

## Editorial

The editors of FULL are pleased to announce the second issue of the second volume of the journal. Our journal is meant to provide a platform for linguistic research on modern and older Finno-Ugric or other Uralic languages and dialects, comparative research as well as research on single languages, with comparison of just Finno-Ugric languages or comparison across family lines, with formally or empirically oriented papers.

We have adopted the new policy of publishing papers for a given issue as soon as they have gone through the reviewing and editing process, in order to ensure that the publication is as quick as possible. The paper published now is the first of three papers projected for the present issue. It is about the interplay of prosody, information structure, and word order in Finnish. We hope you will find it interesting and useful.

We wish to thank all the anonymous reviewers who generously lent their time and expertise to make sure that each submission is carefully vetted and fairly assessed. Their constructive criticism ensures the consistently high quality of our contributions. Our special thanks go to Orsolya Tánczos, whose dedicated and painstaking editorial assistance has made the editing of this issue possible.

Our papers can be freely accessed and downloaded without any need for prior registration. At the same time, those who register, or have already registered, are provided with the benefit of getting notified of new issues, calls, etc. via the occasional email. FULL welcomes manuscripts from all the main branches of linguistics, including phonology, morphology, syntax, semantics and pragmatics, employing a diachronic or synchronic perspective, as well as from first language acquisition and psycholinguistics. Whatever the theoretical or empirical orientation of the contributions may be, our leading principle is to maintain the highest international standards.

The Editors

Acknowledgment of sponsorship:

The journal's publication has been partially supported by a TÁMOP project no. 4.2.2. BTK NYDI-II.2.-3., funded by the European Union.

# The Role of Syntactic Flexibility and Prosody in Marking Given / New Distinctions in Finnish\*

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One of the most fascinating aspects of Finnish grammar is the number of different information structure marking devices speakers have at their disposal, using syntax, prosody and morphology. The present article empirically investigates the interplay of syntax and prosody by analysing semi-spontaneous speech with variable word order and comparing it to scripted speech. The main object of attention lies in a detailed analysis of the phonetic correlates of new and focused words obtained in an experiment eliciting localisation expressions. While speakers of the scripted data used standard SVO word order, participants in our study were free to choose the most suitable word order. Speakers made extensive use of syntactic marking of information structure when this option was available, while prosodic marking was more pervasive when syntactic variability was excluded. Based on this interplay, we suggest a link between discourse configurationality and prosodic phrasing, arguing that both conspire for an optimal marking of information structure.

Keywords: *Finnish, information structure, prosody, syntax*

## 1 Introduction

Finnish is well-known for being a discourse-configurational language. That is, while word order is basically free, variations express differences in information structure. According to Vilkuna (1989, 1995), sentences can thus be divided into K-position, T-position and V-field, as illustrated in Table 1.<sup>1</sup> While topical ele-

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\*We would like to thank Jussi Niemi for allowing us to use the laboratory of the Department of Linguistics at the University of Joensuu (now part of the University of Eastern Finland) and John Niemi for help in conducting the experiment, as well as Marja Kilpiö for transcriptions and glosses. We also thank Stavros Skopeteas and Georg Höhn for morpho-syntactic annotation and Eva Meßmer and Verena Thiessen for cutting and annotating sounds. We are also grateful to Anne-Michelle Tessier, Heete Sakai and two anonymous reviewers for their constructive comments. Finally, we thank Maeghan Jerry and Thea van Diepen for English language editing.

<sup>1</sup> Vilkuna (1995) provides both an LFG and a GB-account, which identifies the K-position as Spec,CP for nominals and C for finite verbs, while the T-position corresponds to Spec,IP and the V-field is identified with V'.

Table 1: Division of Finnish sentences into K-position, T-position and V-field (adapted from Vilkuna, 1995, 245).

K-position	T-position	V-field	
	Anna <sub>S</sub>	sai <sub>V</sub>	kukk-i-a <sub>O</sub> .
	Anna.NOM	got	flower-PL-PRT
	‘Anna got flowers’.		
	Kukkia <sub>O</sub>	sai <sub>V</sub>	Anna <sub>S</sub> .
	‘Anna got the flowers’.		
Kukkia <sub>O</sub>	Anna <sub>S</sub>	sai <sub>V</sub> .	
	‘It is was flowers that Anna got’.		
Anna <sub>S</sub>	kukkia <sub>O</sub>	sai <sub>V</sub> .	
	‘It is was Anna who got flowers’.		
Sai <sub>V</sub>	Anna <sub>S</sub>	kukkia <sub>O</sub> .	
	‘Anna did get flowers’.		

ments are usually realised in the T-position, that is, directly preceding the finite verb, contrastive elements—both topics and foci—usually occupy the preceding K-position (also see Vallduví & Vilkuna, 1998). The default position for non-contrastive foci is sentence-final.

However, syntactic variation is by no means the only way of marking information structure in Finnish. Prosodic effects have also been reported, with research mostly concentrating on the notion of focus. Several studies detected an expansion of pitch range on narrowly focused words (Välímää-Blum, 1988, 1993; Mixdorff et al., 2002; Vainio & Järvikivi, 2006, 2007), and effects on duration (Mixdorff et al., 2002; Suomi, 2007) and intensity (Vainio & Järvikivi, 2007) have also been described. Interestingly, Vainio & Järvikivi (2006, 2007) found that speakers compensated for information-structurally inappropriate word orders by using prosodic correlates and that listeners were sensitive to both prosody and word order in judging prominence of words in short sentences.

Finally, information structure also plays an important role in the meaning and use of certain clitics like *-kin* ‘also’, although it is often difficult to pinpoint their semantic and pragmatic meaning precisely (see Nevis, 1986, and the references therein).

- (1) Jussi kävi-kin kotona.  
 Jussi went-also home  
 ‘Jussi did too come home’. (from Nevis, 1986, 10)

The present article investigates the contribution of syntactic and prosodic

correlates of information structure and the interplay between them by analysing data from a semi-spontaneous production experiment. In this study, participants uttered descriptions which systematically induced information structural variations. Crucially, the experimental design enabled participants to choose freely between syntactic, prosodic and morphological means for marking information structure. The two following research points guided the analysis of the resulting data. First, the use of morpho-syntactic means, more specifically word order variation, and second, the comparison of prosodic information structure marking to findings from a previous study using scripted material with invariable canonical word order are investigated in detail (use of clitics was infrequent and is not discussed in the present article). The results confirmed the hypothesis that speakers make systematic use of syntactic variability when available. Additionally, they also employed prosodic markers, however less pervasively than in the absence of this option. On the basis of these results, we argue that syntax and prosody conspire towards an optimum of information structure marking, in which the new and focused constituent is final, both syntactically and prosodically.

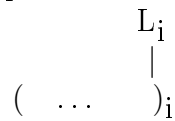
In analysing effects of information structure, we mainly concentrate on the distinction between new and given elements, i.e. those that are newly introduced into a discursive context and those that are previously mentioned in discourse (for a discussion of givenness, see e.g. Gundel et al., 1993; Krifka, 2008). Additionally, new material was generally focused, while given material was part of the background. Thus, two distinct levels of information structure—the divisions into given/new and focus/background—largely overlap in the reported data. However, the analysis primarily considers information status (given vs. new), since the experimental design directly manipulated this factor.

The following prosodic analysis is based on Arnhold (2013). It makes use of two levels of prosodic phrases, intonation phrases (i-phrases) and prosodic phrases (p-phrases), as shown in (2). The highest prosodic domain considered in this paper is the i-phrase which is frequently marked by final creaky or breathy voice and is the domain of pitch downtrend phenomena (e.g. Iivonen, 1998). In line with Välimaa-Blum (1993), we also tentatively assume that i-phrases have a final low boundary tone  $L_i$ . Furthermore, we describe Finnish as a phrase language in terms of the phrase-level prosodic typology suggested by Féry (2010), i.e. it shows little variation in the choice of phrasal tones, but instead makes prosodic distinctions through changes in phrasing. In line with this, we assume that what has traditionally been described as a rising-falling accent, appearing on most Finnish content words, is instead the results of two tones associated with the p-phrase,  $H_p$  and  $L_p$  (see the example Figure 1, analysed in (3)). Prosodic phrasing in Finnish, and in particular its correspondence with syntactic units, requires future research. In the present context, it is relevant to note that content words tend to form p-phrases of their own, although larger p-phrases spanning complete NPs or PPs also occur.

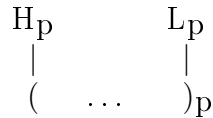
Finite verbs constitute an exception. They are traditionally described as accentless unless in narrow focus (Välimaa-Blum, 1993; Iivonen, 1998) and mostly form a p-phrase together with their objects in broad focus SVO sentences as discussed in section 2. However, verbs phrasing together with the preceding subject, as in (3), are likewise frequent.

(2) Prosodic phrases in Finnish

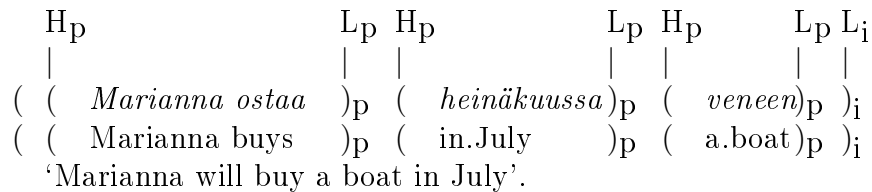
a. i-phrase



b. p-phrase



(3) Prosodic phrasing in a short Finnish sentence



The remainder of this article is structured as follows: Section 2 summarizes the effects of information structure on prosody in an experiment with simple short sentences in standard word order. It provides a background for the investigation of the use of prosody in the experiments. Section 3 introduces the materials analysed in the main body of the article, before section 4 lays out the hypotheses and section 5 the results. The syntactic analysis is reported in subsection 5.1. The following subsections analyse the prosodic measures that showed effects in fixed word-order materials to see whether they exhibited the same effects in our study, where word order was free. Section 6 contains a discussion and conclusion.

## 2 Prosodic information structure marking with fixed standard word order

This section provides a background for the analysis of the materials. As a first step, it summarises the prosodic information structure marking observed in a scripted production experiment. In this experiment, participants uttered short sentences in fixed unmarked word order as answers to pre-recorded questions eliciting different

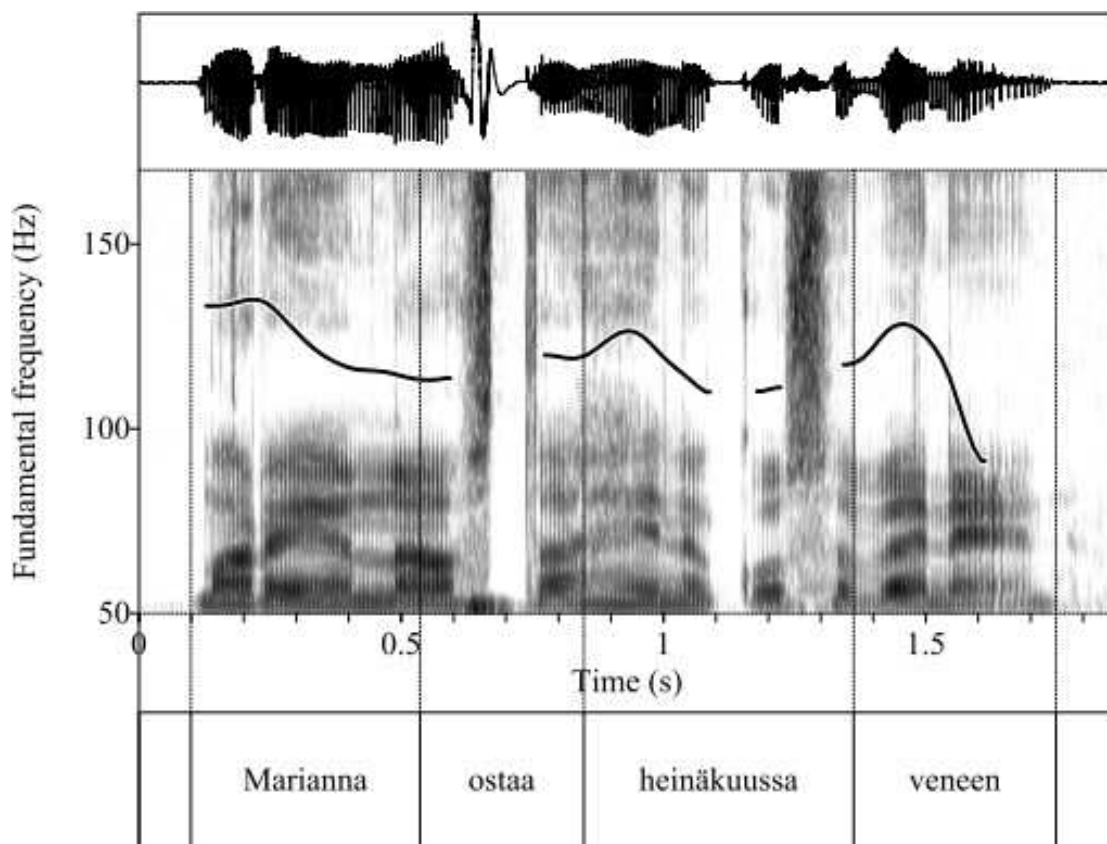


Figure 1: Realisation of the short Finnish sentence in (3).

information structures (described in more detail in Arnhold, 2013, a preliminary analysis was also reported in Arnhold, 2011).

The following summary is based on data from 17 speakers, who produced altogether 947 sentences containing 2841 words. Participants produced eight short SVO sentences with seven different information structures: one all-new sentence (e.g. *What happened first? — Jimi read the menu*), three versions with information focus on the subject, verb and object, respectively (e.g. answering *Who knitted a blanket? — Maini knitted a blanket* for subject focus) and three versions with narrow corrective focus on the subject, verb and object, respectively (e.g. *Does Niilo paint a house? — Niilo paints a cloth* for object focus). Narrowly focused elements were also always new in the context of the question-answer pair, while the other elements in the same sentence were mentioned in the question, and thus are considered given information according to the definition introduced above.

The data showed effects of information structure on four phonetic measures:<sup>2</sup> Pitch range, word duration, occurrence of pauses and non-modal voice quality (i.e. speech produced with distortions of the normal vocal fold vibrations, mostly creaky or breathy voice in our data, resulting from aperiodic vibration cycles and excessive air leakage, respectively, see Esling, 2006). New constituents showed higher values for pitch peaks and lower ones for following minima, as well as longer word durations. They were more often followed by pauses and they ended in non-modal voice more often than words in all-new sentences. By contrast, given words had smaller pitch ranges, shorter durations and they showed non-modal voice quality more frequently in post-focal position.

For an example exhibiting all these effects in parallel, consider the utterance *Jani tōni lavaa* ‘Jani pushed a platform’ illustrated in Figure 2. The sentence-initial subject is narrowly focused. It is realised with larger pitch range and longer duration than if it were given (compare also with the following verb containing the same number of segments). It ends in non-modal voice quality and is followed by a pause. By contrast, pitch movements are strongly compressed on the verb and not measurable on the object due to creaky voice, with both words showing relatively short durations.

For the phonological analysis of these results, we follow the account suggested

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<sup>2</sup> The original analyses additionally considered vowel quantity and position in the sentence. However, the analysis in Arnhold (2013) showed that all systematic effects of vowel quantity could be accounted for in terms of duration (e.g. the effect of narrow focus lowering the pitch of  $L_p$  was larger for words with long vowel quantity, which afforded more space for the pitch fall to this target). Position was correlated with grammatical function due to fixed SVO word order, so that effects were largely explained by verbs forming p-phrases with their objects as shown below. The only truly position effects, such as lower pitch maxima later in the sentences, were very straightforward and would only add unnecessary detail in the current context. These factors will therefore not be discussed in the following.

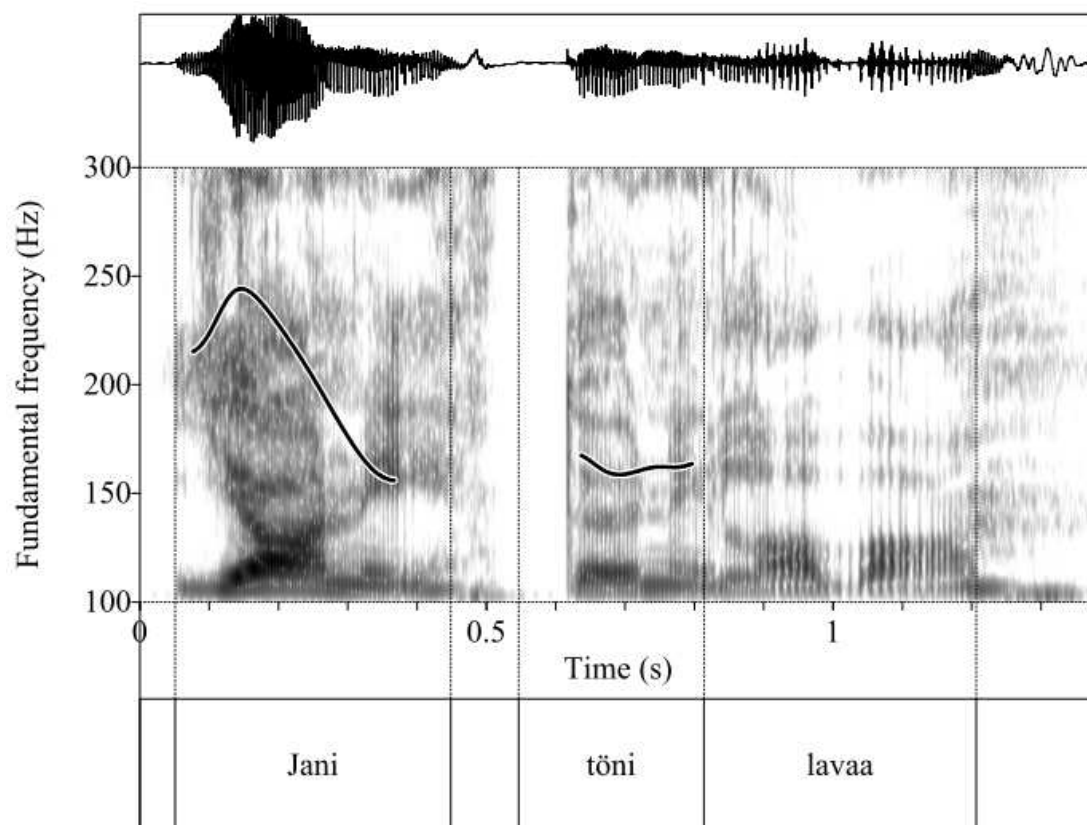


Figure 2: Prosodic marking of information structure in a sentence with fixed word order.



by Arnhold (2013). As summarised in (4), we assume two parallel strategies of focus marking, adjusting prosodic phrasing and prominence, respectively.

- (4) Prosodic strategies for marking focus in Finnish
- a. Adjustment of phrasing:  
The end of a new focused constituent is aligned with the right edge of an i-phrase.
  - b. Adjustment of prominence:  
Narrowly focused material is made more prominent, given material less prominent compared to an all-new context.

First, the right edge of a focused constituent is aligned with the right edge of a prosodic phrase, which we take to be the i-phrase (for an OT-constraint formalising this requirement see Selkirk, 2000, on English and Féry, 2013, for an account considering a wide range of languages). This is schematically illustrated in (5), where the subscript letters identify the boundaries of i-phrases and p-phrases, while boldface indicates narrowly focused constituents. Again, consider the example in Figure 2. The default phrasing of this sentence in an all-new context appears in (5a). While this phrasing already contains a p-phrase boundary between subject and VP, an additional i-phrase boundary is inserted in subject focus as realised in Figure 2, see (5b). For completeness, (5c) and (5d) show verb and object focus, respectively.

- (5) Prototypical phrasing of SVO sentences in different information structures
- a. All-new sentence:  
 $((\text{Jani})_p (\text{töni lavaa})_p)_i$ .  
 Jani pushed a.platform  
 ‘Jani pushed a platform’.
  - b. Narrowly focused subject:  $((\mathbf{Jani})_p)_i ((\text{töni lavaa})_p)_i$ .
  - c. Narrowly focused verb:  $((\text{Jani})_p (\mathbf{töni})_p)_i ((\text{lavaa})_p)_i$ .
  - d. Narrowly focused object:  $((\text{Jani})_p (\text{töni } \mathbf{lavaa})_p)_i$ .

The assumption that focus goes together with an inserted i-phrase boundary directly accounts for the increased occurrence of pauses after focused material. Likewise, longer durations and non-modal voice quality are plausibly explained as phrase-finality markers (on non-modal voice as a finality phenomenon see Iivonen, 1998; Nakai et al., 2009). Additionally, the adjustment of phrasing can at least partly explain the effect of information structure on pitch range: The insertion of an i-phrase boundary at the same time inserts a boundary at the p-phrase level, which is marked by  $H_p$  and  $L_p$  tones. Second, we understand the remaining prosodic effects—further differences in pitch range and duration—as adjustments

of prominence, scaling focused constituents up and given ones down in prosodic prominence.

### 3 Methods

As in the study summarised in the previous section, the material was elicited in systematically varied information structural contexts, but this time, the experimental design allowed variable word order instead of imposing fixed canonical SVO. The remainder of this paper presents data from an experiment eliciting semi-spontaneous speech. The data has previously been reported by Féry, Skopeteas & Hörnig (2010) in an overview comparing data from six languages, including Finnish. They argue for an overall similar account using the OT-constraint ALIGN-FOCUS-R to account for the right-edge alignment of focused constituents with an i-phrase (for a summary of the findings, see subsection 5.1). The current evaluation adds phonetic data to the prosodic analysis and provides a statistical assessment of significance for both prosodic and syntactic data. Differences in the results, e.g. in the count of word orders, are due to a re-evaluation of the data. A principled source of difference is that we decided to drop Féry et al.’s (2010) restriction against localisations like (6). To ensure comparability across the six languages in their data set, Féry et al. (2010) excluded all cases in which the speaker first introduced a referent (like the gorilla in (6)) before specifying its place in the localisation proper (marked with boldface in (6)).

- (6) Gorilla tuli takasin ja **se tuli to-hon karhu-n ete-en.**  
gorilla came back and it came there-ILL bear-GEN front-ILL  
‘The gorilla came back and it came there in front of the bear’.

#### 3.1 Experimental Design

The participants’ task consisted in the description of changing spatial layouts of plastic toy animals on a table in front of them. The participants addressed another native speaker, an acolyte, in such a way that he could reproduce the layouts with an identical set of toys. During the experiment, participants were seated at a table next to the experimenter (the first author), while the second native speaker sat at another table a few meters away with his back to them.

The spatial layouts are depicted in Figure 3. The experimenter first put two animals on the table next to each other, a crocodile and a gorilla. After the participant described this layout to the acolyte, the experimenter added a horse next to the gorilla, completing the first layout of three animals (L1). The participant described this layout. This procedure was repeated until the participant had

Figure 3: Layouts used in the experiment.

L1	Crocodile	Gorilla	<b>Horse</b>		
L2		Gorilla	Horse	<b>Tiger</b>	
L3		Gorilla	Horse	<b>Bear</b>	
L4		<b>Zebra</b>	Horse	Bear	
L5			Horse	Bear	<b>Dog</b>
L6	Horse	L7	Horse	L8	Horse
	<u>Bear</u>		Bear		Bear
			<i>Gorilla</i>		<b>Cow</b>
L9	<i>Tiger</i>	L10	<b>Pig</b>		
	Horse		Tiger		
	Bear		Horse		
L11	<u>Tiger</u>	Horse			

described all layouts. Each layout differed from the previous one by the manipulation of one animal, which was newly added or reintroduced to the layout or moved to a different location (displaced). Animals not currently placed on the table were hidden in a bag so that participants were unfamiliar with animals not part of a previous layout. With the exception of reintroduced animals, animals added to a layout were thus contextually new in the linguistic as well as the deictic / physical context of the description. In contrast, animals already part of the preceding layout were contextually given and had often been previously mentioned. In this way, the experimental design controlled for the information status of the referents used in the spatial localisations. The experiment systematically elicited three different information structural categories for the manipulated animals: new (marked in bold in Figure 3), reintroduced (marked in italics in Figure 3) and displaced given (underlined in Figure 3). Layouts L1 to L5 and L8 and L10 arose by adding a new animal to a constellation of two animals already standing on the table. New animals were added in one of three ways: by removing an animal and placing the new animal in the same position (L3, L4, L8), by adding the new animal at the place opposite to the place of the removed one (L2, L5, L10) or by simple addition without removing another animal (L1, L7). In layouts L7 and L9, the added animal had already figured in earlier layouts (L1 to L3 and L2, respectively) and was thus not completely new, but reintroduced. Lastly, for layouts L6 and L11, no animal was added, but an animal already standing on the table was moved to

a different position, i.e. displaced.

### 3.2 Participants

All participants were native speakers of Finnish and students at the University of Joensuu (now part of the University of Eastern Finland). Recordings were conducted with 32 participants at the laboratory of the Department of Linguistics at the University of Joensuu in November 2007. Data from 20 participants (19 female) was chosen for further analysis, discarding participants with a cold or with unnatural, bored or extremely slow speaking style and those who delivered incorrect descriptions. All speakers were reimbursed for their time.

### 3.3 Editing and analysis

The speakers produced descriptions of eleven layouts each, so that the analysis considers 220 descriptions altogether. For each of these localisations, the reference to the manipulated animal was annotated using Praat (Boersma & Weenink, 2013), measuring its duration, the use of non-modal voice quality, the occurrence of pauses and the time and  $f_0$  of the p-phrase tones  $H_p$  and  $L_p$  associated with it.

Statistical analysis was done by fitting linear mixed-effects models as implemented in the software R (R Development Core Team, 2010; Baayen, 2008), then comparing different models with the ANOVA function. Factors not significantly improving the model fit according to these comparisons were removed, so that the reported models include only significant predictors. For binomial models analysing the binary responses presence vs. absence of pauses and presence vs. absence of non-modal voice quality, R's lmer function calculated p-values. For all other measures, significance of a factor was assumed when the t-value associated with it was larger than 2, which should be unproblematic for relatively large data sets (Baayen et al., 2008, 398, footnote 1). The following section only reports significant effects. For subset models, using linear mixed-effect models was not feasible due to the small corpus size. Therefore, t-tests were used for analysing numeric variables, and Fisher's exact test and loglinear modelling were employed for the analysis of binary variables.

## 4 Hypotheses

We expected participants to describe the position of the manipulated animal—whether newly added, reintroduced or displaced. In particular, we anticipated that manipulated animals would be localised relative to the animals already present on the table rather than localising the static animals relative to the manipulated one.

With respect to the main research question, the interaction of syntax and prosody in marking information structure, we tested the following hypotheses:

**Hypothesis 1** When speakers are free to use word order variation to mark information structure, they do.

**Hypothesis 2** Even with other options available, speakers will still employ prosodic means of marking information structure.

Elaborating on hypothesis 1, we expected that in semi-spontaneous speech, speakers would choose word orders in accordance with the information structural division described in the literature as summarised in section 1 (Vilkuna, 1989, 1995; Vallduví & Vilkuna, 1998). In particular, we hypothesised that they would place new material in the default position for new information focus, i.e. sentence-finally. In contrast, given material should appear earlier in the sentence, either in the T-position or pre-finally in the V-field.

Additionally, as laid out in hypothesis 2, prosody is probably active in marking information structure even though other means for marking information structure are available. To assess this claim, we compared our materials to the findings from the study with fixed word order summarised in section 2, analysing the four phonetic measures that showed effects of information structure for the fixed SVO materials. In accordance with hypothesis 2, the referents of new objects should be i-phrase final and overall prosodically more prominent, as was described for new and focused words in fixed SVO word order. That is, they should show a larger pitch range, longer duration, end more frequently in non-modal voice quality, and be more frequently followed by pauses than given (and potentially reintroduced) animals.

## 5 Results

As expected, participants described the locations of the manipulated—new, reintroduced or displaced given—animal, usually by relating it to a static or removed animal (see (7) and (8)). Following Féry et al. (2010), we refer to the animal whose position was described as the ‘locatum’ (or *Loc*)—marked by boldface in the examples—and to the part of the utterance that specifies their position as the locative expression (or *Lx*)—rendered in italics. For example in (7), the described layout L11 resulted from changing the position of a given animal, in this case a tiger. The speaker expressed this animal as the locatum, with the locative expression specifying its new position relative to a static given animal, the horse. Here and below, we identify examples by speaker number and layout number, i.e. 4.11 marks layout L11 as described by speaker 4.

- (7) Nyt sika otettiin pois ja **tiikeri** siirrettiin *hevose-n vasemma-lle*  
 now pig was.taken away and tiger was.moved horse-GEN left-ALL  
*puole-lle.*  
 side-ALL  
 ‘Now the pig was taken away and the tiger was moved to the left side of  
 the horse’. (4.11)
- (8) Tiikeri lähti poikkeen ja *se-n tila-lle* tuli **karhu**.  
 tiger left away and it-GEN place-ALL came bear  
 ‘The tiger went away and in its place came a bear’. (23.3)

The following sections analyse the syntactic and prosodic characteristics of locatum animals (‘locata’) with systematically varied givenness status (given, new, reintroduced).

### 5.1 Word order

In all localisations, locata either preceded the locative expressions (Loc>Lx order, cf. (7)) or followed them (Lx>Loc order, cf. (8)). Overall, Lx>Loc order was more frequent, occurring in 69% of the localisations (152 cases). However, there were clear differences between given, new and reintroduced locata, as shown in Table 2. Strikingly, manipulations of given animals always resulted in descriptions with Loc>Lx order. In contrast, localisations of new animals showed some variation, but overall there was a clear preference for Lx>Loc order. Descriptions of reintroduced animals largely patterned with those of new ones, although the tendency towards Lx>Loc order was slightly less strong. Fisher’s exact test suggested that the distribution of Loc>Lx and Lx>Loc order did indeed differ significantly between utterances with given, new, and reintroduced locata. In other words, the givenness status of the locatum had a significant effect on the order of locatum and locative expression (two-tailed,  $p < .001$ ). A loglinear model confirmed this result ( $df = 216, \chi^2 = 119.92, p < .001$ ).

Table 2: Localisations with locatum preceding and following the locative expression by givenness status of the locatum.

	Loc>Lx		Lx>Loc	
Given	40	(100%)	0	(0%)
New	19	(14%)	121	(86%)
Reintroduced	9	(22%)	31	(78%)

Relating the data to Vilkuna's (1989; 1995) model shows that the relative order of locatum and locative expression was largely a matter of the occupation of the T-position and the sentence-final position (the K-position is expectedly less relevant in the current context, since the experiment was not designed to elicit contrastive foci or topics). Locata occupied the T-position in about 90% of the localisations with Loc>Lx order (57 cases, see the example in (9)). In Lx>Loc order, about 99% or 139 locata were realised in the default focus position, i.e. final in the V-field, as illustrated in (10).<sup>3</sup> Thus, relative order of locatum and locative expression was strongly indicative of word order.

	K-position	T-position	V-field		
(9)		<b>karhu</b> bear	siirty moved	<i>hevose-n</i> horse-GEN	<i>ete-en.</i> front-ILL
	‘[...] the bear moved to the front of the horse’. (22.6)				

	K-position	T-position	V-field		
(10)		<i>Tiikeri-n</i> tiger-GEN	<i>tila-lle</i> place-ALL	tuli came	<b>karhu.</b> bear
	‘In the tiger’s place came a bear’. (8.3)				

It should be noted that syntactically, the sentences in the current study are systematically different from those of the study using scripted SVO sentences summarised in section 2, which describe events with a prototypical transitive encoding of agent vs. patient or theme role. This type of active transitive sentence was almost completely absent from our materials (an exception is given in (11)).

(11)	Nyt hän otti krokotiili-n pois ja laittoi <i>hevose-n viere-en</i> Now (s)he took crocodile-ACC away and put horse-GEN next.to-ILL <b>tiikeri-n.</b> tiger-ACC
	‘Now she took the crocodile away and put a tiger next to the horse’. (26.2)

The majority of localisations in our data were either passive sentences, like (7) above, or, like (8) and (10), a type of intransitives traditionally called existential sentences. As one of the reviewers points out, intuitions about T-selection are much less clear for these types of sentences than in classical transitives (see also Vilkuna, 1989, esp. 49–50 on T-selection for passives and Vilkuna, 1989, 149–175; Karlsson, 2008, 104–105; Hakulinen & Karlsson, 1995, 95–96; Penttilä, 1957, 627–628 on T-selection and word order in existential sentences).

<sup>3</sup> These numbers exclude altogether 17 locata appearing in elliptical sentences (12 Lx>Loc, 5 Loc>Lx), where the discourse configurational division was difficult to determine.

Passive voice appeared in 22% of the localisations (48 sentences), describing the movement of the animal as a transitive event without specifying the person performing the movement (i.e. the experimenter),<sup>4</sup> whereas 73% or 161 localisations used active voice. Eleven elliptic descriptions without a verb could not be classified (about 5% of the data). Participants used passive formulations for 28% and 30% of localisations of given and reintroduced animals, respectively, but for only 20% of localisations of new locata (11, 11 and 26 cases, respectively). Interestingly, the choice of passive vs. active voice did not correlate with strong differences in word order: 67% of passives and 70% of active localisations had Lx>Loc order, overwhelmingly placing the locatum in final position.

The occurrence of existential sentences is a bit more difficult to quantify, since they are less well-defined as a class. Hakulinen et al. (2004, § 893) list five criteria, given in (12), but state that they are not necessarily met in all cases (also see Hakulinen & Karlsson, 1995, 95–97; Vilkuna, 1989, 155–175). In addition to those formal characteristics, existential sentences generally share the function of introducing a new referent into the discourse (Penttilä, 1957, 627–628; Hakulinen & Karlsson, 1995, 95; Vilkuna, 1989, 165–169).

- (12) Characteristics of prototypical existential sentences, from Hakulinen et al. (2004, § 893)
- a. The verb is *olla* ‘to be’.
  - b. The T-position is filled by a locative expression and the subject follows the verb.
  - c. The subject is divisible and bears partitive case.
  - d. In a negated clause, the subject bears partitive case.
  - e. The verb does not agree with the subject.

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<sup>4</sup> Note that while this function of passive voice is the same in Finnish as in the Germanic languages, there are important differences and it has been questioned whether the Finnish passive is indeed a passive at all (see the discussion in Hakulinen et al., 2004, § 1331). In particular, patient referents are not turned into subjects in Finnish passive sentences, according to Vilkuna (1989, 50; also see Hakulinen & Karlsson, 1995, 174), and passive forms exist for both transitive and intransitive verbs, although the former are more frequent (Vilkuna, 1989, 253, footnote 16). In fact, passive forms together with the first person plural pronoun *me* ‘we’, e.g. *me menttiin* ‘we went’, are extremely frequent in casual spoken Finnish, as already observed by Penttilä (1957, 471–472), and have replaced the first person plural active forms, e.g. *(me) menimme* ‘we went’, in many dialects (Karlsson, 2008, 354). Also note that while passive constructions in Germanic languages usually have the function of topicalising or foregrounding the patient, this is frequently achieved by word order variation in Finnish, with an active OVS sentence corresponding most closely to an English passive, e.g. *Kallea löi Pekka* ‘Kalle was hit by Pekka’ (e.g. Hakulinen & Karlsson, 1995, p.255–256; also see Kaiser, 2000, on the discourse functions of OVS).



	K-position	T-position	V-field
(13)		Tä-ssä this-INE	on is.3SG
			virhe-i-tä. mistake-PL-PRT
	‘There are (some) mistakes here / in this’.		
	(adapted from Hakulinen et al., 2004, § 893)		

Hakulinen et al.’s (2004) typical existential sentence fulfilling all these criteria appears in (13), while a representative example from the current data set is shown in (14). In our data, only seven localisations (3%) contained a form of the verb *olla* ‘to be’ in accordance with (12a), while by far the most frequent verb was *tulla* ‘to come’ (119 cases or 54%). Altogether 137 localisations (62%) fulfilled the word order criteria in (12b). However, localisations never included partitive subjects (12c). Consequently, the criterion in (12e) does not apply, since non-agreeing verb forms as in (13) default to the third person singular, which constitutes agreement with the nominative singular subjects referring to the manipulated animal. Lastly, participants did not use negation in the localisations, so that (12d) cannot be evaluated.

	K-position	T-position	V-field
(14)		<i>tiikeri-n</i> tiger-GEN	<i>taa-kse</i> back-TRA
			<i>tule-e</i> come-3SG
			<b>sika.</b> pig.NOM
	‘[...] behind the tiger comes a pig’. (28.10)		

There is some disagreement as to which criteria are decisive (for an overview, see e.g. Hakulinen & Karlsson, 1995, 95–97), but it seems reasonable to classify localisations like (14), with the word order properties described in (12b) and a third person singular form of the verb *tulla* ‘to come’, as existential sentences. Overall 47% were of this type, with an additional 12% being in line with (12b), but containing passive verbs forms like *laitettiin* ‘was put’ (104 and 26 cases, respectively). Relating this to information structure, participants did not use existential sentences in localising displaced given animals at all, but *tulla*-existentials made up 59% of localisations for new animals and 52% for reintroduced ones (83 and 21 cases, respectively). Passive existentials appeared in 18 new animal localisations (13%) and in eight localisations of reintroduced animals (20%).

A more detailed syntactic analysis of the data was presented in Féry et al. (2010). The article presented a cross-linguistic study of semi-spontaneous data obtained from the same experiment as the one reported here conducted uniformly for six languages (Chinese, English, Finnish, French, Georgian and German). The well-known tendency for a given constituent to be uttered before a new constituent delivered the non-canonical marked word order (locative expression before locatum,  $Lx \succ Loc$ ). It was shown there that prosodic alignment is first of all a prosodic constraint that relates information structure to the edge of a prosodic domain. But

syntax provides some of the tools to fulfil this constraint. Thus, prosody and syntax are working together in satisfying information structural needs. In a subset of the studied languages (German, Georgian and Finnish), non-canonical orders were dominant in the critical context. At the other extreme, in French and English, non-canonical orders were always non-preferred, even though they occurred more frequently in the critical condition. The Chinese results were intermediate between the two classes of language. This difference was related to the fact that the syntactic operations involved in the derivation of non-canonical word orders differed in the two language types: the non-canonical word orders in German, Georgian and Finnish were analysed as the result of scrambling, while the non-canonical word orders in English, French and Chinese were understood as the results of movement to designated positions in the left periphery. In other words, it was shown that some languages, including Finnish, were much more responsive than others in their propensity for a non-canonical word order for the sake of information structure. This difference was attributed to the restricting role played by syntax and prosody in the languages considered.

## 5.2 Prosody

Prosodic marking of information structure was much weaker in the semi-spontaneous data than in the comparable study with fixed word order summarised in section 2. For most of the phonetic measures, effects were less clear in the data with variable word order and often not statistically significant. Before proceeding to the detailed analyses, consider example (15), a localisation of a new locatum (see Figure 4). The difference to the prosodic information structure marking exemplified in Figure 2 is striking. Whereas Figure 2 shows pitch range boosting for the new constituent and compression for the given parts, Figure 4 exhibits regular downstep of p-phrase tones throughout the sentence. This includes the pitch contour on the new locatum *hevonen* ‘horse’, which the speaker realised in final position, as is typical in our data. In accordance with its position, the locatum ends in creaky voice and is slightly elongated. It is, however, not especially prominent. Notice also the absence of non-modal voice quality or shortened durations during the rest of the sentence.

- (15) Sitte *gorilla-n oikea-lla puole-lla* tul-i **hevonen**.  
 then gorilla-GEN right-ALL side-ALL came horse  
 ‘Then a horse came on the gorilla’s right side’. (19.3)

The following subsections flesh out this finding in more detail with the support of statistical analyses. For all measures, we first present an analysis of the data set on a whole, using mixed-effect models. We then give the results of separate analyses for the subset of data in Loc>Lx. This order occurs in all three

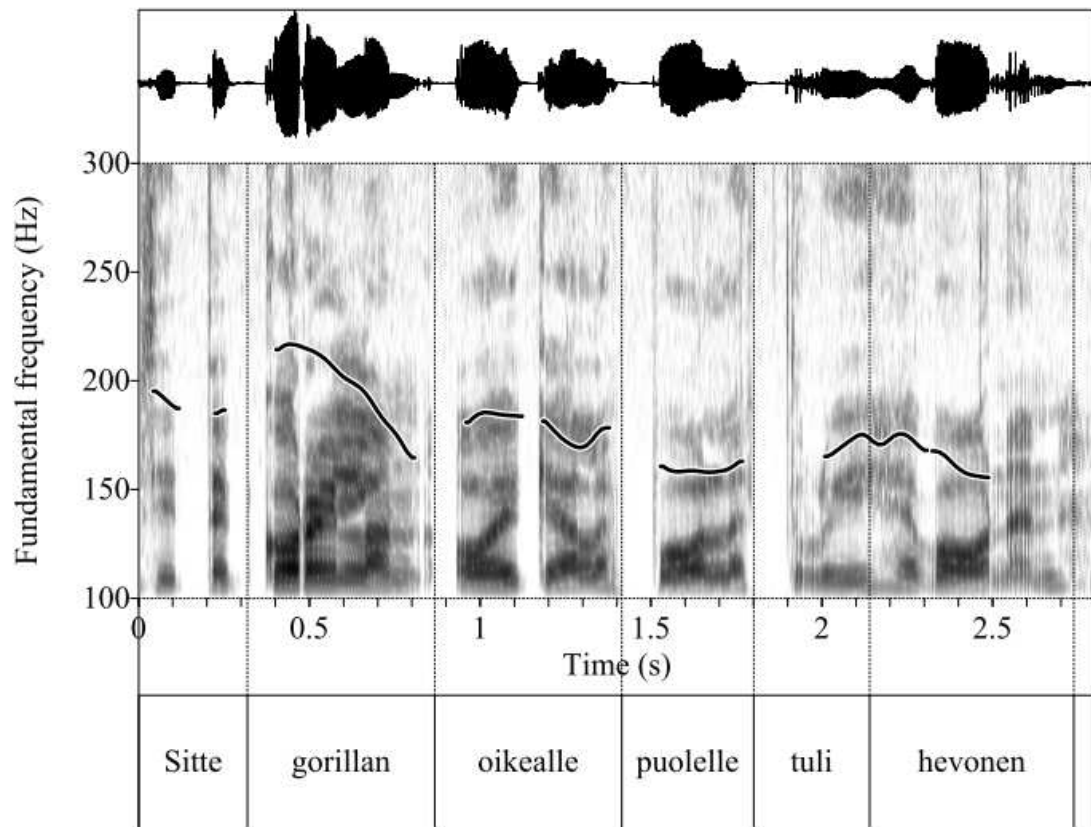


Figure 4: Localisation with new locatum.

information structural conditions, so that it is possible to test for the pure effect of givenness and exclude an effect of word order. The subset analyses used t-tests, since it contained a reduced number of data points. Frequently, these two evaluations give very different results. The overall analyses of the data set as a whole, which ignored differences in word order, sometimes yielded a rather counter-intuitive picture. Several apparent effects of givenness in the data set on a whole did not persist in the subset analyses. We assume that they can be explained as differences in relative order (see section 5.1), thus positional effects. However, it was not possible to directly test statistically for an interaction of givenness and word order in the current data set due to distributional gaps. That is, since Lx>Loc order never occurred for localisations of given animals, the factors order and givenness status could not be crossed.

### 5.2.1 *Pitch range*

In the data set on a whole, new and reintroduced locata did not have a larger pitch range than given ones. The subset analysis indicated that this was likely a positional effect: While the relative order of locatum and locative expression varied for new and reintroduced animals, localisations of given ones exclusively used Loc>Lx order. Thus, given animal referents always appeared relatively early in the utterance, while new and reintroduced ones frequently appeared towards the end, often in absolute final position (cf. section 5.1). Due to downstep / declination, pitch range tends to be larger at the beginning of the utterance, all else being equal (see, e.g. Prieto et al., 1996, for an investigation of downstep and declination in Spanish; declination in Finnish is mentioned by Välimaa-Blum, 1993, 83, and Iivonen, 1998, 317).

Across the data set as a whole, mean pitch range was smaller for new and reintroduced locatum animals (2.5 semitones (st) and 2.8 st, respectively, compared to 3.9 st for given ones). A linear mixed-effects model indicated that this difference was significant for reintroduced, and marginally significant for new locata (cf. Table 3).<sup>5</sup> It also included two other factors significantly affecting pitch range: number of segments and relative distance from utterance beginning. The effect of the first predictor indicates that words with more segments had larger ranges than shorter words. The second factor is a measure of the distance of the locatum from the beginning of the utterance relative to sentence duration. This measure had values ranging from 0 for sentence-initial locata to almost 1 for locata realised close to the end of the utterance. Its negative effect in Table 3 suggests that pitch

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<sup>5</sup> The fact that, in spite of a higher mean value for new locata, a significant effect arose for reintroduced locata, but not for new ones, appears to have been caused by the difference in distributions for these two conditions. As visible from Figure 5, variance was much larger for new locata than for given and reintroduced ones.

range was overall smaller for locata realised later in the utterance, indicating a declination effect.

Table 3: Best model of locatum pitch range (in st), with random by-subject effects of givenness status (167 observations).

	Estimate	Std. Error	t value
(Intercept)	2.0943	0.8494	2.4657
New	-0.7756	0.4207	-1.8434
Reintroduced	-0.8426	0.4069	-2.0705
Number of segments	0.5151	0.1238	4.1612
Rel. distance to beg.	-2.3311	0.5037	-4.6277

For a finer-grained picture of the effect of givenness, consider Figure 5, showing boxplots of pitch range for given, new and reintroduced locata separately for both orders. It illustrates that locatum pitch range was overall larger in Loc>Lx than in Loc>Lx order, the mean range being 3.8 st and 2.3 st, respectively. That is, pitch range was smaller for locata appearing earlier in the utterance, which is a natural effect of downstep / declination. Since the distribution of word orders significantly differed between given, new and reintroduced locata (cf. section 5.1), we directly assessed the effect of givenness for the subset of locata in Loc>Lx order. A paired by-participant t-test comparing the pitch range of given and non-given (new and reintroduced) locata did not indicate a significant difference, nor did one comparing only given and new locata ( $t(10) = 0.37, p = 0.7$  and  $t(8) = -0.34, p = 0.7$ , respectively; note that corresponding by-item tests could not be conducted due to the experimental design).

### 5.2.2 Duration

New and reintroduced locata showed longer average durations for the data set as a whole. Again, this effect did not persist in the subset model, thus it might be a positional effect. New and reintroduced locata were more often realised in final position, which is affected by final lengthening (see Nakai et al., 2009).

On average across the whole data set, participants realised given locata with a duration of 461 milliseconds (ms), while new locata were 504 ms and reintroduced locata 494 ms long. However, the linear mixed-effects model in Table 4 suggests that reintroduced locata were significantly shorter than given ones, while the duration of new and given locata did not differ significantly. Instead, the model includes a significant effect of number of segments, with locata consisting of more segments being understandably longer in duration. Also, locata had longer durations when the locatum expression preceded or followed a pause.

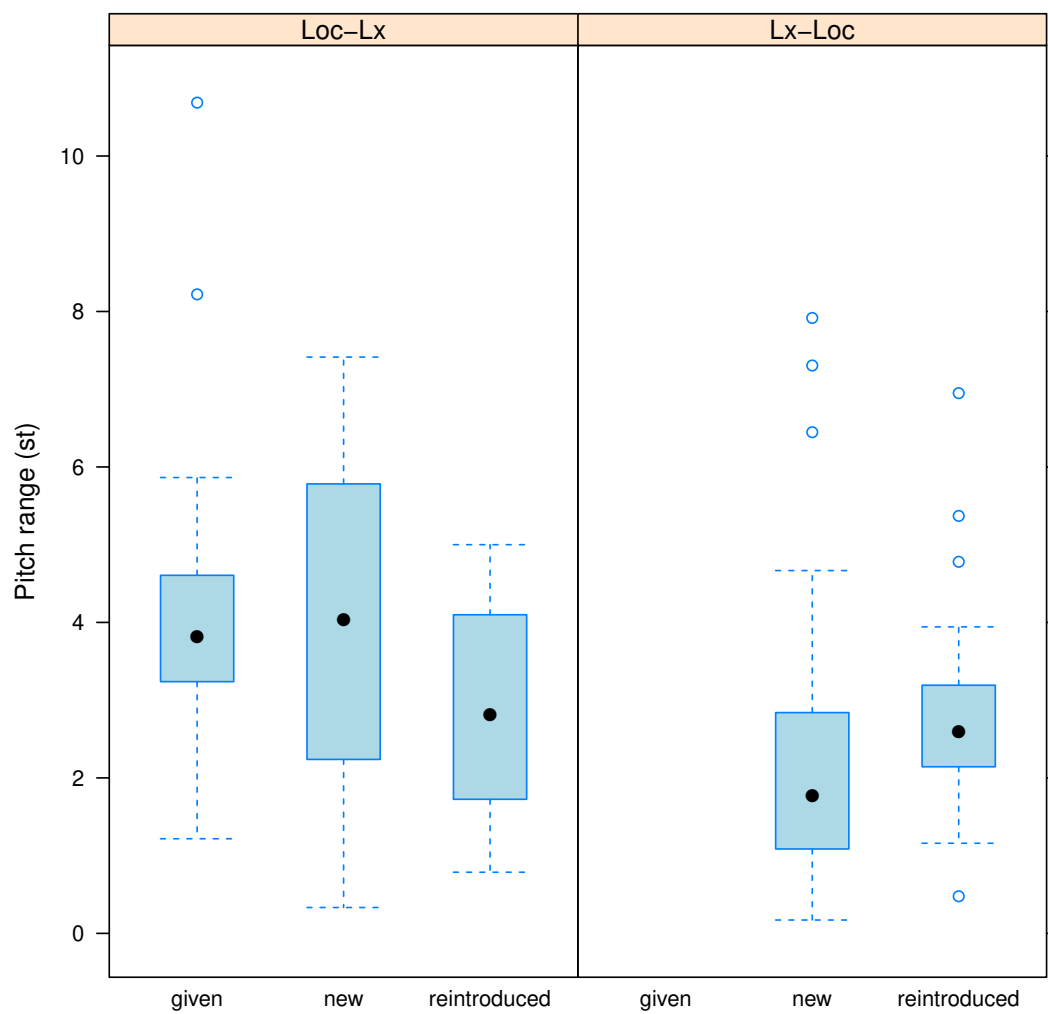


Figure 5: Pitch range of locatum animals in different conditions (in st).

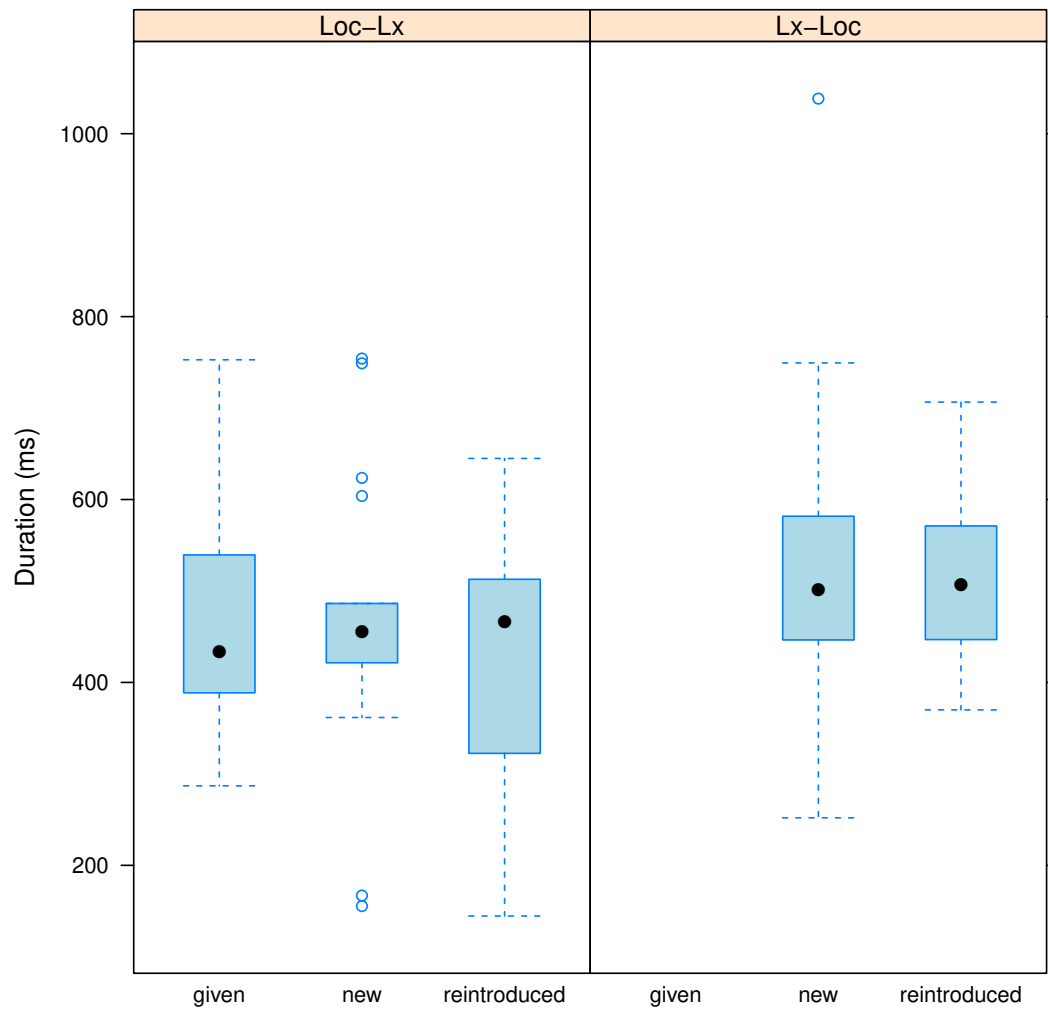


Figure 6: Duration of locatum animals in different conditions (in ms).

Table 4: Best model of locatum duration (in ms), with random effects of subject (219 observations).

	Estimate	Std. Error	t value
(Intercept)	102.9975	34.6730	2.9705
New	11.5650	17.4551	0.6626
Reintroduced	-32.4980	19.7665	-1.6441
Number of segments	57.1341	5.5468	10.3003
Following a pause	47.0956	11.8688	3.9680
Preceding a pause	93.2954	14.9131	6.2559

Figure 6 shows the distribution of duration measurements for given, new and reintroduced locata separately for the two word orders. Overall, locatum durations were shorter when the locatum preceded the locative expression than in the reverse order, which only occurred with new and reintroduced locata (mean 456 ms and 511 ms, respectively). This is expected since locata in Lx>Loc order overwhelmingly occupied the utterance-final position (recall section 5.1), where they were affected by final lengthening. In Loc>Lx order, paired by-participant t-tests did not find a significant difference between given and non-given or between given and new locata ( $t(12) = 1.22, p = .2$  and  $t(9) = 0.22, p = .8$ , respectively).

### 5.2.3 Voice quality

Figure 7 depicts the percentage of (partly) non-modal realisations for first and second syllables of given, new, and reintroduced locata in Loc>Lx and Lx>Loc order, respectively. It shows that in Loc>Lx order, non-modal realisations were infrequent for the first syllables of locata in all givenness conditions, whereas second syllables were more often non-modal for new and especially reintroduced locata compared to the given condition. When locata followed locative expressions, participants realised both their first and second syllables with non-modal voice quality in about 40%–60% of the (new and reintroduced) locata.

Binomial linear mixed-effects models estimated the differences between givenness conditions to be significant in the data set as a whole. The significant positive effects suggest that non-modal voice quality was more likely for the first syllables of new locata than for those of given ones (cf. Table 5), and more likely for the second syllables of both new and reintroduced locata than for the given intercept (cf. Table 6).

In addition to the effects of givenness, both models indicated that non-modal voice quality was significantly more likely later in the utterance, i.e. at a greater relative distance from its beginning. Also, participants used non-modal voice



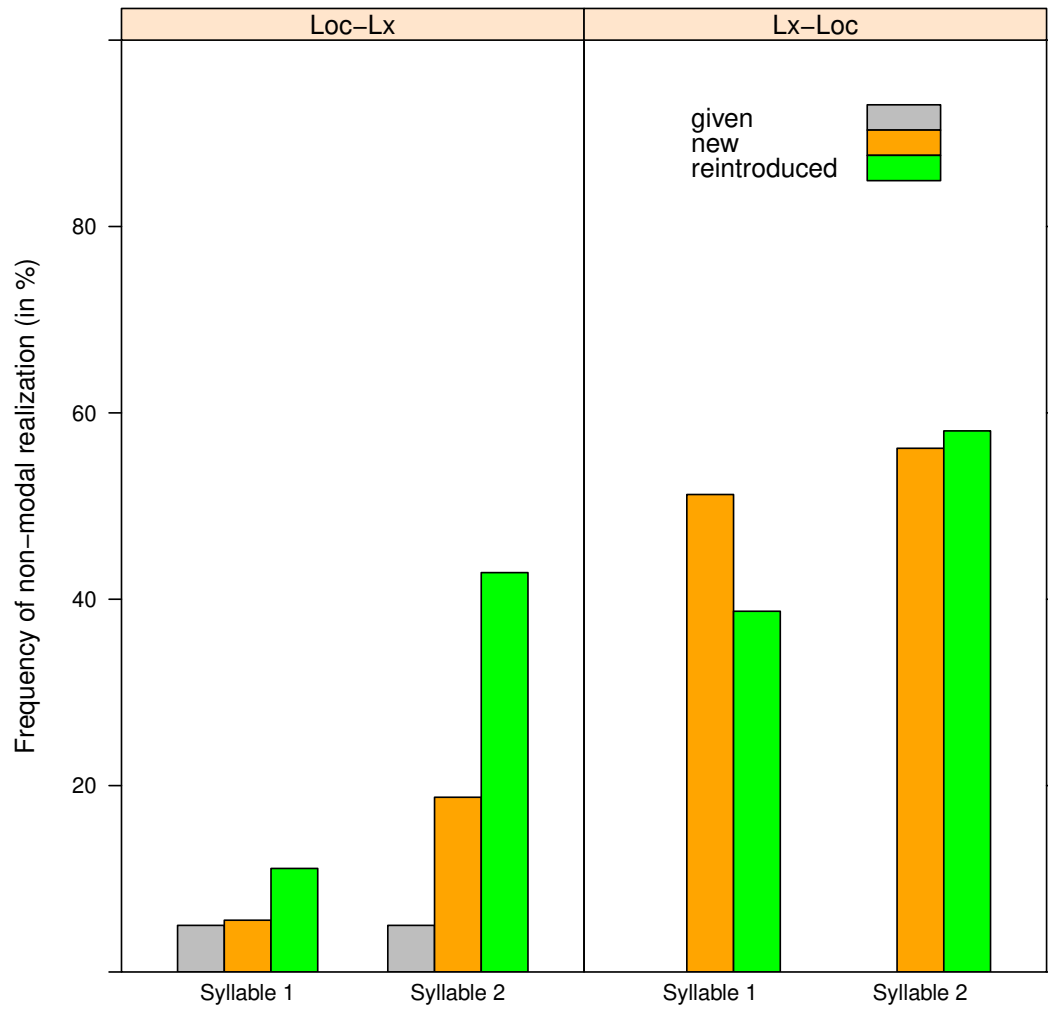


Figure 7: Percentages of syllables with (partly) non-modal voice quality in different conditions for first and second syllables of *locata*.

Table 5: Best model of occurrence of non-modal voice quality in first syllables of *locata*, with random effects of subject (219 observations).

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	-3.2593	1.3503	-2.4137	0.0158
New	1.7549	0.8605	2.0394	0.0414
Reintroduced	1.4423	0.9179	1.5713	0.1161
Rel. distance to beg.	4.4855	1.0721	4.1839	0.0000
Number of segments	-0.3946	0.1762	-2.2390	0.0252

Table 6: Best model of occurrence of non-modal voice quality in second syllables, with random effects of subject (215 observations).

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	-4.6747	0.8927	-5.2367	0.0000
New	2.4486	0.8277	2.9584	0.0031
Reintroduced	2.7289	0.8792	3.1038	0.0019
Rel. distance to beg.	3.1977	0.8422	3.7969	0.0001

significantly less frequently on first syllables of locata consisting of a larger number of segments according to the model in Table 5.

Analysing only the subset of locata in Loc>Lx order, we found no significant effect of givenness on the voice quality of the first syllable (Fisher’s exact test, two-sided:  $p = .7$ ; loglinear model:  $df = 64, \chi^2 = 0.42, p = .8$ ). In contrast, Fisher’s exact test confirmed the significant effect of givenness on the voice quality of the second syllable when comparing given, new and reintroduced locata in Loc>Lx order (two-sided,  $p < 0.05$ ) and a loglinear model likewise found a significant effect ( $df = 60, \chi^2 = 7.07, p < 0.05$ ). However, the effect disappeared when reintroduced items were excluded: When considering only given and new locata in Loc>Lx order, we did not find a significant difference between them (Fisher’s exact test, two-sided:  $p = .1$ ; loglinear model:  $df = 54, \chi^2 = 2.38, p = .1$ ).

#### 5.2.4 Pauses

All in all, 159 locata, i.e. 74%, were followed by a pause—either utterance-internally or marking the end of the utterance. As indicated by the model in Table 7, the occurrence of a pause was significantly more frequent after new and reintroduced locata than after given ones, with 86% of new locata, 82% of reintroduced locata and 18% of given ones followed by a pause (119, 33 and 7 occurrences, respectively). However, recall that participants realised most new and reintroduced locata in Lx>Loc order where they were almost always utterance final, and thus followed by a pause, whereas all given locata preceded the locative expressions. For the subset of locata realised in Loc>Lx order, the effect of givenness was not significant (Fisher’s exact test, two-sided:  $p = .6$ ; loglinear model:  $df = 64, \chi^2 = 0.78, p = .7$ ).

Table 7: Best model of occurrence of pauses after locata, with random effects of subject (219 observations).

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	-7.5049	1.6255	-4.6170	0.0000
New	2.7439	0.5402	5.0798	0.0000
Reintroduced	2.5086	0.7048	3.5596	0.0004
Rel. distance to beg.	6.1096	1.0992	5.5583	0.0000
Number of segments	0.5402	0.2315	2.3336	0.0196

Finally, pauses were also significantly more frequent after locata appearing relatively late in the utterance and after those containing more segments (cf. Table 7 again). The former finding seems to be a statistical reflection of the fact that

locata late in the sentence were frequently utterance-final and thus by definition followed by a pause. The latter might be an effect of constraints on maximal phrase length, but this explanation would need to be backed up by further research.

## 6 Discussion and Conclusion

This article has investigated information structure marking in a semi-spontaneous experiment, in which participants were free to choose word order. In accordance with hypothesis 1 in section 4, word order showed a clear effect of the difference between given and new (and to a lesser extent reintroduced) referents, with new referents mostly occupying the sentence-final focus position and given ones overwhelmingly appearing in the earlier T-position. Related to this word order variation, we found that participants used existential sentences in the majority of localisations of new and reintroduced locata—but not for localising displaced given animals. This follows naturally from Vilkuna’s (1989; 1995) model of discourse configurationality. Two of the most important characteristics of prototypical existential sentences are their function of introducing new referents into the discourse and their tendency for subjects to appear after the verb, frequently in final position (e.g. Vilkuna, 1989, and Karlsson, 2008, focus on word order, but cf. Penttilä, 1957, who discusses existentials primarily in relation to partitive subjects). The final position in the V-field is the default location of non-contrastively focused elements according to Vilkuna (1989, 1995). The use of existentials, characterised by late subjects, is thus a way of placing a new (subject) referent in the focus position. The two properties, late subjects and the function of introducing new referents, then, thus are two sides of the same coin, strongly connected to the fact that Lx>Loc order dominated in localisations of new and reintroduced locata, while localisations of given locata exclusively used Loc>Lx order.

In contrast with the pervasive syntactic effects of information structure, the prosodic effects usually did not reach significance. These results differed clearly from the results of a previous study with scripted data imposing unmarked SVO word order, summarised in section 2. Prosodic marking of information structure was ubiquitous in the study with fixed SVO order, but not in the present experiment (cf. the overview in Table 8). In accordance with hypothesis 2, new locata were expected to have a larger pitch range and longer duration, as well as to end in non-modal voice quality and to be followed by pauses more frequently than given locata, based on the SVO data. However, new locata did not exhibit larger pitch ranges or longer durations. While they ended in non-modal voice quality and were followed by pauses more frequently than given locata in the data set as a whole, only the effect of voice quality persisted in the subset analysis of localisations with Loc>Lx order. Thus, prosodic marking of information structure was considerably

less in the variable word order than with fixed SVO word order.

*Table 8: Comparing prosodic marking of information structure for fixed and variable word order: Effects of new/focused status.*

Effect	Fixed SVO	Variable order	
		overall	Loc>Lx
Larger pitch range	×		
Longer duration	×		
More final non-modal voice quality	×	×	×
More following pauses	×	×	

We argue here that the availability of word order variation in the localisation experiment was the crucial reason for the decreased use of prosodic information structure marking in the localisation experiment. Since syntax (and morphology) were fixed in the earlier study, prosodic devices carried the load of transmitting information structure on their own. By contrast, the participants of the localisation experiment were free to use syntactic devices to mark the manipulated variation in givenness and they consistently made use of this option. In fact, we go a step further and suggest that the participants of the localisation experiment used only one of the two prosodic strategies identified on the basis of previous research, the adjustment of phrasing. Notice that the prosodic effects that did reach significance were the use of non-modal voice quality and (partly) the occurrence of pauses, both known as finality markers. Also, the speakers clearly preferred to place new referents in final position syntactically, making them also prosodically final. Therefore, we assume that whereas speakers did not boost the prosodic prominence of new elements as much as for scripted SVO materials, the prosodic requirement that focused constituents be right-edge aligned with i-phrases was still active. While participants employed other grammatical means of information structure marking, they still additionally used some prosodic means, in line with our hypothesis 2. This prosodic constraint may be explicitly linked to the well-known fact that the default position for new information foci is sentence-final in Finnish. To achieve the alignment of i-phrase and focused constituent, placing the focused material in final position is maximally efficient. In this case, only one i-phrase is needed to accommodate both the focused constituent and the non-focal parts of the utterance, as illustrated schematically in (16a). When the option to re-order is not available, like in the study summarised in section 2, an additional i-phrase boundary has to be inserted, see (16b) and (16c).

	K-position	T-position	V-field
(16) a.		(... ...	[...]FOC) <sub>i</sub>
b.	([...]FOC) <sub>i</sub>	(... ...)	(...) <sub>i</sub>
c.	(... ...	([...]FOC) <sub>i</sub>	(...) <sub>i</sub>

The structure in (16a) fulfils both the prosodic alignment constraint and adopts the syntactic default of placing the new / focused element in the final position, while at the same time reducing the number of i-phrases to a minimum. In contrast, (16b) and (16c) manage to align focus constituent and i-phrase boundary, but deviate from the standard Finnish discourse configuration and, in doing so, require one more i-phrase to accomodate the same material. Therefore, (16a) is optimal both from the syntactic and the prosodic point of view, while (16b) and (16c) are inferior in both respects. It is difficult to say whether prosodic phrasing is caused by syntactic regularities or whether it is the other way around. That is, it can also be the case that prosodic constraints create the syntactic patterns so frequently observed. Either way, our data show a close connection between the use of prosody and syntax in marking information structure.

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# Adjectivality of a Non-prototypical Adjective: The Case of Finnish Past Passive Participles\*

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The present paper examines the adjectivality of past passive participles in Finnish. ADJECTIVILITY is understood as the degree to which participles display properties typical of adjectives on the morphosyntactic and semantic level, as different from ADJECTIVISATION, which concerns the distance in morphosyntax and semantics a participle shows compared to its verbal counterpart. It is demonstrated that varying conclusions might be reached depending on which of the two approaches is adopted. This article studies the adjectivality of participles in the predicative position and shows that when used predicatively, participles demonstrate features comparable to those of lexical adjectives which have not been addressed in studies focusing on the attributive use of participles. Other morphosyntactic criteria of adjectivality examined in this paper include: displaying gradable properties, serving as a derivative basis for adverbs and forming antonyms. In terms of semantics, the key feature in explaining the adjectivality of participles is boundedness. It is argued that adjectivally used Finnish past passive participles designate properties which sometimes bear a relatively distant relation to the events included in the meaning of their verbal counterparts. Varying interpretations in the domain of boundedness between adjectivally and verbally used participles are taken to illustrate these differences in event-relatedness. This paper also suggests that several Finnish past passive participles be recognised as separate dictionary entries.

Keywords: *adjectivality, boundedness, event-relatedness, Finnish, past passive participle*

## 1 Introduction

It is generally agreed that participles reveal features of both adjectives and verbs. However, approaches differ as to what the starting point should be: are participles first and foremost verbal units which demonstrate adjectival behaviour or are they adjectives integrated into verbal paradigms? More structurally oriented approaches typically employ the former perspective: participles are verbal paradigms which inflect for case and other categories typical of NPs, and, in a way additionally, demonstrate features typical of adjectives - appearing as predicatives, forming adverbs, allowing modifications by degree modifiers, etc. This “additional” adjectival behaviour of participles is the point of departure for the present paper. This article rests on the assumption that participles can be regarded as to greater or lesser extent independent lexical units, i.e. adjectives. I will try to demonstrate that in this way, i.e. when studying the ADJECTIVILITY of participles, different conclusions can be reached than when the focus is on their ADJECTIVISATION, which refers to the degree of non-verbality in different uses of participles. As a result, the

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\* I gratefully acknowledge Nicole Nau for her invaluable help and critical remarks on this article. I would like to thank Tapani Kelomäki for his in-depth comments, as well as Eva Havu and other participants of the 40<sup>th</sup> Finnish Conference of Linguistics for their useful comments concerning the earlier version of the paper. I am also very indebted to the two anonymous FULL reviewers, whose supportive criticism provided me with an opportunity to significantly improve the quality of my article. I am especially thankful to the reviewers for bringing the importance of boundedness to my attention, as well as for help in making the concept of event-relatedness more explicit.

most adjective-like participles can, but do not necessarily have to be, the least verb-like ones.

Seeking regularities which might help tell where the border between participles' adjectivity and verbality lies is in itself not an original research question. In terms of Finnish, the most extensive study of this kind is Koivisto (1987). The present paper differs from Koivisto (1987) in two main respects: its primary focus is not on adjectivisation but on adjectivity and it assigns more prominence to the predicative than to the attributive use of participles. In different contexts, the reading of the Finnish past passive participle can be adjectival or verbal. Sometimes, the interpretation of a participle is ambiguous between verbal (as a constituent of the perfect passive form of the verb) and adjectival (as a predicative), cf. (1):

- (1) *Bakteereiden läbde on nyt eristetty ja*  
 bacteria.GEN.PL source **be.PRS.3SG** now **isolate.PPP** and  
*vesijohtoverkko huuhdeltu.*  
 water.supply.system rinse.PPP<sup>1</sup>  
 'The source of bacteria **is** now **isolated** ~ **has** now **been isolated**<sup>2</sup> and the  
 water supply system rinsed (...).'<sup>3</sup> (yle.fi<sup>3</sup> 17.7.2012)

This type of equivocal syntactic behaviour is found in participles which can be considered to a greater or lesser degree lexicalised and it is mainly such cases that the present paper investigates. At first sight, adjectivally used Finnish past passive participles are semantically and morphosyntactically very similar to constituents of perfect passive constructions but as I will try to demonstrate, these differences are greater than could be expected. The method is a two-step one: first, I look at what sets of morphosyntactic features typical of adjectives the participles under investigation demonstrate and subsequently, seek for possible semantic motivation behind the fact that certain participles are used in multiple morphosyntactic adjectival contexts. Following the view presented in Paradis (2001), I take boundedness to be a vital component of the semantics of participles as adjectives. I maintain that differences in boundedness between a verbally and an adjectivally used participle speak of differences in event-relatedness between the two. Event-relatedness is a concept telling whether an event of the same nature and structure as that of the corresponding verb is included in a participle's meaning. Put simply, an event-related passive participle is one whose use implies that the event

<sup>1</sup> ABESS = abessive, ABL = ablative, ACC = accusative, ADESS = adessive, ADV = adverb, AGPTCP = agent participle, ALLAT = allative, COMP = comparative, ELAT = elative, ESS = essive, GEN = genitive, IMP = imperative, IMPERF = imperfect, INESS = inessive, INF = infinitive, INSTR = instructive, NEG = negation, NOM = nominative, PAP = past active participle, PART = partitive, PASS = passive, PL = plural, POSS = possessive suffix, POT = potential mood, PPP = past passive participle, PR = proper name, PRS = present, PRSAP = present active participle, PRSPP = present passive participle, PTCL = particle, Q = question particle, SG = singular, SUPERL = superlative, TRANSL = translative, VN = verbal noun

<sup>2</sup> The fact that in (1), *eristetty* is modified by *nyt* 'now' does not exclude the possibility of a verbal reading. The Finnish perfect differs from the perfect tenses found in Indo-European languages, e.g. Latvian or English, in that *nyt* can be in this context replaced by e.g. *eilen* 'yesterday'. Thus it would make the reading of *eristetty* verbal, i.e. a constituent of the perfect passive form of *eristää* 'isolate'.

<sup>3</sup> The main source of examples used in this article is 'HS' for *Helsingin Sanomat*, Finland's biggest daily newspaper. Apart from HS, I also cite Internet versions of local Finnish dailies, as well as some other Internet services which include news, articles, columns, etc.

denoted by the corresponding verb has occurred. The concept of event-relatedness is not new, but it has mainly been employed in diachronic studies of grammaticalisation: e.g. Carey (1995) raises the question of the relevance of the event for the semantics of past participles in her examination of the development of the English perfect from resultative constructions. The following example illustrates an adjectival use of a past passive participle *hyväksytty* ‘approved of’ which is in a relatively distant relation to the event denoted by *hyväksyä* ‘accept, approve’. In (2) *hyväksytty* is preceded by a degree modifier *melko* ‘fairly’. This is at odds with the structure of a bounded event of accepting something:

- (2) *Vaikka maan suurimmat uskonnot subtantuvat kielteisesti*  
 although country.GEN big.SUPERL.PL religion.PL relate.PRS.3PL negatively  
*homoseksualisuuteen, yhteiskunnallisesti homous on melko*  
 homosexuality.ILLAT socially homosexuality be.PRS.3SG fairly  
***hyväksyttyä.***  
**accept.PPP.PART**  
 ‘Although the biggest religions in the country display a negative attitude towards  
 homosexuality, it is quite approved of in the society.’  
 (Maailman Kuvalehti 3/2007)

Resorting to differences in event-relatedness is based on the assumption that a participle refers to the event in a different way than its respective verb does. As I will demonstrate, participles can receive interpretations in the domain of boundedness irrespectively of whether their corresponding verbs refer to bounded or unbounded events. Under ‘events’, I do not mean a type of states of affairs, usually distinguished alongside situations, processes and actions (cf. e.g. Van Valin & La Polla 1997: 83), but I use ‘events’ as a working term which encompasses different states of affairs denoted by verbs.

Additionally, this paper suggests that the list of Finnish past passive participles which make separate dictionary entries could be broadened. In the most recent dictionary of the Finnish language – *Kielitoimiston sanakirja* (KTS) – there are seven such participles: *oikeutettu* ‘justified, justifiable’, *toivottu* ‘hoped for’, *haluttu* ‘wanted’, *hallittu* ‘controlled’, *sallittu* ‘allowed’ and *barkittu* ‘premeditated’, as well as *armoitettu* ‘born (e.g. of speaker, writer)’. The last one, however, is lexicalised in the sense that there is no corresponding verbal paradigm which *armoitettu* could be considered part of<sup>4</sup>. The remaining six might be regarded homonyms of their verbal counterparts, albeit such a view involves the slight oversimplification that verbally used participles alone could designate events.

In the subsequent section, I provide an elaborate discussion on the adjectival and verbal properties of participles. I also introduce Finnish past passive participles with a special focus on their predicative use. Then I proceed to presenting a study on the morphosyntactic adjectival properties of Finnish past passive participles completed as part of my master thesis (Wójtowicz 2011), followed by a brief discussion on the results. In Section 4, I address contextual factors important to the interpretation of participles as adjectives and discuss the semantics of participles. Section 5 summarises and concludes the paper.

<sup>4</sup> It is also worth noting that *armoitettu* appears first and foremost as an attribute in fixed phrases, e.g. *armoitettu puhuja* ‘a born speaker’.

## 2 Past passive participles in Finnish

### 2.1 Participle: more adjectival or verbal?

The nature of participles as more or less independent adjectival units is addressed in Haspelmath (1994), who provides the following definition of a participle: “Participles are best defined as verbal adjectives, i.e. words that behave like adjectives with respect to morphology and external syntax, but are regularly derived from verbs.” (Haspelmath 1994: 152). Once the expression ‘verbal adjectives’ is used, participles are treated as adjectives that demonstrate properties of verbs rather than as verbal forms which behave like adjectives. However, it seems that most discussions on participles in general linguistics depart from (and revolve around) verbal features. In terms of passive participles, their status is distinguished on the basis of distinctions in verbal categories such as voice. For example, Bresnan (1982) shows that while intransitive verbs can form passive participles, they experience semantic restrictions in the formation of passives. Passive participles as different from passives are addressed in Levin & Rappaport (1986). The authors distinguish between ADJECTIVAL PASSIVES and VERBAL PASSIVES: passive participles are heads of constructions of the former type, but are regularly formable from heads of verbal passive constructions, i.e. verbs. In Fennistics, although the adjectival properties of participles are commonly acknowledged (e.g. Kangasmaa-Minn 1988: 202, ISK § 297), participles are similarly viewed as first and foremost verbal forms in that the point of departure for examinations of their properties in general is the corresponding finite verb. This mostly concerns traditional studies in the Finnish language, which tend to assign more importance to structural paradigms than to contexts of occurrence. Karlsson (1983: 225ff), for instance, illustrates differences between adjective-like and verb-like participles by making syntagmatic comparisons of their formal features. More recent studies also relate participle constructions they investigate to verbal properties: e.g. Pekkarinen (2011) focuses on constructions with Finnish passive present participles and demonstrates that they do not always fall simply into the verbal categories of passive and present, but display a number of modal meanings<sup>5</sup>.

The most exhaustive study of adjectivally used Finnish participles thus far is Koivisto (1987), where the attributive use of participles is analysed. The sizeable research material used for the study is composed of *Nyky-suomen Sanakirja* (NS) – the biggest dictionary of Finnish available at the time – and a bulk of press articles and literary works from the 1960s-1980s. Koivisto (1987) adopts an approach within the generative paradigm and examines the degree of adjectivisation of different participles with respect to their valence properties and meaning, compared with that of their respective verbs. Adjectivisation is understood as the ability of a participle to function as an adjective and it is studied whether there are contexts in which participles differ in the abovementioned criteria from their respective finite verbs. Therefore, contrary to the approach adopted in the present study, the question is whether or not, rather than to what degree, participles demonstrate adjectival behaviour. Koivisto (1987) distinguishes between adjectivised participles, which are the main interest of her study, and lexicalised participles<sup>6</sup>. The latter

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<sup>5</sup> As a matter of fact, the focus of Pekkarinen (2011) is not on the adjectival properties of participles.

<sup>6</sup> Koivisto (1987) divides participles into four groups: *participles which preserve their verbality*, i.e. those which they get the same arguments as their finite verbs in all contexts, *adjectivised participles*, *lexicalised participles* and the so-called *pronominalised participles*, i.e. participles which function as pronouns

are understood as fully belonging to the class of adjectives and having specialised meanings (Koivisto 1987: 424). Their adjectivisation is considered permanent. Koivisto (1987) is another study which takes the verb as point of departure: generalisations concerning participles are sought in verbs grouped into different semantic types. The grouping principle is the degree of transitivity which is reflected in valence properties of the verbs. Importantly, the method employed in Koivisto (1987) involves analysing whole participial systems of verbs in each of the groups rather than individual participles. For instance, there are 27 adjectivised participles belonging to the paradigms of 20 volitional verbs (*tahtomisverbi*). For 12 of the verbs, only the present active participles are adjectivised, for 1 verb – the present active and present passive participle, for 2 verbs – the present active and the past passive, etc. (Koivisto 1987: 251, 414). Past passive participles are a fairly distinctive subgroup (67%) of adjectivised participles in verbs of processing (*käsittelyisverbi*) (Koivisto 1987: 414).

An approach such as that of Koivisto (1987) rests on the assumption that adjectival participles are those which fail to demonstrate verbal properties in certain contexts. As Koivisto herself remarks, examining the ADJECTIVISATION<sup>7</sup> of participles in such a way involves studying their non-verbality (1987: 434). On the contrary, to take the prototypical adjective as the point of reference and primarily focus on whether participles are actually used as attributes and predicatives, whether they allow degree modification and serve as derivative basis for adverbs, etc., would be to study the ADJECTIVALETY of participles. Both approaches recognise the fact that participles demonstrate properties typical of the other word class. Employing the former one might seem more logical since not all Finnish participles demonstrate the above-mentioned adjectival properties. The idea of this paper is, however, to examine Finnish past passive participles which do, in this sense, behave like adjectives. Thinking in terms of adjectivality, e.g. *mietitty* '(well-)thought-of' and *odotettu* '(long-)awaited, predictable' can function as simple NP modifiers, appear in contexts in which they are univocally interpretable as adjectival predicatives, as well as demonstrate behaviour typical of gradable predicates. Thus, they are closer to the prototypical adjective than, for instance, *koottu* 'gathered' and *huomattu* 'spotted, caught sight of' which do not reveal such properties at all, although there are other contexts in which the morphosyntactic properties of the former two participles are fully verbal.

*Mietitty* '(well-)thought-of' and *odotettu* '(long)awaited, predictable' are examples of participles which can be considered lexicalised. According to Himmelmann (2004), a view on lexicalisation in which it is understood as the emergence of new lexemes is questionable as it emphasises only one aspect of this multi-faceted phenomenon (Himmelmann 2004: 29). Nevertheless, Himmelmann (2004) treats lexicalization as a process and not as a state. Diachronic views on lexicalisation seem to be predominant in contemporary linguistics and are elaborately addressed in Brinton & Traugott (2005). In contrast, synchronic understanding of lexicalisation is generally reduced to one pattern: meanings being lexicalised, i.e. expressed by means of lexical units, as opposed to grammaticised meanings, i.e. ones expressed by grammatical means; for such a view on lexicalisation consult e.g. Talmy (2000). Another possible synchronic interpretation of lexicalisation is as a result of a process, as opposed to the process itself, which happens over time. Historically, past passive participles are adjectives derived from verbal nouns,

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and are not comparable with participles belonging to other groups, e.g. (*viimeksi*) *mainittu* 'last-mentioned, latter' (Koivisto 1987: 5–6).

<sup>7</sup> My capitalisation.

which were interpreted as having passive orientation (Haspelmath 1994: 168). Obviously, it would not be justifiable to claim that participles are more adjectival than verbal because of their historical development, but the historical development provides an interesting research perspective: with lexicalisation viewed as gradable some participles might be less integrated into the paradigms of their respective verbs than others. Judging by the context of their usage, some Finnish past passive participles have multiple meanings, thereby giving rise to a hypothesis that they might be in homonymy with their verbal counterparts. However, drawing the boundary between participles which form such pairs and those which do not is very challenging.

An attempt to provide an answer to the question posed in the title of this subsection is best avoided, because irrespectively of how closely participles resemble adjectives in their morphosyntactic behaviour, they still are productive verbal derivatives. Such categorial ambivalence is typical of participles in almost all languages that have them (Koskinen 1999: 152). By their nature, Finnish past passive participles are therefore non-prototypical adjectives, but some of them, e.g. the aforementioned *odotettu* and *mietitty*, are closer to the prototype than others. Let me now proceed to a more detailed description of Finnish participles, and illustrate their different uses with examples.

## 2.2 Participles in Finnish

Depending on the approach, two, four or six participles are said to operate in the Finnish participial system. According to the most general distinction, there are two participles: the present and the past participle, each of them having an active and a passive form, which makes a total of four participial forms. This makes Finnish interesting since languages typically have asymmetric systems of participles and tend to distinguish present active and past passive participles only (Haspelmath 1994: 154ff). Because of the differences in meaning and function, the four Finnish participial forms are sometimes referred to as separate participles with use of their respective markers: VA for the present active, TAVA for the present passive, NUT for the past active and TU for the past passive participle. Oftentimes, as many as six participles are distinguished, with the agent participle MA and the negative participle MATON in addition to the four mentioned above (cf. Karlsson 2009: 241). Since there is vowel harmony in Finnish, each of the participle markers has two versions. They are illustrated in Table 1 with the examples of participles derivable from *sanoa* 'say' and *hyväksyä* 'accept'. It should be noted that because English and Finnish do not correspond in terms of how participles are formed and used, the English translations provide only a rough orientation in the meanings of Finnish participles. In this paper, I concentrate on past passive participles, i.e. the ones that end with either *-tu* or *-ty*. Examples of them can be found in the highlighted row of Table 1. In Fennistics, past passive participles are referred to as *TU-partisiipit*, literally 'TU-participles', as I shall call them henceforth, for brevity.

Verb			<i>sano-a</i> ‘say’	<i>hyväksy-ä</i> ‘accept’
Present Participle	Active	VA	<i>sano-va</i> ‘saying’	<i>hyväksy-vä</i> ‘accepting’
	Passive	TAVA	<i>sano-ttava</i> ‘to be said’	<i>hyväksy-ttävä</i> ‘to be accepted’, ‘acceptable’
Past Participle	Active	NUT	<i>sano-nut</i> ‘the one who said’	<i>hyväksy-nyt</i> ‘the one who accepted’
	Passive	TU	<i>sano-ttu</i> ‘said’	<i>hyväksy-ty</i> ‘accepted, approved’
Agent Participle		MA	<i>sano-ma</i> ‘said (by)’	<i>hyväksy-mä</i> ‘accepted (by)’
Negative Participle		MATON	<i>sano-maton</i> ‘unsaid’	<i>hyväksy-mätön</i> ‘not accepted’, ‘unacceptable’

Table 1: *The participial system in Finnish*

Some participles have multiple meanings. To take *hyväksyttävä* for example, in (3) it is used in a construction expressing a modal meaning, whereas in (4) it is an adjective, which could be translated into English as ‘acceptable’. With the meaning as in (4), *hyväksyttävä* is found in dictionaries of the Finnish language, including the KTS.

- (3) *Jos päätösten yleislinja on kuitenkin hyväksyttävä, vasemmistolitto pysyy mukana.*  
 if decision.GEN.PL common.front be.PRS.3SG however  
**ACCEPT.PRSP** PR STAY.PRS.3SG within  
 ‘If a common decision line needs to be accepted anyway, the Left Alliance will stay involved.’ (Iltalehti 8.6.2013)

- (4) (...) *jos leikkauksesta on esimerkiksi uskonnolliseen identiteettiin liittyvä hyöty, sen tekeminen on hyväksyttävää.*  
 if circumcision.ELAT be.PRS.3SG for.example religious.ILLAT  
 identity.ILLAT connected.PART benefit.PART it.GEN do.VN  
 be.PRS.3SG **ACCEPT.PRSP.PART**  
 ‘If there are advantages of circumcision, for example those connected with religious identity, then performing it is acceptable.’ (HS 8.10.2013)

An example of an adjectival use of a TU-participle comparable to that of *hyväksyttävä* from (4) is shown in (5). In this example, *odotettu* is used adjectivally and means ‘(long-)awaited’. In its verbal use, the meaning of *odotettu* is in accordance with *odottaa* ‘wait’, cf. (6); the discussion on the formal basis on which the two readings (adjectival vs. verbal) are distinguished will follow in 2.3.

- (5) *Lapsi on hyvin odotettu ja toivottu. Marraskuussa on laskettu aika.*  
 child be.PRS.3SG very **wait.PPP** and hope.PPP November.INESS be.PRS.3SG  
 calculate.PPP time  
 ‘The child is much awaited and hoped for. The birth is due in November.’ (Ilta-Sanomat 23.7.2009)

- (6) Tätä päivää on **odotettu** niin kauan, ettei uuni  
 it.PART day.PART be.PRS.3SG **wait.PPP** so long that.NEG sleep  
 enää maistu.  
 anymore taste.NEG  
 ‘They have been waiting for the day so long that one does not even feel like  
 sleeping.’ (HS 27.4.2013)

In most cases, adjectival TU-participles do not constitute “classical” instances of lexicalisation in that there is no morphological reduction in their structure and their meanings can be predicted from the semantics of their verbal counterparts. This is not the case with *suosittu*: it is the past passive participle of *suosia* ‘favour’, but it is mostly used in its specialised adjectival meaning ‘popular’. Although when *suosittu* is used adjectivally its meaning is not associated with the verb *suosia*, the internal structure of the participle is, this is one of the reasons why we can tell *suosittu* ‘popular’ is lexicalised. If the distinctions between word classes are to be put onto a continuum, then *suosittu* is closer to the prototypical adjective than e.g. *hyväksyty*. Even more lexicalised are *tuttu* ‘familiar’ and *tietty* ‘certain, particular’. They are instances of lexicalisation in its broader sense, meaning they do not belong to verbal paradigms and there is morphological reduction in their internal structure. There are verbal traces observable in the structures of both *tietty* and *tuttu*: they contain the past passive participle marker and can be easily associated with the meanings of *tietää* ‘know’ and *tuntea* ‘know, be familiar with’, respectively. However, they are independent lexical units, not identical to the participles derived from the two verbs: *tiedetty* ‘known’ and *tunnettu* ‘known (e.g. among people)’. For this reason, they are excluded from the present analysis.

An adjectivally used participle in Finnish can typically function both as an attribute and as a predicative (Koivisto 1987: 27). When used attributively, TU-participles demonstrate varying syntactic behaviours: from displaying the full valence of the finite verb, as shown in (7), to standing as simple, i.e. unmodified, modifiers of the head of an NP, as in (8):

- (7) Viisi kertaa **pääministeriksi** **nimitetty** Ecevit  
 five time.PART **prime.minister.TRANSL** **appoint.PPP** PR  
 oli yksi viime vuosisadan merkittävistä hahmoista  
 be.IMPERF.3SG one last century.GEN remarkable.ELAT.PL figure.ELAT.PL  
 Turkin politiikassa, mutta hänen maineensa  
 Turkey.GEN politics.INESS but s/he.GEN reputation.3POSS  
 jäi ristiriitaiseksi  
 remain.IMPERF.3SG contradictory.TRANSL  
 ‘Ecevit, who was five times appointed prime minister, was one of the most  
 remarkable figures in Turkish politics, but his reputation remained  
 controversial.’ (HS 7.11.2006)



- (8) (...) *koulutyö on suunniteltava siten, että koulu on turvattu paikka sekä oppilaille että opettajille.*  
 school.work be.PRS.3SG design.PRSP so that school  
 be.PRS.3SG **safeguard.PPP** place both student.ALLAT.PL and  
 teacher.ALLAT.PL  
 ‘Schoolwork should be designed in such a way that school would be a safe place for both students and teachers.’ (Taloustaito 8/2003, available at aikakaus.fi)

In (7), *pääministeriksi* is an obligatory argument of the verb *nimittää* ‘appoint’ (*nimittää joku joksikin* ‘appoint somebody something’), while *turvattu* as used in (8) does not take the arguments of the verb *turvata* ‘safeguard’. In Finnish, unmodified participles such as *turvattu* in (8), mostly allow modifications by adverbial modifiers, but can function as heads of APs and modify an NP independently. The verbal use of *turvattu*, comparable with that of *nimitetty* in (7), is illustrated in (9), where *turvattu* selects an allative object. Conversely, *nimitetty* cannot function as a simple attribute. Unless it has been clarified who is appointed what in a context (especially in spoken language), a sentence cannot be rendered correct if *nimitetty* is not accompanied by the obligatory arguments of *nimittää*, cf. (10):

- (9) *USA on maailman suurimpana kasvihuonekaasujen päästövaltiona loukannut inuittien ympäristöllisiä ja kulttuurisia oikeuksia, jotka heille on turvattu Amerikan ihmisoikeusjulistuksessa.*  
 USA be.PRS.3SG world.GEN big.SUPERL.ESS greenhouse.gas.GEN.PL  
 emitter.state.ESS violate.PAP Inuit.GEN.PL environmental.PART.PL and  
 cultural.PART.PL rights.PART.PL which **they.ALLAT** **be.PRS.3SG**  
**they.ALLAT** **be.PRS.3SG**  
**safeguard.PPP** America.GEN human.rights.declaration.INESS  
 ‘As the world’s largest greenhouse gas emitter, the United States have violated Inuits’ environmental and cultural rights which had been guaranteed to them in the American Declaration of the Rights and Duties of Man.’ (Kaleva 16.2.2005)
- (10) \**Nimitetty Ecevit oli yksi viime vuosisadan merkittävistä hahmoista Turkin politiikassa, mutta hänen maineensa jäi ristiriitaiseksi.*  
**appoint.PPP** PR be.IMPERF.3SG one last century.GEN  
 remarkable.ELAT.PL figure.ELAT.PL Turkey.GEN politics.INESS but  
 s/he.GEN reputation.3POSS remain.IMPERF.3SG contradictory.TRANSL  
 ‘\*The appointed Ecevit was one of the most remarkable figures in Turkish politics, but his reputation is controversial.’

Thus, as an attribute, *turvattu* can be used both adjectivally and verbally, while in the case of *nimitetty*, the only possible use is verbal. Judging solely by their attributive uses, *turvattu* is closer to the prototypical adjective than *nimitetty*.

The attributive use of Finnish participles has been quite exhaustively studied – it is exactly in the attributive position that Koivisto (1987) examines their adjectivisation. It is a generally accepted fact that the attributive use is the basic function of adjectives, which

is the case, especially if a separate word class of adjectives is to be distinguished<sup>8</sup>. Little attention has, on the other hand, been dedicated to the predicative use of participles, considered a secondary function of adjectives. Some examples of such a use have already been provided (see examples (2), (4) and (5)). Although instances of attributively used adjectival participles are in fact more frequent, I maintain that at least as far as TU-participles are concerned, the predicative use is worth paying special attention to. This is because there are some interesting phenomena which emerge in predicatively used participles, and which reveal interesting facts about their adjectivity.

### 2.3 TU-participles as predicatives

Together with the copula *olla* ‘be’ in third person singular, a TU-participle constitutes the perfect passive form of a verb. When speaking of passive in Finnish, I use the term in accordance with the traditional grammatical description of this language - the Finnish passive is in fact an impersonal in that a transformation of an active clause into the so-called passive involves subject deletion and not demotion, as well as no object-to-subject promotion<sup>9</sup>. The result of a transformation of an active sentence in example (11a) into the so-called passive would be (11b).

- (11) a. *Jose Mourinho on tehnyt päätöksen Chelseaan*  
 PR be.PRS.3SG make-PAP decision.ACC1 PR.GEN  
*kapteenikysymyksessä.*  
 capitan.question.INESS.  
 ‘Jose Mourinho has made the decision concerning Chelsea’s captain.’  
 (Iltasanomat 11.6.2013)
- b. *Päätös Chelseaan kapteenikysymyksessä on tehty.*  
 decision.ACC2 PR.GEN capitan.question.INESS. be.PRS.SG make-PPP  
 ‘The decision concerning Chelsea’s captain has been made.’

Sometimes, the status of a TU-participle in the linear position as that of *tehty* ‘made’ in (11b) is obscure and it can be interpreted either as a constituent of the perfect passive or as a predicative adjective. The two are semantically close to each other, but in the former case, the argument (e.g. *päätös* ‘decision’ in 12) is the direct object, while in the

<sup>8</sup> Adjectives are treated as a universal word class in Bhat (1994) and Dixon (2004). Wetzer (1996) is against such a view claiming that the tendency to argue in favour of adjectives’ universality is due to an Indo-European bias still lingering in the study of languages. Language-specifically for Finnish, consult Pajunen (1994) who treats the adjectival category as universal using the discourse approach.

<sup>9</sup> Whether the Finnish passive can ultimately be analysed under the term PASSIVE is a matter of great dispute. Comrie (1977) argues in favour of such a view and considers the Finnish passive an instance of IMPERSONAL PASSIVE, which has subject removal in common with the PERSONAL PASSIVE. On the contrary, Blevins (2003) separates passives from impersonal constructions, treating the Finnish passive, among other constructions of this type found in Baltic Finnic languages, as an instance of the latter. An interesting approach to the Finnish passive is that of Shore (1986), where the Finnish verbal diathesis is divided into two categories: definite and indefinite, with ‘passive’ constituting the latter. The Finnish indefinite comprises two prototypes, called the P-prototype and the K-prototype, which represent two different uses of the Finnish indefinites: the spoken language-like and written language-like, respectively.

latter, it is the subject of the clause, characterized as ‘well-thought-out’<sup>10</sup>. Accordingly, *oli* in (12) can either be considered an auxiliary or a copula. What follows are temporal differences between the two possible readings – (12) contains an instance of a present perfect or a present tense:

- (12) *Myös pääministeri Jyrki Katainen (kok.) on todennut aiemmin,*  
 also prime.minister PR PR be.PRS.3SG state.PAP earlier  
*että päätös oli harkittu.*  
 that **decision.NOM/ACC2 be.PRS.3SG consider.PPP**  
 ‘Also the Prime Minister Jyrki Katainen (The National Coalition Party) has previously stated that the decision had been given consideration/the decision was well-thought-out’. (yle.fi 4.4.2013)

Such ambiguities can be dissolved thanks to several factors. Apart from the contextual and pragmatic ones (cf. Koivisto 1987: 32, 131), the syntactic properties of the clause or the morphological features of its constituents allow a verbal, but not an adjectival reading of a TU-participle or vice versa. There is subject-predicate agreement in number in a copular clause with an adjectival predicative, whereas the so-called passive lacks such type of agreement. (13a) and (13b) contain elements not distinguished formally, but the two examples receive different interpretations. In (13a), the finite form of *olla* ‘be’ is an auxiliary combined with the passive past participle to form the perfect passive of *hyväksyä* ‘accept, approve’. (13b) is a modification of (13a) into the so-called passive: the form of *olla* ‘be’ in (13b) functions as a copula and the participle as a predicative. Therefore, *hyväksytty* can be interpreted as an adjective with the meaning ‘approved’. Accordingly, the noun phrase *paikalliset tosipohjaiset jutut* in (13a) is in the accusative – one of the two possible cases for the Finnish object, alongside the partitive – whereas in (13b), it is in the nominative and is the subject of the clause. The difference is reflected formally in agreement: the nominative noun phrase in (13b) agrees in number with the verb, but the accusative NP in (13a) does not:

- (13) a. *Mukaan on hyväksytty vain paikallise-t, tosipohjaise-t*  
 along **be.PRS.3SG accept.PPP** only local-ACC.PL truth.based-ACC.PL  
*jutu-t (...).*  
 story-ACC.PL  
 ‘Only local stories based on truth have been accepted (...).’ (HS 11.1.2011)
- b. *Vain paikallise-t, tosipohjaise-t jutut ovat*  
 only local-NOM.PL truth.based-NOM.PL story-NOM.PL **be.PRS.3PL**  
**hyväksytty-jä.**  
**accept.PPP-PART.PL**  
 ‘Only local stories based on truth are approved of.’

Some Finnish verbs govern particular cases, which makes it easy to determine whether a subject of a copular clause or an object of the so-called passive is in question. For instance, the first word in (14) comes in the partitive, which is an obligatory case for

<sup>10</sup> In this context, however, the word meaning ‘decision’ can also appear in the partitive, thus making the reading of *harkittu* unequivocally verbal.

a direct object of *rakastaa* ‘love’. The clause in which *Frederikiä* appears is therefore interpreted as an instance of perfect passive. This is not the case in (15): the word *Prinsessa* is in the nominative, thus receiving an interpretation as subject, characterised by *rakastettu* – a predicative with the meaning ‘beloved’:

- (14) *Frederiki-ä on rakastettu enemmän, ja se näkyy*  
**PR-PART** be.PRS.3SG love.PPP more and it be.visible.PRS.3SG  
*mm. sosiaalisena omatuntona.*  
 among.other.things social.ESS consciousness.ESS  
 ‘They love Frederik more, and it can be seen, among other things, in the social consciousness.’ (HS 24.12.2007)
- (15) *Prinsessa oli perheessämme hyvin rakastettu ja me*  
**princess(NOM)** be.PRS.3SG family.INESS.1PLPOSS very love.PPP and we  
*kaikki muistamme hänet iloisena, hauskana ja nokkelana*  
 all remember.1PL s/he.ACC1 joyful.ESS nice.ESS and smart.ESS  
*persoonana.*  
 person.ESS  
 ‘The princess was dearly beloved in our family and we will all remember her as a joyful, nice and smart person.’ (HS 11.3.2013)

An unambiguous adjectival reading, in turn, is made possible by the fact that when appearing in the predicative position, some TU-participles are subject to case variation between the nominative and the partitive, which is typical of adjectives. In (16), the participle is in the partitive case (*hyväksyttyä*). In this context, the nominative (*hyväksytty*) is also possible:

- (16) *Jouluna harmaa talous on hyväksytty-ä*  
 christmas.ESS black economy **be.PRS.3SG accept-PART**  
*joulukuusikaupassa.*  
 christmas.tree.trade.INESS  
 ‘During Christmas black economy is accepted in Christmas tree trade.’  
 (Kaleva 22.12.2010)

If a participle appears in the partitive case in this position, its reading is univocally adjectival. In plural, TU-participles typically come in the partitive case, as shown in (17a). The use of the nominative plural in this context is rather marginal and restricted to very specific meanings. It is sometimes dismissed as inconsistent with the nature of the Finnish passive since, due to the fact that the nominative plural and the accusative plural are homophonous, a clause containing a participle in the nominative plural might be interpreted as an instance of agreement in number (cf. Hakulinen 1979: 557). Compare *hotellihuoneet* ‘hotel rooms’ in (17b), which receives a translation identical to that of (17a), with (17c), which is the passive version of (17a):

- (17) a. (...) *kaikki pääkaupungin hotellihuonee-t ovat*  
 all capital.GEN hotel.room-NOM.PL **be.PRS.3SG**  
*varattu-ja kesäkuun kahden ensimmäisen viikon*  
**book.PPP-PART.PL** june.GEN two.GEN first.GEN week.GEN  
*aikana (...).*  
 time.ESS  
 ‘(...) during the first two weeks of June, all the hotels in the capital city are  
 (fully) booked (...).’ (HS 3.6.1998)
- b. *Kaikki pääkaupungin hotellihuonee-t ovat varatu-t*  
 all capital.GEN hotel.room-NOM.PL **be.PRS.3SG book.PPP-NOM.PL**  
*kesäkuun kahden ensimmäisen viikon aikana.*  
 June.GEN two.GEN first.GEN week.GEN time.ESS  
 ‘During the first two weeks of June, all the hotels in the capital city are (fully)  
 booked.’
- c. *Kesäkuun kahden ensimmäisen viikon ajaksi*  
 june.GEN two.GEN first.GEN week.GEN time.TRANSL  
**on varattu kaikki pääkaupungin hotellihuonee-t.**  
**be.PRS.3SG book.PPP** all capital.GEN hotel.room-ACC.PL  
 ‘For the first two weeks of June, all the hotels in the capital city have been  
 booked.’

In studies of Finnish participles the case variation in singular is covered only as long as it is relevant to differences in meanings between various constructions, whereby participles are interpreted as constituents of verbal phrases<sup>11</sup>. As I will demonstrate, TU-participles which experience case variation between the nominative and the partitive when used predicatively are among the most adjectival ones.

Not surprisingly, many participles are often used in fixed phrases, such as *ehdottomasti kielletty* ‘strictly forbidden’:

- (18) *Poika erotettiin, koska aseiden tuominen*  
 boy.ACC2 expel.IMPERF.PASS because weapons.GEN bring.VN  
*tarhaan on ehdottomasti kiellettyä.*  
 kindergarten.ILLAT be.PRS.3SG **absolutely forbid.PPP.PART.**  
 ‘The boy was expelled because bringing weapons to the kindergarten is strictly  
 forbidden.’ (HS 12.4.2006)

They also reveal their ambiguous categorial status in many contexts, i.e. they demonstrate adjectival and verbal behaviour at the same time. In (19), *oikeutettu* is used as a predicative, but takes the arguments of the verb *oikeuttaa* ‘entitle’:

<sup>11</sup> Perhaps most attention to the case variation in Finnish participles is given in Pekkarinen (2005), which is a study on present passive participles.

- (19) (...) *vain yksinhuoltaja-äidit ovat olleet*  
 only single.parent-mother.PL **be.PRS.3PL be.PAP.PL**  
*oikeutettuja sosiaaliapuun.*  
**entitle.PPP.PART.PL social.assistance.ILLAT**  
 ‘(...) only single mothers are entitled to social assistance.’ (HS 14.4.1992)

In the section that follows, I take a closer look at TU-participles in contexts in which they do demonstrate fully adjectival behaviour. My primary focus is on those TU-participles which are unequivocally adjectival in the predicative position and examine their adjectivality with respect to other morphosyntactic features. Besides being suited for attributive use, which has already been addressed, these are: serving as a derivative basis for adverbs, as shown in (20), forming comparatives and superlatives, as in (21), being preceded by modifiers typical of adjectives, which is illustrated in (22) and forming antonyms with the use of the prefix *epä-* ‘un-’, cf. (23):

- (20) *Naudan luomujanbeliba on rajoitettu-sti saatavana.*  
 beef.GEN organic minced meat be.PRS.3SG **restrict.PPP-ADV** obtain.PRSPP.ESS  
 ‘Organic minced beef is restrictedly available.’ (HS 30.3.2011)
- (21) a. *Joseph Haydnin pikkuveli Michael Haydn (1737-1806) on*  
 PR.GEN younger.brother PR be.PRS.3SG  
*saanut juopon maineen, mutta oli*  
 gain.PAP drunkard.GEN reputation.ACC1 but be.PRS.3SG  
*kirkkomusiikin säveltäjänä kuuluisaa veljeään*  
 church.music.GEN composer.ESS famous.PART brother.PART.3POSS  
**arvostetu-mpi.**  
**esteem.PPP-COMP**  
 ‘Michael Haydn (1737-1806), Joseph Haydn’s younger brother, gained reputation of a drunkard, but as a church music composer, he enjoyed greater esteem than his famous brother.’ (HS 6.4.2007)
- b. *Nobelillakin kruunattu kirjailija on edelleen*  
 Nobel.Prize.ADESS.PTCL crown.PPP writer be.PRS.3SG still  
**Amerikan luetu-impia.**  
 America.GEN **read.PPP-SUPERL.PART.PL**  
 ‘Crowned with, among others, the Nobel Prize, the writer is still one of the most popular in America.’ (HS 28.10.2008)
- (22) a. *Jälleen se oli melko unohdettu V75-peleissä.*  
 again it be.IMPERF.3SG **quite forget.PPP** V75-game.PL.INESS  
 ‘Again, it was much forgotten in V75-games.’ (HS 7.9.2000)
- b. *Juudaksen evankeliumi oli syntymessäänkin*  
 Judas.GEN gospel be.IMPERF.3SG be.born.IMP2.INESS.3POSS.PTCL  
**hyvin kiistelty.**  
**very dispute.PPP**  
 ‘Even at the moment it appeared, the Gospel of Judas was much disputed.’ (HS 12.4.2006)

- (23) *On epä-oikeutettua olla ottamatta*  
 be.PRS.3SG NEG-justify.PPP.PART be take.INF3.ABESS  
*huomioon subteita, joissa*  
 consideration.ILLAT circumstance.PART.PL which.INESS.PL  
*päätöstä on tehty.*  
 decision.PART be.PRS.3SG make.PPP  
 ‘It is unjustified not to take into consideration the circumstances in which  
 the decision was made.’ (HS 5.9.1998)

### 3 Morphosyntax: trying to measure adjectivality

#### 3.1 Methodology and material

In 2011, I conducted a corpus-based study on the predicative use of Finnish past passive participles (Wójtowicz 2011). My assumption was simple: the greater the number of morphosyntactic criteria of adjectivality a participle meets, the more adjectival it can be considered. The criteria included the following: appearing as unmodified attributes, i.e. modifying the head of an NP while being unmodified itself at the same time (a use such as that of *turvattu* in example (8)), being suited for the predicative use, appearing with degree modifiers, forming comparatives and/or superlatives, adverbs and antonyms. The starting point was first to establish which TU-participles are used predicatively in Finnish newspaper language and then to examine instances of their other possible adjectival uses. I compared the results of my study with those of Koivisto (1987), where adjectivised participles were those which, when used attributively, differed in valence and meaning from their respective verbs.

For the purpose of the research, I selected 81 past passive participles that appeared both as separate entries (39 participles) and in examples illustrating uses of different Finnish words (42 participles) throughout in the WSOY Finnish-English-Finnish dictionary (2008). 81 is a number that can be viewed here as both large and small; seemingly too small to draw definite conclusions about the participial subsystem ‘TU’. On the other hand, the 81 participles constitute a diverse and balanced sample of the whole of the TU-subsystem in that there are random TU-participles present in the group: both adjectival participles (found as separate entries) and ones which tend to display verbal uses (those which appear in sample sentences and examples illustrating uses of various Finnish words). I found it possible to make some interesting generalisations concerning e.g. their semantics. For reasons mentioned in Section 2.2., I excluded *tietty* ‘certain, particular’ and *tuttu* ‘familiar’, as well as participles which function as nouns in Finnish: *ybdistetty* ‘Nordic combined’, *kiblattu* ‘fiancé(e)’ and *prostituoitu* ‘prostitute’.

The research was conducted on the basis of all newspaper articles from years 1990–2011 available on the Internet site of *Helsingin Sanomat* at the beginning of 2011. I looked at the number of criteria of adjectivality met by each participle. A criterion was considered met (+) if there were at least seven different appearances of a participle in a given structure throughout the corpus. The reason for the number being exactly seven is that when I searched through the corpus, the search engine would present seven different contexts where a participle fulfilled a given criterion, whereas if the number was smaller than seven, it was very common that the same contexts of usage (e.g. the same articles) were displayed multiple times.

The results of the study are summarised in 3.2 where all the 81 participles are listed. Participles absent from the list of adjectivised participles in Koivisto (1987, Liite I) are given in capitals. Columns 1 to 8 of Table 2 are the actual criteria of adjectivity examined in Wójtowicz (2011). Column 1 stands for the attributive use. Columns 2 to 4 refer to the predicative use of participles: it is indicated in separate columns whether a participle appeared, together with the copula, in the nominative singular (column 2), partitive singular (column 3) and partitive plural (column 4). Column 5 refers to participles which serve as a derivative basis for *sti*-adverbs. Column 6 stands for participles which can form comparatives and/or superlatives and column 7 – for those preceded by adverbs typically modifying adjectives (*täysin* ‘fully’, *erittäin* ‘highly’, *melko* ‘fairly, pretty’, *varsin* ‘quite’, *aivan* ‘quite’ and *hyvin* ‘very, well’). In column 8, I present a very few instances of antonyms formed with use of the prefix *epä-* ‘un-’ which I found within the corpus. In order that the processing of Table 2 is facilitated, the predicative-section (columns 2-4) and the section referring to the gradable properties of participles (columns 6-7) are marked with thicker lines. + and – indicate whether or not a participle demonstrated adjectival behaviour with respect to a given criterion. If the number of instances was smaller than seven, I marked it as ‘F’ for *a few* or gave the exact figure if there were only one or two appearances. ‘U’ for *unclear* was assigned to those instances where it was not possible to decide whether the reading of the participle is verbal or adjectival.

The greater the count of marks other than minuses was the higher up in the table the participle came. This is probably the most suitable pattern to help identify a general rule concerning the correspondence between the predicative use and meeting other criteria of adjectivity. If the principle had been to count, first and foremost, the number of pluses, then for example *kunnioitettu* ‘esteemed’ would have come much lower. It should also be remembered that differences are not that big after all, this is also the reason to distinguish between ‘+’ and ‘F’. At least when the distribution of criteria fulfilled by e.g. *vihattu* ‘hated’ and *pidetty* ‘liked’ is concerned, they differ from each other less than could be expected judging solely by the number of rows that set them apart.

### 3.2 Results

Participle	Attribute	Predicative			Adverb	Gradable properties		Antonym
		Nom.Sg	Part.Sg	Part.Pl		Comp. and/or	Degree Modifier	
	1	2	3	4	5	6	7	8
1 <i>oikeutettu</i> ‘justified, justifiable’	+	+	+	+	+	+	+	+
2 <i>toivottu</i> ‘hoped for’								
3 <i>ansaittu</i> ‘(well-)deserved’	+	+	+	+	+	F	+	1



Participle	Attribute	Predicative			Adverb	Gradable properties		Antonym
		Nom.Sg	Part.Sg	Part.Pl		Comp. and/or Superl.	Degree Modifier	
	1	2	3	4	5	6	7	8
4 <i>arvostettu</i> ‘(highly) esteemed’ 5 <i>hallittu</i> ‘controlled’ 6 <i>haluttu</i> ‘wanted’ 7 <i>harkittu</i> ‘premeditated’ 8 <i>huoliteltu</i> ‘refined’ 9 <i>rajoitettu</i> ‘restricted, limited’ 10 <i>sallittu</i> ‘allowed’ 11 <i>suosittu</i> ‘popular’ 12 <i>tunnettu</i> ‘(well-)known’	+	+	+	+	+	+	+	–
13 <i>kielletty</i> ‘forbidden’ 14 <i>perusteltu</i> ‘justified’	+	+	+	+	+	F	+	–
15 <i>kiistetty</i> ‘disputed’	+	+	2	+	+	+	+	–
16 <i>kunnioitettu</i> ‘respected’	+	2	–	1	1	F	2	1
17 <i>MIETTITY</i> ‘well thought–out’ 18 <i>taattu</i> ‘guaranteed’ 19 <i>turvattu</i> ‘safeguarded’	+	+	+	+	+	+	–	–
20 <i>HYV.ÄKSYTTY</i> ‘approved’ 21 <i>koulutettu</i> ‘well-educated’ 22 <i>KYSYTTY</i> ‘sought-after’ 23 <i>ODOTETTU</i> ‘expected’	+	+	+	+	–	+	+	–
24 <i>suljettu</i> ‘closed’	+	+	+	+	–	+	+	–
25 <i>pidetty</i> ‘liked’	+	+	1	+	–	+	+	–
26 <i>tunnustettu</i> ‘recognized’	+	+	–	+	+	2	F	–
27 <i>hiottu</i> ‘refined’	+	–	+	–	+	+	F	1
28 <i>liioiteltu</i> ‘exaggerated’	+	+	+	+	–	F	1	–
29 <i>järjestetty</i> ‘organized’	F	+	+	1	–	1	–	1
30 <i>SÄÄNNÖSTELTY</i> ‘rationed’	+	F	F	2	F	1	–	–
31 <i>asuttu</i> ‘inhabited’ 32 <i>KEKSITTY</i> ‘made-up, invented’	+	+	+	+	–	1	–	–
33 <i>tarkoitettu</i> ‘meant, intended’	F	+	1	+	F	–	–	–
34 <i>rakastettu</i> <sup>12</sup> ‘beloved’	+	+	–	+	–	+	F	–
35 <i>unohdettu</i> ‘forgotten’	+	+	–	+	–	F	F	–
36 <i>eristetty</i> ‘isolated’	+	+	–	2	–	+	F	–
37 <i>USKOTTU</i> ‘believed’	+	+	–	+	–	1	F	–
38 <i>määrätty</i> ‘fixed, determined’	+	+	1	–	F <sup>13</sup>	F	–	–

<sup>12</sup> *Rakastettu* is not considered here in its nominal meaning, i.e. ‘lover’.

Participle	Attribute	Predicative			Adverb	Gradable properties		Antonym
		Nom.Sg	Part.Sg	Part.Pl		Comp. and/or Superl.	Degree Modifier	
	1	2	3	4	5	6	7	8
39 <i>vihattu</i> 'hated'	+	F	–	1	–	+	1	–
40 <i>PAKOTETTU</i> 'forced'	–	+	+	+	–	F	–	–
41 <i>VÄÄRENNETTY</i> 'forged'	+	+	2	+	–	–	–	–
42 <i>VARATTU</i> 'reserved, taken'	+	+	–	+	–	1	–	–
43 <i>menetetty</i> 'lost'	+	+	1	F	–	–	–	–
44 <i>KÄSITELTY</i> 'dealt with'	F	+	–	2	–	1	–	–
45 <i>sidottu</i> 'tied'	F <sup>14</sup>	–	–	F	1	+	–	–
46 <i>alennettu</i> 'reduced', 47 <i>ASEISTETTY</i> 'armed' 48 <i>HIMMENNETTY</i> 'dimmed' 49 <i>vakuutettu</i> 'insured'	+	+	–	+	–	–	–	–
50 <i>KEHITETTY</i> 'developed' 51 <i>käytetty</i> 'used'	+	–	–	–	–	+	+	–
52 <i>LYHENNETTY</i> 'shortened' 53 <i>MIEHITETTY</i> 'occupied'	+	+	–	1	–	–	–	–
54 <i>ahdistettu</i> 'harrassed' 55 <i>hylätty</i> 'rejected'	+	+	–	–	–	1	–	–
56 <i>hoidettu</i> 'managed, well-kept'	–	–	2	2	2	–	–	–
57 <i>YMMÄRRETTY</i> 'understood'	–	+	1	1	–	–	–	–
58 <i>koottu</i> 'gathered'	F <sup>15</sup>	–	–	1	–	+	–	–
59 <i>huomattu</i> 'noticed'	F	–	–	1	–	–	F	–
60 <i>luettu</i> 'popular with readers'	+	–	–	–	–	+	F	–
61 <i>KOHDISTETTU</i> 'focused'	F	–	–	–	F	1	–	–
62 <i>VALITTU</i> 'elected'	+	–	–	–	1	1	–	–
63 <i>hävitetty</i> 'destroyed' 64 <i>kadotettu</i> 'lost, wasted' 65 <i>teeskennelty</i> 'feigned'	+	+	–	–	–	–	–	–
66 <i>täytetty</i> 'stuffed, filled out'	+	F U	–	1	–	–	–	–
67 <i>armoitettu</i> 'born (e.g. speaker)'	+	F	–	–	–	–	–	–
68 <i>TIEDETTY</i> 'known'	F	+	–	–	–	–	–	–
69 <i>PÄIVITETTY</i> 'updated'	+	U	–	–	1	–	–	–

<sup>13</sup> In all the three instances, *määrätysti* is modified by *ennalta* 'in advance' and the phrase *ennalta määrätysti* can be translated as 'predeterminedly'.

<sup>14</sup> All instances of the attributive use of *sidottu* 'bound' are in fixed phrases, such as *sidottuja osakkeita* 'restricted shares'.

<sup>15</sup> All instances of the attributive use of *koottu* 'gathered' are in fixed phrases, such as *koottuja teoksia* 'complete works (of a writer etc.)'.

Participle	Attribute	Predicative			Adverb	Gradable properties		Antonym
		Nom.Sg	Part.Sg	Part.Pl		Comp. and/or Superl.	Degree Modifier	
	1	2	3	4	5	6	7	8
70 <i>NAUHOITETTU</i> ‘tape-recorded’	+	1	–	–	–	–	–	–
71 <i>hankittu</i> ‘acquired’	+	–	–	2	–	–	–	–
72 <i>JÄLJITELTY</i> ‘imitated’, 73 <i>MUUNNELTU</i> ‘modified’, 74 <i>PIDÄTETTY</i> ‘arrested’	+	–	–	–	–	–	–	–
75 <i>KASVATETTU</i> <sup>16</sup> ‘brought up’	F <sup>17</sup>	–	–	–	–	–	–	–
76 <i>OSTETTU</i> ‘bought’ 77 <i>PIRRETTY</i> ‘drawn’ 78 <i>VARUSTETTU</i> ‘equipped’	–	–	–	–	–	1	–	–
79 <i>HAVAITU</i> ‘spotted’ 80 <i>rakennettu</i> ‘built’ 81 <i>SJOITETTU</i> ‘placed’	–	–	–	–	–	–	–	–

Table 2: *The morphosyntactic adjectival properties of past passive participles in Finnish.*

### 3.3 Comments

After checking the exact number of appearances within the corpus, I arrived at the conclusion that the participles which were subject to the investigation meet different numbers of criteria used in this research independently of their frequencies of usage. The frequencies of the participles from the uppermost line of Table 2 compared to the frequencies of the lowermost ones were in fact smaller: the two participles displaying the most adjectival behaviour are *oikentettu* ‘justified’ (the number of appearances of *oikentettu* on the HS Internet site: 7, 295) and *toivottu* ‘hoped for’ (8, 558). On the other extreme, there are: *havaittu* ‘spotted’ (6, 016), *sjoitettu* ‘placed’ (15, 720) and *rakennettu* ‘built’ (32, 194). Participles that met the same sets of criteria differed, sometimes quite considerably, in frequency – to mention the example pair of *rajoitettu* ‘restricted, limited’ (5, 769) vs. *tunnettu* ‘(well-)known’ (151, 685).

It is quite obvious that the participles located in the bottom rows of the table are the least adjectival ones from all the 81; they are also missing from the list of adjectivised participles in Koivisto (1987, Liite I). On the other hand, not all of the participles from the upper part of the table are present in Koivisto’s list, either. Of course, the different results are partially due to the type (and size) of research materials and the methodologies used (not all participles are suited for the attributive use as understood in the present

<sup>16</sup> *Kasvatettu* was not examined in the meaning ‘bred’, e.g. *kasvatettu lohi* ‘bred salmon’.

<sup>17</sup> As an attributive, *kasvatettu* ‘raised, brought up’ appears without restrictions only in the phrase *hyvin kasvatettu* ‘well-behaved’. Such a use is, however, adverbial and not degree-modifier and here, *hyvin* is an argument of *kasvattaa* ‘to bring up’ (*kasvattaa joku hyvin* ‘bring somebody up well’). This is an interesting counterexample to the rule according to which *hyvin* precedes its head if its use is degree-modifier and follows it when it is used adverbially.

paper, e.g. *rakennettu* ‘built’). Some participles might also be present in Table 2 but absent from Koivisto’s list and vice versa because of the different discourses of the 1980’s and the present day (e.g. *päivitetty* ‘updated’ or *nauhoitettu* ‘tape-recorded’). Curiously enough, however, there are at least a few participles, such as e.g. *hyväksytty* ‘accepted’ and *odotettu* ‘(long-)awaited, predictable’, which are absent from Koivisto’s list, but display quite a high degree of adjectival behaviour.

Irrespective of how pronounced the adjectival nature of participles is, *oikeutettu* remains a form derivable from *oikeuttaa* and *eristetty* from *eristää* etc., which makes comparisons to the proper finite verbs unavoidable. Transitivity is a commonly addressed verbal feature when passive participles are studied and Finnish does not significantly differ from other languages in that Table 2 almost exclusively contains participles belonging to the paradigms of transitive verbs. An interesting case is that of *pidetty* ‘liked’, which is derivable from *pitää* ‘like’ – an intransitive verb in Finnish. *Pidetty* is used predicatively in the same way as other TU-participles, as shown in (24a). In a corresponding verbal use, however, *pidetty* selects an elative and not an accusative/partitive object – as demonstrated in (24b).

- (24) a. *Tutkimus ei selvittänyt sitä, johtuuko pidetyn*  
 research NEG explain.PAP it.PART result.3G.Q like.PPP.GEN  
*oppilaan maine siitä, että hän puuttuu*  
 student.GEN reputation it.ELAT that s/he intervene.PRS.3SG  
*kiusaamiseen, vai onko kiusaamiseen puuttuminen*  
 bully.vn.ILLAT or be.3SG.Q bully.vn.ILLAT intervene.VN  
*mahdollista, koska hän on pidetty (...).*  
 possible.PART because s/he be.PRS.3SG like.PPP  
 ‘The research failed to explain whether a student’s opinion as liked is because s/he intervenes when somebody is bullying others, or s/he can intervene because s/heis liked.’ (Aamulehti 9.8.2013)

- (24) b. *Tutkimus ei selvittänyt sitä, johtuuko pidetyn*  
 research NEG explain.PAP it.PART result.3G.Q like.ppp.GEN  
*oppilaan maine siitä, että hän puuttuu*  
 student.GEN reputation it.ELAT that s/he intervene.PRS.3SG  
*kiusaamiseen, vai onko kiusaamiseen puuttuminen mahdollista,*  
 bully.VN.ILLAT or be.3SG.Q bully.VN.ILLAT intervene.VN possible.PART  
*koska hänestä pidetään.*  
 because 3SG.ELAT like.PRS.PASS  
 ‘The research failed to explain whether a student’s opinion as liked is because s/he intervenes when somebody is bullying others, or s/he can intervene because others like her/him.’

(24a) is therefore not comparable with (24b) in the way (13b) and (13a) could be compared. However, there are many TU-participles which meet more criteria of adjectivality than *pidetty*, but whose corresponding verbal uses are comparable to that of *hyväksytty* in (13a).

Upon looking at Table 2 it becomes clear that there are no sharp differences between sets of adjectival features which TU-participles display and that the differences in their adjectivality form a continuum. Although adjectival participles do not constitute a clear system, there are some visible patterns in the accumulation of criteria of

adjectivality. Not only is the greatest numbers of criteria met by participles suited for both the attributive and predicative use, but also the distribution of case in participles used predicatively plays a role. TU-participles which are used as predicatives both in singular and plural are most likely to meet other criteria of adjectivality, whereby participles which experience case variation in singular tend to be positioned higher in the table than those which appear in only one of the possible cases – nominative and not partitive, but usually not the reverse. Of the remaining criteria, the demonstration of behaviour typical of gradable predicates is the most prominent one: it is met by a fair amount of the participles listed in Table 2 and not exclusively those suited for the predicative use. Few participles, in turn, form *sti*-adverbs. Criterion 8 is met very rarely, but it seems to be fairly important: participles for which there are (also individual) manifestations of *epä*-antonyms more likely meet the remaining criteria.

## 4 Semantic adjectivality

### 4.1 Context of occurrence

Both the nominative and the partitive in Finnish adjectival predicatives have subject-related functions. For this reason, it is necessary to acknowledge the importance of contextual factors before any discussion on the adjectivality of TU-participles in isolation is commenced.

Other arguments in the clause quite often play a vital role in the interpretation of an adjectival predicative in Finnish. The semantics of both the subject and the predicative is morphologically reflected in the choice of case of Finnish adjectival predicatives. Roughly speaking, in singular, quantitatively indeterminate and divisible NPs<sup>18</sup> trigger the partitive as the case of the adjectival predicative, while quantitatively determinate and indivisible NPs are predicated of by adjectives in the nominative; for a more detailed discussion, consult e.g. Itkonen (1976). Consider (25), where the subject is a collective noun, and (26), which contains a clause with an indivisible subject:

- (25) *Tarpeita ei enää tarvitse tehdä peltiämpäriin ja*  
 need.PART.PL NEG more need.NEG do.INF tin.bucket.ILLAT and  
*henkilökunta on koulutettu-a.*  
 crew be.PRS.3SG educate.PPP-PART  
 ‘(Physiological) needs are no longer satisfied with the use of a tin bucket and the crew are well-educated.’ (Oulu-lehti 31.8.2013)

<sup>18</sup> Or, more precisely: NPs which can have various interpretations with regard to time and quantity due to the fact they are divisible. For more on the so-called NOMINAL ASPECT in Finnish adjectival predication consult Huomo (2007).

- (26) *Kulttuuri sanelee sen, että nainen on vapaampi*  
 culture dictate.PRS.3SG it.ACC1 that woman be.PRS.3SG free.COMP  
*alkoholinkin subteen, kun hän on hyvin*  
 alcohol.GEN.PTCL ratio.ILL when 3SG be.PRS.3SG well  
***koulutettu.***  
**educate.PPP(NOM)**  
 ‘It is a cultural thing that a woman is freer, also with regard to alcohol use, when she is well-educated<sup>19</sup>.’ (Iltalehti 14.4.2008)

Because TU-participles used predicatively in both the nominative and the partitive stand out as probably the most adjectival ones, it is unavoidable to address the type of NPs of which they predicate. Abstract notions form a fairly distinct group of typical subjects of Finnish ‘NP is AP’-clauses with a TU-participle as the predicative. According to Martin (1987), it is difficult to tell whether divisibility or indivisibility is in question when abstract NPs come into play (Martin 1987: 275). It is quite common for the head of the AP in a Finnish copular clause to come in the partitive case if the NP is abstract. This is illustrated in (27), which is an extract from a short article about a little boy who has to lead an isolated life due to his illness. If the NP denotes a concrete entity, as in (28) – extracted from an article about the similarities between sport stars and stars in the sky – it is typically in the nominative:

- (27) *Vaikka elämä on eristetty-ä, vauhtia ja*  
 although life be.PRS.3SG isolate.PPP-PART pace.PART and  
*menoa riittää aamusta iltaan.*  
 going.PART suffice.PRS.3SG morning.ELAT evening.ILLAT  
 ‘Although (his) life is isolated, there is enough pace to keep going from morning till night.’ (Kouvolan Sanomat 12.2.2013)
- (28) *Auringon vetovoima pitää planeettaa radallaan, mutta*  
 sun.GEN gravitation keep.PRS.3SG planet.PART orbit.ADESS.3POSSbut  
*muuten Maa on eristetty ympäristöstään*  
 otherwise Earth be.PRS.3SG isolate.PPP(NOM) environment.ELAT.3POSS  
 ‘The gravitation force of the Sun keeps the planet on its orbit, but otherwise the Earth is isolated from the environment.’ (Turun Sanomat 23.2.2010)

Case variation in adjectival predicatives is one thing; another is appearing in contexts which make the variation possible. To the best of my knowledge, the distribution of NPs having different levels of abstraction in copular clauses has not received any detailed study in Fennistics so far, at least as far as participial predication is concerned. Thus, I propose a hypothesis, based on my non-native-speaker intuition, that it is more likely for abstract NPs to occur with participial predicatives which designate psychological states, attitudes, judgments and other mental processes (e.g. *hyväksytty* ‘accepted’, *harkittu* ‘well thought-out’) rather than results of concrete actions (e.g. *miehitetty* ‘occupied’, *nauhoitettu* ‘recorded’, *sijoitettu* ‘set’). *Rakastettu* ‘beloved’ also refers to a psychological state, but when used predicatively, it does not appear in the partitive singular in the corpus. This may be again explained with factors favouring the choice of

<sup>19</sup> Both *koulutettu* and *hyvin koulutettu* can be translated as ‘well-educated’. Literally, *koulutettu* means ‘educated’.

one of the cases for Finnish adjectival predicatives and not the other: typically, human and animate referents are far more plausible subjects of ‘NP on rakastettu’-clauses than e.g. abstract notions.

Because the semantics of other constituents of the clause may foster the case variation between nominative and partitive in some predicatively used TU-participles, it might seem questionable whether it is TU-participles as such that are more or less adjectival. On the other hand, participles which exhibit the case variation and are suited for predicative use in plural tend to be more likely to meet other criteria of adjectivality examined in this paper. This suggests that they systematically differ from their verbal counterparts.

## 4.2 TU-participles as non-verbs

Most participles which appear in the widest contexts of predicative use are derivable from verbs designating psychological states rather than from highly agentive actions. According to Koivisto (1987), participles with the former meanings are easily adjectivalised because they are typically lower in valence (Koivisto 1987, 106,412). Participles derivable from polysemous verbs which have both abstract and concrete meanings are typically used as adjectives in the abstract meaning, e.g. in the way *rajoitettu* ‘limited’ is used in (29):

- (29) *Kriisiballintatoiminnassa voiman käyttö on poikkeuksellista*  
 crisis.management.INESS force.GEN use be.PRS.3SG exceptional.PART  
*sekä rajoitettua, ja sitä käytetään vain*  
 and limit.PPP.PART and it.PART use.PRS.PASS only  
*pakottavissa tilanteissa”, Halonen sanoi*  
 compel.PRSP.INESS.PL situation.INESS.PL PR say.IMPERF.3SG  
*torstaina Norjan ulkopoliittisen instituutin*  
 Thursday.ESS Norway.GEN foreign-policy.GEN institute.GEN  
*esitelmätilaisuudessa.*  
 official.presentation.INESS  
 “‘In crisis management, the use of force is exceptional and limited; force is used only in very urgent situations”, (President) Halonen said on Thursday in her official talk at the Norwegian Institute of Foreign Affairs.’ (HS 27.10.2007)

Properties of verbal semantics, such as telicity and resultativity, influence the possible uses of participles (see e.g. Volodin 1988). In the present study, the highest number of criteria of adjectivality is met by non-resultative participles, i.e. participles which do not designate states implying a previous event (cf. Nedjalkov & Jaxontov 1988, 5–6). In fact, differences in the semantic domains of level of abstraction and resultativity already help explain why participles such as *väärennetty* ‘falsified’ fail to demonstrate adjectival behaviour in contexts other than predicative and attributive use. On the other hand, resultative participles are also found in upper rows of Table 2. *Järjestetty* ‘(well-)organised’ derivable from *järjestää* ‘organize’ is one of them. Its adjectival use is shown in (30a). (30b) illustrates a corresponding verbal use:

- (30) a. *Jublapuheiden mukaan, veteraanikuntoutus on hyvin järjestettyä ja tehokasta.*  
 keynote speech.GEN.PL according veteran rehabilitation be.PRS.3SG  
 very **organise.PPP.PART** and effective.PART  
 ‘According to the keynote speeches, the rehabilitation of veterans is very (well-)organised and effective.’ (HS 27.4.2008)
- b. *Laatukilpailu on järjestetty vuosittain 1992 alkaen ja ainoa suomalainen voittaja tähän mennessä on Nokia.*  
 quality.competition be.PRS.3SG **organise.PPP** yearly 1992  
 start.INF2.INSTR and only Finnish winner until now  
 on Nokia.  
 be.PRS.3SG PR  
 ‘The quality competition has been organized on a yearly basis since 1992, and its only Finnish winner so far is Nokia.’ (HS 30.5.2002)

While (30b) shows a resultative use of *järjestetty*<sup>20</sup>, it is unclear whether the participle in (30a) is resultative. Intuitively, it can be said that *järjestetty* in (30a) is less related to organising anything by anybody than in (30b). *Järjestetty* as used in (30a) designates a property of being operationally efficient, which does not necessarily imply that the event designated by *järjestetty* in (30b) has occurred<sup>21</sup>. In (30), the difference in meaning (property vs. event) coincides with the difference in syntactic function (predicative vs. constituent of the passive construction). Many participles from the upper part of Table 2 are used adjectivally in meanings which are in the same way different from those of their verbally used counterparts. The following two example pairs illustrate these differences: in examples (a), *odotettu* ‘expected, predictable’ and *perusteltu* ‘justifiable’ refer to properties, whereas examples (b) contain their verbal counterparts used in meanings which bear direct relation to the events denoted by *odottaa* ‘expect, wait’ and *perustella* ‘justify’, respectively:

- (31) a. *Kullan, hopean ja kahden pronssin saalis oli hyvin odotettu ja aika lailla sellainen, mitä viisimiljoonaiselta kansalta voi odottaa.*  
 gold.GEN silver.GEN and two.GEN bronze.GEN loot be.IMPERF.3SG  
 very **expect.PPP** and quite a lot such what.PART five.million.ABL  
 nation.ABL can.PRS.3SG expect  
 ‘A total of one gold, one silver and two bronze medals was very predictable, quite a lot of what one could expect from a five-million nation.’ (Turun Sanomat 25.8.2008)

<sup>20</sup> In this particular example, the meaning of *järjestetty* is also iterative.

<sup>21</sup> The fact participles appear in conjunction with adjectives, like *järjestetty* in (30a), is another factor speaking in favour of their adjectivity.



- b. *Huhtikuun inflaatio oli myös hieman korkeampi, kuin*  
 April.GEN inflation be.IMPERF.3SG also a bit high.COMP than  
*markkinnoilla oli odotettu.*  
 market.ADESS.PL be.IMPERF.3SG **expect.PPP**  
 ‘Also in April, the inflation was a little higher than it had been expected on  
 the markets.’ (HS30.4.2012)

- (32) a. *Jokaisen jäsenvaltion tulisi ehdottaa*  
 every.GEN member.state.GEN come.COND.3SG recommend  
*komissaarin virkaan sekä naista että miestä.*  
 commissar.GEN office.ILLAT both woman.PART and man.PART.  
*Siksikin on perusteltua, että EU-vaaleihin*  
 therefore.PTCL be.PRS.3SG **justify.PPP.PART** that EU-elections.ILLAT  
*osallistuvat puolueet muistavat tämän (...).*  
 participate.PRSAP.PL party.PL remember.PRS.3PL it.ACC  
 ‘Each member state should recommend a man and a woman for the  
 commissar’s position. Also because of this, it is reasonable for parties  
 running for the EU-elections to remember it (...).’ (HS 20.10.2012)

- b. *Tukia on perusteltu aluepolitiikalla.*  
 support.PART be.PRS.3SG **justify.PPP** regional.policy.ADESS  
 ‘They justified the support by regional policy.’ (HS 12.10.2013)

Dixon (2004: 7–8) notes that copula clauses differ considerably from transitive clauses in that they do not form a type of VPs (in a traditional NP-VP distinction). A copula clause is composed of a copula verb and a copula complement and it is the sole copula that constitutes the “VP”, while the copula complement is a separate argument which distinguishes copula clauses from transitive and intransitive ones. Following this distinction, the syntactic difference between participles referring to properties and events in the examples above is explicable by the fact that participles from examples (a) are adjectival copula complements and those from examples (b) – are parts of transitive verbal predicates. Resorting to the notion of boundedness helps bring to surface also the semantic differences in event-relatedness between adjectivally and verbally used TU-participles.

### 4.3 TU-participles as adjectives

#### 4.3.1 Boundedness

The term BOUNDEDNESS is commonly employed to make aspectual distinctions between events reaching an endpoint and those which continue. Thus, bounded and unbounded events are distinguished. Kiparsky (1998: 14) notes that “boundedness is a property of situations and not just of individual predicates in isolation”. On the contrary, Paradis (2001) considers boundedness an inherent lexical feature of adjectives, which is associated with gradability. Since the present article approaches participles as adjectives, it assigns particular importance to boundedness understood as in Paradis (2001). On the other hand, the difference between these two approaches to boundedness is ultimately down to generative vs. cognitive views on language and it is not my purpose here to take a stance on whether it is events or lexemes that can receive interpretations in the domain of boundedness. Taking these two different points of view on boundedness into roughly

equal consideration, then, participles as adjectives are unbounded or bounded while their respective verbs refer to bounded or unbounded events. An adjectival participle receives interpretation as bounded if it is preceded by a proportional modifier and does not form comparatives and superlatives. Accordingly, a participle is interpreted as unbounded if it is modified by a degree modifier and forms comparatives and superlatives. Especially the type of adverbial modifiers the participle is preceded by plays a role (see discussion below). If the verbal counterparts of participles select accusative (total) objects, they refer to bounded events and if partitive (partial) objects to unbounded ones. By this token, event-related participles are those which receive same interpretations in the domain of boundedness as their verbal counterparts. If there are distinctions in this domain between adjectivally and verbally used participles, the former are less event-related, as the properties they denote fail to take similar values with respect to gradability to those of verbally used ones.

Gradability is characteristic of all predicates that can be associated with scale (Cabredo Hofherr 2010: 3), including adjectives. The term SCALE as understood by Kennedy & McNally (2005) refers to a structure of sets of degrees onto which predicates order their arguments. A scale can have extreme elements, in which case it is closed, or lack them, whereby it is an open scale. Adjective scales demonstrate varying structural properties: there are totally closed scales, characteristic of adjectives having maximum and minimum elements, such as *full*; upper closed, for adjectives that have maximum but lack minimum element (e.g. *pure*); lower closed, for those that have minimum but lack maximum element (e.g. *quiet*); and totally open, in the case of adjectives such as *open*, i.e. those that have neither maximum nor minimum elements. Roughly speaking, adjectives with totally open scales typically have context-dependent standards of comparisons (the comparison class is introduced by the meaning of a positive adjective within the context), whereas for other types of scales, the standard of comparison is largely determined by lexical properties. The scalar properties of an unbounded predicate are revealed by its appearance in comparative constructions and being modified by degree modifiers. In Finnish, these are e.g. *varsin* ‘quite’ and *melko* ‘fairly’. Bounded predicates, which have upper closed scales, can be modified by proportional modifiers, such as Finnish *täysin* ‘fully’, and do not normally form comparatives or superlatives<sup>22</sup>.

In Table 2, we find quite a large group of participles displaying properties typical of gradable predicates. *Oikentettu* ‘justified’ – one of the two participles which meet the largest number of criteria of adjectivity – appears in contexts where it receives an interpretation as unbounded, while its corresponding verb refers to a bounded event<sup>23</sup>:

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<sup>22</sup> Consult Paradis (2001) for different names of modifiers – ‘scalar modifiers’ vs. ‘totality modifiers’ – which reflect a different conceptualisation of scale. According to Paradis (2001), not all objects of adverbial modification can be mapped onto a scale: this is the case in the so-called limit adjectives such as *dead* and *alive*. Following the interpretation suggested in Kennedy & McNally (2005), these two would have one value on their partially closed scales: *dead* on a lower-closed and *alive* on an upper-closed scale, respectively.

<sup>23</sup> Again, I am much obliged to the anonymous reviewer for focusing my attention on an important fact: the verb *oikenttaa* has two meanings: ‘entitle to sth’ and ‘justify sth’ and it is in the latter one to which a lexicalised *oikentettu* should be compared.

- (33) *Joskus on myös hyvä kysyä, miksi aikuisten mielipide*  
 sometimes be.PRS.3SG also good ask.INF why adult.GEN.PL opinion  
*on oikeutetumpi kuin lapsen.*  
 be.PRS.3SG **justify.PPP.COMP** than child.GEN  
 ‘Sometimes it is good to ask why the opinion of adults is more justified than  
 that of children.’ (yle.fi 18.8.2011)

The other most adjectival participle, *toivottu* ‘hoped for’, is, in turn, unbounded as is the event denoted by *toivoa* ‘hope’, cf. (34); *toivoa* selects a partitive object. Again, adjectivality and non-verbality seem to not always go together. Judging by the appearance in comparative constructions, *toivottu* is more event-related than *oikeutettu*.

- (34) *Kiinassa poikalapset ovat oikeastaan aina olleet*  
 China.INESSmale.child.PL be.PERF.3PL actually always be.PAP.PL  
*tyttöjä toivotumpia (...).*  
 girl.PART.PL **hope.PPP.PART.PL**  
 ‘In China, boys have actually always been more hoped for than girls (...).’  
 (Suomen Kuvalehti 2.10.2013)

The distribution of comparatives is, however, more context-dependent than that of degree modifiers as the possibility that comparatives and superlatives occur in a given context largely depends on the semantics of other elements in the clause (cf. Kennedy & McNally 2005: 368). The vast majority of participles which display properties typical of gradable predicates meet both criteria of gradability employed in this paper. According to the assumptions concerning boundedness, degree modifiers would be supposed to modify participles which refer to unbounded events, i.e. have upper open scales. This is often the case, cf. (35–36):

- (35) *Vantaan Lauri on Vantaalla joka tapauksessa tutkimuksen*  
 PR be.PRS.3SG Vantaa.ADESS any case.INESS research.GEN  
*perusteella varsin luettu.*  
 basis.ADESS **quite read.PPP**  
 ‘Judging by the results of the research, *Vantaan Lauri* is, in any case, quite  
 popular with readers (lit. quite read) in Vantaa.’ (kotimaa24.fi 13.12.2011)

- (36) *Maynie Sirén oli chanson-laulajattarena erittäin arvostettu,*  
 PR be.PRS.3SG chanson-singer.ESS **very esteem.PPP**  
*mutta Suomessa hänen edustamansa alue oli*  
 but Finland.INESS 3SG.GEN represent.AGPTCP.3POSS field be.IMPERF.3SG  
*marginaalinen.*  
 marginal  
 ‘As a chanson singer, Maynie Sirén was highly esteemed, but in Finland, the  
 field she represented was marginal.’ (HS 19.12.2003)

The occurrence of participles whose respective verbs refer to bounded events with degree modifiers is, however, not uncommon, either; cf. (37–38):

- (37) (...)Heinonen on tänä päivänä **melko unohdettu**, lähinnä  
 PR be.PRS.3SG this.ESS day.ESS **fairly forget.PPP** mainly  
*vain vanhempien ihmisten muistama, jos heidänkään.*  
 only old.GEN.PL people.GEN remember.AGPTCP if 3PL.GEN.NEG.PTCL  
 ‘Heinonen is pretty forgotten these days, mainly remembered only by older  
 people, if at all.’ (elokuvauutiset.fi 22.7.2012)
- (38) *The King’s Sisters* on englantilainen miesääninen laulu-yhtye,  
 PR be.PRS.3SG English male.lead.singer music.band  
*joka on meilläkin varsin tunnettu.*  
 which be.PRS.3SG 1PL.ADESS.PTCL **quite know.PPP**  
 ‘The King’s Sisters is an English band with a male lead singer; the band is quite  
 well-known also in here.’ (yle.fi/radio 9.1.2013)

Not surprisingly, the only proportional modifier studied in the present paper – *täysin* ‘fully’ – mostly appears together with participles having bounded interpretations, in accordance with the structure of events denoted by their corresponding verbs, cf. (39–40):

- (39) “*Termi torjuntavoitto on täysin perusteltu*,” Manninen  
 term defensive.victory be.PRS.3SG **fully justify.PPP** PR  
*sanoi.*  
 say.IMPERF.3SG  
 ‘“The term ‘defensive victory’ is fully justified,” Manninen said.’ (HS 5.9.2004)
- (40) *Milanin voitto oli täysin ansaittu*, sillä se  
 Milan.GEN victory be.IMPERF.3SG **fully deserve.PPP** because it  
*juoksi valtavalla sykkeellä ja vaikutti*  
 run.IMPERF.3SG great.ADESS pulse.ADESS and seem.IMPERF.3SG  
*vaarallisemmalta läpi ottelun.*  
 dangerous.COMP.ADESS throughout match.GEN  
 ‘(FC) Milan’s victory was fully deserved because they were running at a high  
 heart rate and seemed more dangerous throughout the game.’ (HS 21.2.2013)

Again, *täysin* also modifies participles derivable from verbs denoting unbounded events, thereby giving participles interpretation as bounded, cf. (41):

- (41) *Oopperan kummituksen mahtipontisuus ja romanttinen paatos ovat*  
 PR.GEN pomposity and romantic pathos be.PRS.3PL  
**täysin harkittuja** *Ennio Morriconen ylenpalttista*  
**fully consider.PPP.PART.PL** PR.GEN overwhelming.PART  
*musiikkia myöten (...).*  
 music.PART according  
 ‘The pomposity of The Phantom of the Opera and its romantic pathos are fully  
 premeditated, in accordance with Ennio Morricone’s overwhelming music.’  
 (HS 30.7.1999)

Finally, some participles receive interpretations both as bounded (42) and as unbounded (43):

- (42) *Kari Jalosen valinta tulevaksi Leijona-päävalmentajaksi ensi kauden*  
 PR.GEN choice future.TRANSL lions-main.coach.TRANSL next season.GEN  
*jälkeen oli täysin odotettu.*  
 after be.PRS.3SG fully expect.PPP  
 ‘Choosing Kari Jalonen as the coach of the Finland’s national team for after the  
 next season was fully predictable.’ (yle.fi 7.6.2013)
- (43) *Jo syyskuun parlamenttivaalien tulosten jälkeen*  
 already September.GEN parliamentary.elections.GEN result.GEN.PL after  
*oli varsin odotettua, että hallituksen*  
 be.IMPERF.3SG quite expect.PPP that government.ACC1  
*muodostavat Solbergin johtama konservatiivinen Høyre ja Siv*  
 form.PRS.3PL PR.GEN lead.AGPTCP conservative PR and PR  
*Jensenin johtama oikeistopopulistinen edistyspuolue.*  
 PR.GEN lead.AGPTCP right.wing populist  
 ‘Already after the September’s elections it was quite predictable that the  
 government would be formed by the conservative *Høyre* run by Solberg and Siv  
 Jensen’s right-wing populist Progress Party.’ (HS 16.10.2013)

Adjectival participles designate properties which, judging by the differences in the domain of boundedness, sometimes are relatively distantly related in semantics to their verbal counterparts. Those “surprising” uses of adverbial modifiers mostly concern participles which are interpreted as unbounded, but their corresponding verbs - bounded. Generally speaking, the uppermost rows of Table 2 contain participles which designate properties interpretable as unbounded, irrespectively of whether participles’ corresponding verbs refer to bounded or unbounded events.

#### 4.3.2 TU-participles as value adjectives

Many of the participles found in the uppermost rows of Table 2 are translated into English with the use of *well-*. In contexts in which they receive interpretations as unbounded, they denote properties of a certain type, namely values<sup>24</sup>. They are semantically comparable with adjectives such as *hyvä* ‘good’, whose scales similarly have no maximum (nor minimum) elements. The formation of polarity-reversing *epä-*antonyms is only possible for participles which refer to values<sup>25</sup>:

- (44) *Jotain vakavaa ja epätoivottua*  
 something.PART serious.PART and NEG.hope.PPP.PART  
*tapabtui ensimmäistä kertaa.*  
 happen.IMPERF.3SG first.PART time.PART  
 ‘Something serious and unwanted happened for the first time.’ (HS 14.12.2010)

<sup>24</sup> In Koivisto (1987), they are characterised as ‘positively (or negatively) loaded’ (*positiivisesti latautuneita*), cf. e.g. Koivisto (1987: 250) for *toivottu* ‘hoped for’.

<sup>25</sup> Though, not all value participles have *epä-*antonyms. This is explicable by the fact that they are in relations of opposition with corresponding MATON-participles which have negative meaning. On the other hand, not all of the negative participles have TU-participles as their positive counterparts. For more discussion on the relations of opposition in Finnish consult Hakanen (1973).

Be it positive or negative, participles referring to values generally demonstrate more adjectival behaviour than participles which refer to properties which are in this sense neutral. Value TU-participles indeed appear in a number of constructions typical of adjectives, such as in the construction with an infinitive subject:

- (45) *Ei liene liioiteltua väittää, että tietty*  
 NEG be.POT.NEG **exaggerate.PPP.PART** claim that certain  
*hyperkapitalistinen ylensyöminen on tullut tiensä*  
 hypercapitalistic overconsumption be.PRS.3SG come.PAP way.GEN.3POSS  
*päähän (...).*  
 end.ILLAT  
 'It is probably not exaggerated to claim that a certain type of hypercapitalistic overconsumption has come to an end.' (Turun Sanomat 31.1.2012)

Value TU-participles form a small, but relatively distinct group that can be considered a subgroup of the adjective class VALUE in Finnish. VALUE is one of the classes of prototypical adjectives (Dixon 1977, 2004); however, compared to value adjectives such as e.g. *huono* 'bad' and *hauska* 'nice, funny', TU-participles are too obviously analysable as complex units and their link to the verbal meaning is too strong for them to be considered close to the prototype.

## 5 Summary and conclusions

This study has shown that paying special attention to Finnish past passive participles used predicatively helps bring to surface interesting facts about their adjectivity. When appearing together with an inflected form of *olla* 'be' in third person singular, adjectivally used TU-participles differ from their verbal counterparts not only in syntactic terms, but also with respect to semantics. Namely, participles used predicatively refer to properties of different kinds (e.g. values) and not to events. Although participles under investigation are too clearly identifiable as belonging to the paradigms of their corresponding verbs, in some cases differences in event-relatedness between adjectivally and verbally used participles are quite big. This can be told on the basis of distributions of formal expressions of grade, which reveal differences in the domain of boundedness between properties and events. The use of adverbial modifiers with certain participles shows that it is properties denoted by participles that are graded and not the events denoted by verbs. For example, *hyväksytty* 'acceptable, approved of' receives interpretation as unbounded, while its respective verb *hyväksyä* 'accept, approve' refers to a bounded event. For this reason, *hyväksytty* can be considered an adjective in its own right, albeit a non-prorotypical one. On the other hand, it is difficult to say how event-related participles are which receive the same interpretations in the domain of boundedness as their verbal counterparts. Any recommendations by a non-native speaker to add to the list of participles distinguished as separate dictionary entries should be made with caution and it is also worth remembering that issues such as proportions between "surprising" and "regular" uses of adverbial modifiers, frequencies of usage of participles in the adjectival and verbal meaning, etc., remain unaddressed in this paper. The above notwithstanding, I hold the view that judging by the range of their morphosyntactic adjectival behaviour and the differences from their verbal counterparts, it is justified to

recognise participles such as *hyväksyty* ‘acceptable, approved of’, *järjestetty* ‘well-organised’, *odotettu* ‘predictable’ and *unohdettu* ‘forgotten’, as well as *pidetty* ‘liked’, as separate lexical items.

Although Table 2 in Section 3 reveals that resembling the prototypical adjective is not only a matter of accumulation of morphosyntactic adjectival properties, it shows that they help identify some general tendencies. The most adjectival of all the TU-participles studied in this paper are those which function as simple attributes, as predicatives in singular and plural, possibly both in the nominative and the partitive singular, and receive unbounded interpretations as modified by degree modifiers. While in many cases ‘adjectival’ equals ‘non-verbal’, the most adjective-like participles do not necessarily need to be the least verb-like ones – consider for example *toivottu* ‘hoped for’ and *pidetty* ‘liked’.

There certainly is room for more exploration, e.g. a careful examination of the distribution of different degree modifiers would probably give a better insight into the scalar properties of TU-participles, and thus help portray their semantics in a more precise manner. The discussion on event-relatedness also remains open as this paper has unearthed the phenomenon, but only partially managed to explain its nature.

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