 different PTs, with only four of those appearing in multiple different positions – BIG was only found in a post-nominal position, as illustrated in Example (19).

Despite variation occurring for both core and non-core PTs, it is worth noting that core PTs were found in non-dominant positions (i.e. post-nominal, PT sandwich or nominal sandwich) nine times, while non-core PTs were found in non-dominant positions only once. That is, 83% of core PTs and 96% of non-core PTs are in a pre-nominal position. Additionally, sandwich constructions were found only for core PTs. Overall, this study aligns with both Loos (2022) and Arvilommi & Kroesbergen (2025), in that there is a non-significant trend for core PTs to allow for more flexibility in their phrasal position than non-core PTs. That is, even though the results indicate that there is no significant effect of semantic type on PT position, it still seems as if core PTs display slightly more variation in their position than non-core PTs do.

Table 5. A summary of which semantic types displayed variation.

Semantic type		PTs found in the search	Variation in position?
Core	Age / Newness	NEW, YOUNG, OLD	No
	Colour	BLACK, WHITE, RED	Yes
	Dimension	BIG, SMALL, LONG/TALL	Yes
	Value	GOOD, BAD, FUN(NY)/NICE	No
Non-core	Human propensity	FAMOUS	Yes
	Physical property	HARD, LIGHT (weight), HOT, WARM, COLD, BEAUTIFUL, FINE	No
	Speed	-	-

The only instance of variation in non-core PTs was found for FAMOUS, which is interesting, as it had been very difficult to determine what the semantic type of FAMOUS is. The classification of FAMOUS is never directly addressed by Dixon (1982) but is instead indirectly mentioned as being either *human propensity* or *physical property* in Dixon & Aikhenvald (2004: 76). Through descriptions of the derivational processes of PTs of different semantic types, particularly of PTs of *physical property* (Dixon 1982: 22), I was able to deduce that FAMOUS is a PT of *human propensity*. However, this should be taken with a grain of salt, as FAMOUS can refer not only to humans but also to objects, animals, locations and even concepts (e.g., ‘famous movie/cathedral’). Example (22a) below shows FAMOUS in a post-nominal position and is the only instance of variation among non-core PTs. Example (22b) provides an example of FAMOUS in the expected pre-nominal position. Note that (22b) includes another property term, FUNNY, which modifies the same nominal as FAMOUS does. FUNNY is not in bold, as it is not relevant to the discussion at hand.

(22) FinSL

- a. SAME ADD [PERSON **FAMOUS**] NAME #K-U-S-T-A-A #K-I-L-L-I-N-E-N

‘Also, additionally, a famous person called Kustaa Killinen.’

[CFINSL2014_015_04, 09:56]

- b. ONE MAN ACT^PERSON [**FAMOUS** FUNNY MAN^PERSON] SLEEP LAY SLEEP ELE

‘A man, an actor, a famous funny man, sleeps deeply.’

[CFINSL2015_031_04, 04:53]

As pointed out earlier, not all core PTs pattern alike, which means that other distinctions might also be relevant. Out of all of the core types in the dataset, only *dimension* and *colour* show variation in PT position. Furthermore, these semantic types are also the only ones to appear in sandwich constructions, as illustrated in Example (21). This is different from ASL, where variation in position was found for all of the core PTs included in the dataset¹⁰, as well as NGT, where variation in position was found in all core types but *age/newness* (Loos 2022; Arvilommi & Kroesbergen 2025; Pfau & Steinbach, in press). It should be noted, that for both ASL and NGT, variation was also more frequently found for non-core PTs when compared with FinSL. The fact that *colour* and *dimension* pattern alike in FinSL is even more interesting when compared to the findings of a recent study on ASL (Rubio-Fernandez et al. 2022), which suggests that absolute PTs (such as *colour*) more frequently appear in the pre-nominal position than scalar PTs (such as *dimension*). Example (23) below includes two instances of the *dimension* PT SMALL in different positions. In (23a) the PT is in the expected pre-nominal position, while in (23b) it follows the nominal.

(23) FinSL

- a. BELONG SEA CENTER [**SMALL** ISLAND]

‘In the middle of the sea, there is a small island.’

[CFINSL2014_020_03, 03:51]

- b. BE-FRIGHTENED [MY OFFSPRING **SMALL**] OTHER WHAT NEIGHBOUR BOY START FIGHT

‘Horried: “My small son and the neighbour’s son have started fighting!”’

[CFINSL2015_031_04, 04:53]

Both *dimension* and *colour* refer to physical properties, and more specifically visual properties, as opposed to *age/newness* and *value*, which refer to relatively abstract concepts. This suggests that perhaps core PTs that encode visual properties of a referent allow for more variation than other PTs, both core and non-core, do. This is a rather interesting hypothesis, as

¹⁰ It should be noted that Loos (2022) did not include PTs of *value* in her dataset.

sign languages make use of the visual-spatial modality, which might imply that paying attention to visual descriptors is more important when compared to other descriptors. That said, typological research into flexible word order in discourse-pragmatics has suggested that pre-posed elements tend to be (*thematically*) *important* or *unpredictable*, whereas post-posed elements are the opposite (see, for example, Givón et al. 1988). This is rather curious, as it then implies that post-nominal PTs of *colour* and *dimension* are in fact (thematically) unimportant. However, it should also be noted that in some sign languages, for example FinSL and ASL (Jantunen 2010; Rubio-Fernandez 2022), it has been suggested that Shape and Size Specifiers (SASS) – classifier constructions which almost exclusively describe the visual qualities of the referent – have a preference for the post-nominal position, which might in turn imply that visual descriptors, regardless of (*thematic*) *importance* or *unpredictability*, are more likely to be post-posed than other modifiers. In any case, further research is required to investigate the significance of this pattern and the potential reasons behind it.

Finally, it should be mentioned that we cannot exclude the possibility that for at least some of those PTs with variable position, there are different interpretations for different positions. This is rather common in spoken languages, where the position of a PT can create nuance in meaning, as is illustrated for Polish in Example (3) in Section §1.2. However, differences in interpretation are difficult to establish based on corpus data.

4.4. Re-evaluating the classification of PTs in FinSL

This study finds no evidence for or against the suggestions made for PT classification in FinSL, namely, that a word class of *adjectives* does not exist, but that PTs are divided into verbals and nominals (Jantunen 2010). However, interestingly, none of the PTs included in the dataset were coded as verbals. Furthermore, most, if not all examples of verbal PTs in previous literature have been predicative, as demonstrated in Example (2a) in Section §1.1.3., repeated here as Example (24). This brings up the possibility, that the distinction made in previous literature between VPTs and NPTs is in fact the distinction between attributive PTs and predicative PTs. More research on this topic is needed to truly re-evaluate the classification of PTs in FinSL.

(24) FinSL

[GIRL HAPPY]

‘The girl is happy.’

(Jantunen 2010: 23)

4.5. Limitations and future research

As the publicly available part of the Corpus FinSL only consists of elicited data, and more specifically of retellings of a select few stories, the PTs found are limited to only PTs that are relevant to those stories. This means that some PTs that are present in the full corpus were not found in the portion of the corpus used in the present study. In fact, all 61 search terms (see the Appendix) can be found in the full corpus, as confirmed by the Finnish Signbank (University of Jyväskylä 2018). Furthermore, the limited content led to the majority of instances of a given PT appearing in constructions similar to each other. For example, 64% (9 out of 14 relevant search results) of SMALL appeared in constructions with the meaning “small boy”. It is possible that this may have affected the results. The dataset was further limited by the search procedure, where only one of the two signers in each video were accounted for, as explained in Section §2.2. To account for the effect of the limited dataset on the results, a larger-scale study should be done using the full Corpus FinSL and data from both signers in a given video.

5. Conclusion

This study aimed at contributing to bridging the research gap on PT position in sign languages, by investigating the NP-internal position of PTs in FinSL. A corpus search was conducted, providing a dataset of 82 instances of PTs. An analysis of these results finds that FinSL is a pre-nominal dominant language with some variation in position, as hypothesized. The cause of this variation requires further investigation, as neither of the two hypotheses that were put forward were confirmed. That is, no significant effect of word class or semantic type on position was found in the data. However, a different pattern was found; all except one instance of variable position (i.e. not pre-nominal) were found for PTs of *colour* and *dimension*, both of which are used to describe the visual characteristics of the referent. More research is needed to find whether this is a significant pattern, and to investigate the potential cause of this pattern. Moreover, a further analysis of previous literature in light of the findings of the study suggests that the classification of PTs in FinSL may be in need of re-evaluation.

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List of abbreviations

ASL	American Sign Language
DGS	German Sign Language
FinSL	Finnish Sign Language
LIS	Italian Sign Language
NGT	Sign Language of the Netherlands
NP	noun-phrase
NPT	nominal property term
PT	property term
SASS	Shape and Size Specifier
TSL	Taiwan Sign Language
VPT	verbal property term

Notation & glossing conventions

[CFINSLXXXX_XXX_XXX, XX:XX]	corpus citation; [[file name], [time stamp]]
#A-B	fingerspelled letters
1	first person
2	second person
3	third person
ACTFOC	actor focus
ART	article
CL()’meaning’	classifier construction; the handshape is specified between the brackets
ELE	the Finnish word for ‘gesture’; it represents a large variety of non-lexical linguistic elements
IX	index; pointing sign
LK	linking word
M	masculine
NOM	nominative
PL	plural
SG	singular
SIGN-SIGN	one sign is represented by multiple English words
SIGN^SIGN	compound sign
SIGN _x	the subscript next to a gloss indicates person agreement or location

Appendix

Type	English	Finnish	Corpus IDs (glosses)	Relevant hits
Age / Newness	NEW	uusi	UUSI	6
	YOUNG	nuori	NUORI	1
	OLD	vanha	VANHA(P_otsa); VANHA(P_poski)	3
Colour	BLACK	musta	MUSTA	10
	WHITE	valkoinen	VALKOINEN	2
	RED	punainen	PUNAINEN	2
	BLUE	sininen	SININEN	0
	GREEN	vihreä	VIHREÄ(SS); MAA(O_ylös)	0
	YELLOW	keltainen	KULTA; PUUKKO	0
	BROWN	ruskea	RUSKEA	0
	PURPLE	violetti	VIOLETTI	0
	PINK	vaaleanpunainen	VAALEANPUNAINEN	0
	ORANGE	oranssi	ORANSSI(OG); ARKI; IKÄ(P_poski); KULTA	0
	GREY	harmaa	HARMAA	0
	LIGHT (colour)	vaalea	PÄIVÄ(BB)	0
	DARK	tumma	YÖ	0
Dimension	BIG	iso	ENEMMÄN(L_loittoneva); ISO(5c); ISO(L_ylös); ISO(SS)	1
	SMALL	pieni	HALPA(Lq); PIENI(L_ alas); PIENI(L_lähenevä); PIENI(P_leuka)	14
	LONG/TALL	pitkä	ENEMMÄN(L_loittoneva); ISO(L_ylös); PITKÄ(L_loittoneva)	1
	SHORT	lyhyt	PIENI(L_ alas), PIENI(P_leuka), PÄTKÄ	0
	WIDE	leveä	ENEMMÄN(L_loittoneva)	0
	NARROW	kapea	PIENI(L_lähenevä)	0
Value	GOOD	hyvä	HYVÄ(AI)_ele; HYVÄ(Ax); HYVÄ(B); HYVÄ(F)	4
	BAD	huono	HUONO(AI); HUONO(G)	1
	FUN(NY)/NICE	hauska	HAUSKA(P_leuka); HAUSKA(P_rinta)	8
Human propensity	THIN	laiha	LAIHA(P_vartalo)	0
	FAT	lihava	LIHAVA(55); LIHAVA(Y); LIHAVA(YB); LIHAVA(YY)	0

Type	English	Finnish	Corpus IDs (glosses)	Relevant hits
	HAPPY	iloinen	HAPPY; ILOINEN; SYDÄN(B)	0
	SAD	surullinen	SURU	0
	ANGRY	vihainen	VIHAINEN	0
	CLEVER	älykäs	ÄLYKÄS	0
	WISE	viisas	VIISAS	0
	STUPID	tyhmä	TYHMÄ	0
	KIND	kiltti	KILTTI	0
	MEAN	ilkeä	JULMA	0
	DEAF	kuuro	KUURO(P_korva); KUURO(P_suu)	0
	HEARING	kuuleva	KUULLA(G)	0
	HARD-OF-HEARING	huonokuuloinen	HUONOKUULOIDEN(Bc) ; HUONOKUULOIDEN(G)	0
	SICK	sairas	SAIRAS	0
	HEALTHY	terve	HYVINVOINTI	0
	CRAZY	hullu	AIVOT(G); HULLU	0
	CURIOUS	utelias	UTELIAS	0
	FAMOUS	kuuluisa	KUULUISA	3
Physical property	HARD	kova	KOVA(BB); KOVA(GB); VAHVA(SS)	4
	SOFT	pehmeä	PEHMEÄ; TOMAATTI	0
	HEAVY	painava	PAINAVA; RASKAS	0
	LIGHT (weight)	kevyt	KEVYT	3
	SMOOTH	sileä	PUHDAS; TASAINEN	0
	HOT	kuuma	KUUMA(BB); KUUMA(P_otsa)	4
	WARM	lämmin	LÄMMIN; LEMPEÄ(P_poski)	3
	COLD	kylmä	KYLMÄ; PALELLA(SS)	1
	CHILLY	viileä	KYLMÄ	0
	SWEET	makea	MAKU; TEHDÄ-MIELI	0
	SOUR	hapan	ILME-HAPAN; KATKERA	0
	BEAUTIFUL	kaunis	KAUNIS	5
	UGLY	ruma	RUMA	0
	STRONG	vahva	VAHVA(P_hauis); VAHVA(SS)	0
	WEAK	heikko	HEIKKO	0
	FINE	hieno	HIENO(FF); HIENO(YY)	4
Speed	FAST	nopea	HETI(GB); HETI(L_loittoneva); KUMOTA; VAUHTI	0
	SLOW	hidas	HIDAS; VIIPYÄ(Al)	0