THE ROLE OF INTER- AND INTRALINGUAL FACTORS AND COMPENDIUMS IN ACQUISITION OF SWEDISH AS A FOREIGN LANGUAGE: THE CASE OF FINNS LEARNING DEFINITENESS AND THE USE OF ARTICLES[1]

EEVA-LIISA NYQVIST
University of Helsinki
eeva-liisa.nyqvist@helsinki.fi

Abstract
This study explores the acquisition of definiteness and article use in written Swedish by Finnish-speaking teenagers (*n*=67) during the three years in secondary school. The studied grammatical phenomena are problematic for all L2 learners of Swedish and are especially difficult for learners, such as Finns, whose L1 lacks expressive definiteness morphologically.

The informants produce complex NPs already in their first narratives. The form of NPs poses significantly more problems than the choice of a correct form of definiteness. Hence, it is possible that previous knowledge in English helps informants in the choice of definiteness. The common nominator for problematic expressions is simplification, in both formal aspects and in the relation between form and meaning. Previous research in Sweden has made similar findings. The most central types of NPs build an acquisition explainable by a complexity hierarchy between the different types of NPs. The informants master best NPs without definiteness markers. Definite singulars containing an ending are significantly easier than indefinite singulars, the indefinite article of which is notoriously difficult for Finns learning Swedish as an L2. This acquisition order, however, profoundly differs from the traditional order of instruction of their compendiums.

Keywords: Swedish, definiteness, use of articles, third language acquisition, Finnish

1. Introduction

Finland is a plurilingual country with two official languages. In 2013, circa 90% of the population spoke Finnish and circa 5% of the population spoke Swedish as their first language (henceforth L1; Statistics Finland 2014). Hence, the Finnish-speaking pupils learn Swedish and the Swedish-speaking pupils learn Finnish at all levels of education from the compulsory basic education to the university (*Basic Education Act* 628/1998; *General Upper Secondary Schools Act* 629/1998 and *Government Decree on University Degrees* 794/2004).

---

[1]　This article is based on my doctoral dissertation (Nyqvist 2013).

The first foreign language for Finnish-speaking pupils, commonly called the syllabus A language in the Finish school system, is typically English, beginning at the latest at the third grade (at the age of 9). Hence, the majority of pupils begin to learn Swedish as a syllabus B language at the seventh grade (at the age of 13). (FNBE 2014.) Thus, the vast majority of Finns actually learn Swedish as a third language (henceforth L3).

The most recent survey of learning results in secondary school (Tuokko 2009) covering the learning results in Swedish of 5300 Finnish-speaking students in the final grade of compulsory basic education (15 years old) shows that Swedish proficiency of only 21% of the students reaches the level "good": 27% of the students exceed this level and more than 50% remain below it. The results are weakest in language production. The level of Swedish skills has declined, especially in grammar, after 2002, when a previous survey (Tuokko 2002) was conducted. The main reason for this development is that instruction nowadays focuses on communicative activities. Grammatical features are, still, necessary for comprehensibility, and grammatical knowledge is especially important for the ability to write comprehensible language and to facilitate understanding in communication (Ellis 2005). Definiteness and the use of articles, especially, has been reported to pose problems (Karppinen and Sarkkinen 1995). Hence, the aim of this study is to explore how Finnish-speaking pupils learning B-syllabus Swedish use the different definiteness forms of Swedish nouns and express the different definiteness meanings and what kinds of problems they have in grades seven through nine.

It is important to note that the role of compendiums that consist of study texts, and exercises on vocabulary, grammar and communication is considerable in acquisition of Swedish as a second language (henceforth L2) in Finland. The input is indispensable for all second-language acquisition (henceforth SLA), and the compendiums actually build the principal input source for Finnish-speaking L2 learners of Swedish, as Swedish is, *de facto*, a foreign language for most L2 learners. The Swedish-speaking population mainly lives on the coastal areas of Finland, and many Finns lack everyday contact with Swedish even if they live in the bilingual areas. Swedish teachers are, naturally, likely to speak Swedish during lessons, but how much and how they speak varies.

The considerable typological differences between Finnish and Swedish (see *Definiteness in Swedish and in Finnish* below), but rather small differences between Swedish and English, also lead to many interesting research questions. The SLA research has shown that the previous L2s play a greater part in the learning of a L3 than was expected (e.g., Hammarberg 2007: 51–52). Secondly, the rich inflectional system of Swedish may pose problems for learners irrespective of the L1 (see *Previous research* below). As only one language out of three in the world expresses definiteness morphologically, and only 8% of the languages of the world have both indefinite and definite article (Haspelmath 1998: 274), Swedish actually belongs to the minority. Hence, traits typical of Finnish learners of L2 Swedish can be expected to be typical of L2 learners of

Swedish with many different L1s lacking articles: e.g., Polish-speaking L2 learners of Swedish have been reported to omit articles and overuse pronominal attributes, which is also typical of Finnish-speaking learners of L2 Swedish (Eriksson and Wijk-Andersson 1988; Axelsson 1994). In the following, I will use the term L2 when referring to any language acquired after the L1, and the term L3 when the fact that the informant has acquired another L2 before the actual one can be assumed to have relevance (Hammarberg 2007: 51– 52).

2. Objective, data and methods

The objective of this study is to analyse how Finnish-speaking pupils (n=67) in comprehensive school living in a town in Southern Finland express the definiteness in their written L2 Swedish and how their proficiency develops from the seventh to the ninth grade (at the age of 13–15 years). Material was collected for the first time in the spring term in the seventh grade (henceforth S7), twice in the eighth grade (once in the autumn and the spring term, henceforth A8 and S8) and three times in the ninth grade (twice in the autumn term, once in the spring term, henceforth A9 and S9; the two texts of A9 are treated as one text). Only informants who have written at least four narratives are included in the study.

Table 1. The material

Writing moment	Titles of the narratives	n
Spring term 7th grade	*My hobby*	64
Autumn term 8th grade	*My trip*	58
Spring term 8th grade	*My friend*	62
Autumn term 9th grade	*My favourite band/singer*	64
	My leisure	63
Spring term 9th grade	*Me – a 9th grader!*	60

The topics of the narratives relate to the informants' everyday life and are such that they are present in their compendiums in accordance with the *National Core Curriculum for Basic Education* (FNBE 2004). The narratives were written during lessons, and the informants were given advice concerning vocabulary. The narratives include 4379 noun phrases (henceforth NPs): 641 in S7, 555 in A8, 653 in S8, 1677 in A9 and 853 in S9.

The NPs in the material are analysed at the phrase level. It is a fundamental presumption that certain NP types are easier than others, and the grammatical environment of a noun therefore plays a central part. An analysis at the word level would lead to a loss of information, as one could not say whether a high frequency of indefinite forms depends on a high frequency of indefinite referents

or on a high frequency of, e.g., possessive attributes constructed with indefinite nouns (see *Definiteness in Swedish and in Finnish* below). The categories for different NP types follow traditional grammar, e.g., *indefinite singular* or *definite plural*. Since definiteness involves both form and meaning (see *Definiteness in Swedish and Finnish* below), I will also analyse the different types of definite and indefinite meaning occurring in the NPs. This classification originates from the meaning types described in *Svenska Akademiens grammatik* ("Grammar of the Swedish Academy, henceforth SAG, see *Obligatory occasions* below). The research questions and hypotheses are the following:

1. How frequent are the different NP types? Are there any differences among grades seven through nine? Hypothesis: The most common NP types occur already in S7, but the most complex ones (for definition, see 5.2 below) occur only in the later narratives.
2. How does accuracy evolve during grades seven through nine? Hypothesis: accuracy scores rise in all kinds of NPs, but the most complex ones remain difficult in the ninth grade.
3. What kind of difficulty hierarchy is there between the studied NPs? Does it resemble the acquisition order predicted in the processability theory (Pienemann 1998) or the results of Axelsson's study (1994, see below)? Hypothesis: the most complex NPs are acquired last.
4. Does the majority of the inaccuracies concern the choice of definiteness (e.g., indefinite form in an obligatory occasion for definite form, henceforth *definiteness inaccuracies*) or the form of the NP (e.g., omission of an article, henceforth *formal inaccuracies*)? Hypothesis: the formal aspects are more difficult, as the informants can exploit their previous knowledge of English in the choice of definiteness.

The method in the study is mainly quantitative, albeit inputting the material in the Microsoft Access analysis programme has involved an extensive qualitative analysis: all NPs have been coded by writing moment (S7–S9), form (singular/plural; definite/indefinite; occurrence of pronominal or genitive attributes, see below), meaning (definite/indefinite), and accuracy. As the informants produced only a little text per person, the analysis occurs on the group level.

The analyses concern the whole performance, i.e., both correct and incorrect use of NPs. The analyses are based on the obligatory occasions, i.e., which are forms the informants should produce according to the norm of the target language. As Finnish schoolchildren typically learn Swedish in the classroom, their production is compared with the norm given in their compendiums. Thus, the analyses involves a study about how fully they have acquired the studied linguistic features (Ellis and Barkhuizen 2005).

The performance analysis encompasses calculation of frequencies by dividing the number of obligatory occasions of a NP type by the total number of NPs. The frequencies are also compared with those in the texts in the compendiums the informants have used (henceforth Series A and B). The

accuracy scores are calculated by dividing the number of correct obligatory occasions of a NP type by the total number of obligatory occasions of the NPs type. The normative analysis aims at identifying aspects of definiteness still posing problems for L2 learners of Swedish after three years of acquisition, not at explaining their origin or planning methods to eliminate them. Thus, I call nonstandard forms *inaccuracies*—not errors. Finally, the statistical programme SPSS will be used to investigate whether differences in the accuracy percentages are statistically significant, i.e. not random (as statistic test I use Pearson's chi-square that does not require Gaussian distribution and where the value of p<0,05 implies statistical significance: the values of *p* are presented in the Appendix B below). The adjective *significant* is, in this article, exclusively used in the meaning "statistically significant."

3. Definiteness in Swedish and in Finnish

The distinction between definite and indefinite referents, i.e., known and novel information, is central in every language. There are different definitions for definiteness. The most traditional one is familiarity, i.e. a referent is definite when it can be assumed to be familiar to both the speaker/writer and the hearer/reader. This criterion is relevant especially to contexts where the speech situation (e.g. *Can you close the window?*), general knowledge (e.g. *the parliament*) or the fact that the referent has been mentioned more or less directly earlier (*e.g. I met a man with two dogs and a cat. The dogs were..; I was in a concert. The orchestra was playing Mozart.*) prompt the use of the definite form, but less applicable in the contexts where the familiarity is less obvious. Another criterion close to familiarity is identifiability, where the definite form signals that the listener/reader is capable of identify the referent, i.e. match it with a real-world entity, and the definiteness of a NP confirms a probable or possible association (e.g. *the president of France*). The third criterion is uniqueness, i.e. there is only one entity satisfying the description. The uniqueness of a referent can be absolute (e.g. *the universe*), but it is most often unique in a specific context (e.g. *the pope*). (E.g. Lyons 1999: 2-8.) In plurals and mass nouns, the term inclusiveness is preferred to the uniqueness: a definite form then covers the totality of the objects or mass in the context matching the description.

Different languages mark definiteness in different ways. In the following, I will sum up the most important formal aspects of definiteness in Swedish and Finnish grammars using SAG and *Iso Suomen kielioppi* ("Big grammar of Finnish, henceforth ISK) as primary sources. The presentation follows traditional grammar in order to illuminate the L2 learners' point of view, i.e. what one is to take into account when producing NPs in Swedish. Also the categories for different NP types follow traditional grammar.

3.1. Definiteness in Swedish

In dictionaries, the paradigm of Swedish count nouns includes four forms, two in singular and two in plural, e.g., *en katt* ("a cat"), *katten* ("the cat"), *katter* ("cats"), *katterna* ("the cats"). Count nouns still can be used in a fifth way: in its base form, i.e., indefinite singular form without an indefinite article, e.g. *katt* ("cat"). (SAG2: 62, 96) This form is especially common in Swedish (Pettersson 1976).

Indefinite singular form is preceded by an indefinite article inflecting for gender, e.g., *en hund*, *ett hus* ("a dog", "a house"); whereas the definite singular form is built by adding a definite end article, e.g., *hund-en, hus-et* ("the dog", "the house"), i.e., the definite article in Swedish is a suffix (SAG2: 406, 96). If a definite NP, moreover, includes an adjective attribute, even a separate definite front article will occur: *den stor-a katt-en*, *det stor-a hus-et* ("the big cat", "the big house") (SAG2: 301). In this article, I use the terms *definite end article* and *definite front article* to distinguish between these two types. It is likewise important to note that the adjective attribute has a definiteness suffix in definite form (e.g., *stor-a*), which the indefinite NPs do not have (SAG2: 219–220). Hence, the eventual inaccuracies in the form of the adjective attributes are in this study considered as inaccuracies only in the definite NPs. Indefinite singulars with and without an adjective attribute are still distinguished, as the presence of an adjective attribute compounds the complexity of the NPs.

In plural, the indefinite forms have a plural ending (e.g., *hund-ar*, *katt-er*) with various allomorphs. As the choice of the right allomorph is a phonotactic one and lacks relevance for definiteness, I will not display them in this article. In definite plurals, the definite end article is attached to the prevailing plural ending, e.g., *hund-arn-na*, *katt-er-na* ("the dogs", "the cats"), i.e., the form has two suffixes, thus making them more complex than the other forms. (SAG 2: 64–89.)

Definiteness is often lexically expressed in Swedish. There is a myriad of pronouns used as attributes that determine the form of the noun (and that of the adjective attribute if the NP includes one; as adjective attributes are rare in my material, the examples below do not include adjective attributes). (SAG 2: 105–106.) Several of them are high-frequent in the language. Hence, it is rather common that the choice of the form of the noun depends on a purely lexical factor. In the following, I will, for short, use the umbrella term *PR/G attributes* when referring to this group of pronominal and/or genitive attributes. As many attributes with definite meaning are actually constructed with indefinite nouns, there is a rather problematic relation between form and meaning, such as:

Min/Johns hund-Ø   *denna hund-Ø*   *samma hund-Ø*
My/John's dog-INDEF   this dog-INDEF   same dog-INDEF
"my/John's dog"   "this dog"   "same dog"

Some of the definite attributes are, however, constructed with the definite form:

den här hund-en	*den där hund-en*	*hela tid-en*
this dog-DEF	that dog-DEF	whole time-DEF
"this dog"	"that dog"	"all the time"

Indefinite pronominal attributes with indefinite meanings are, by contrast, always constructed with indefinite nouns, i.e., the relation between the form and the meaning is rather logical and problem-free.

varje hund	*många hund-ar*
every dog-INDEF	many dog-PL-INDEF
"every dog"	"many dogs"

3.2. Definiteness in Finnish

The Finnish NPs have no morphologically expressed definiteness (Karlsson 2008: 7). Definiteness exists, however, in Finnish as a semantic category. The definiteness in Finnish NPs can usually be interpreted from the context, word order, or with the help of common knowledge (ISK 2004: 1360–1361). There are also cases with the context giving rise to ambiguity, when morphological (case endings) or lexical (definite and indefinite pronouns) elements can be used. (ISK 2004: 1353–1355, 1357–1358). As with many other languages, Finnish has a tendency to place rhematic, i.e., new information, to the right in a sentence, whereas the thematic elements, i.e., old information, are placed to the left (ISK 2014: 1360–1361):

Kadu-lla	*on*	*auto.*
street-DEF-on	is	car-INDEF

"There is a car on the street."

Auto	*on*	*kadu-lla.*
car-DEF	is	on street-DEF

"The car is on the street."

Lexical elements can also be used to express definiteness and to disambiguate expressions, especially in spoken Finnish. These are the definite pronouns *tämä*/*nämä* ("this/these"), *tuo/nuo* ("*that/those*"), and *se*/*ne* ("it/they") and the indefinite pronouns *eräs*, *yks(i)* ("a/an," "one"), *joku/jotkut* ("*some*"), and *sellainen* ("*such*") (ISK 2004: 1349, 1356). Standard Finnish lacks articles, but the use of these lexical elements is often close to article use. There are not, however, any linguistic elements that would have the only function of expressing definiteness (Vilkuna 1992: 177).

Finnish linguists have, since the 19th century, been aware of the fact that pronoun *se* ("it," "this") is used in a way that reminds one of the use of the definite article (Laury 1996: 170). As the native speakers never regard omission of *se* as incorrect, Finnish is still considered as a language without articles (Laury 1996: 170; Juvonen 2000: 70). It is still possible that there is a grammaticalisation process going on, as Finnish-speaking teenagers often use *yks(i)* and *se* like articles in their Finnish (Juvonen 2000). If Finnish in the future will develop an article system, it will undoubtedly influence the acquisition of definiteness in other languages by the Finnish-speaking learners.

4. Previous research

Researchers have long been interested in how learners of L2 Swedish acquire Swedish grammar. In Sweden, there have been studies on informants learning Swedish both in their everyday life and in courses (e.g., Eriksson and Wijk-Andersson 1988; Axelsson 1994) whereas Finnish studies have covered acquisition of Swedish as a foreign language in the school context, predominantly upper secondary schools (Lahtinen 1993ab, 1998; Juurakko 1996). This study is thus far the only longitudinal study with a bigger corpus with informants at an elementary level—and all of them have Finnish as L1.

Those acquiring Swedish as L1 acquire definiteness and the use of articles at an early stage (e.g., Bohnacker 1997, 2003). Previous research in Sweden and Finland has, however, shown that all learners of L2 Swedish are struggling with definiteness and the use of articles, regardless of their L1. Learners with an L1 with morphologically marked definiteness have naturally less problems than those whose L1 lacks morphological definiteness, but the formal complexity of the Swedish NPs makes definiteness a difficult category for all L2 learners of Swedish (Eriksson and Wijk-Andersson 1988; Wijk-Andersson 1994; Axelsson 1994; Sundman 1995; Heikkilä 2007; Nyqvist 2015). In short, a learner may be able to exploit his/her L1 in the choice of definiteness, but the manifold formal aspects that one has to take into account when producing actual NPs tend to be difficult for learners of L2 Swedish irrespective of the L1. According to Hyltenstam (1988: 149), even otherwise advanced L2 learners of Swedish, such as immigrants who have lived in Sweden for decades, occasionally have problems with definiteness and the use of articles.

Axelsson (1994) presents a hierarchy for the acquisition of the different NPs in L2 Swedish: formally simple phrases without articles and definite end articles (base form, indefinite plural and PR/G attributes constructed with indefinite form) are acquired first, and all informants reach a high level of correctness. The second stage encompasses NPs containing definiteness morphology (definite and indefinite singulars), where informants reach an accuracy of approximately 60%. The role of the L1s can also be seen. Spanish-speaking informants, for example, master the indefinite singular before the definite one, as it is formally identical to

the indefinite singular in Spanish. Finnish-speaking informants, instead, struggle with indefinite article but master the definite singular earlier due to the rich inflection system for NPs in Finnish. The third level encompasses all NPs including adjective attributes, i.e., the most complex NPs in Swedish, the accuracy of which is ca 30% (Axelsson 1994: 99).

Nordanger (2009) has shown that L2 learners of Norwegian, another Scandinavian language with NPs similar to those of the Swedish, struggle with related problems when their L1 lacks morphological definiteness. Russian-speaking learners of Norwegian, for example, omit definite articles more often than the English-speaking. Similar results also have been reached in studies in acquisition of definiteness in English. Chrabaszcz and Jiang (2014) have shown that advanced Spanish-speaking L2 learners are able to transfer their implicit knowledge of definite articles in Spanish into their English, whereas advanced L2 learners of English with Russian as L1 still struggle with the use of the definite articles. Both Nordanger (2009: 49) and Chrabaszcz and Jiang (2014: 371) also emphasise that idiomatic utterances concerning definiteness may be difficult for all learners of an L2, i.e., that even intralingual factors always play an essential role in acquisition of definiteness marking.

5. Cognitive Theories on L2 Grammar

My study is founded on cognitive theories that see the language as a cognitive skill in development. As with most researchers, I will operate with a distinction between interlingual and intralingual factors posing problems in acquisition (see Ellis 2008:53). Most difficulties in SLA are said to depend on intralingual factors, but there are considerable differences between studies. It is also important to remember that the problems might have several sources. Interlingual factors are also said to be rare in morphology (Ellis 2008:55–56). In the following, I discuss inter- and intralingual factors in Swedish as an L2 from the point of view of definiteness.

Since my study is longitudinal, acquisition order is also a relevant theme. I will therefore shortly refer to Processability theory (Pienemann 1998) and test whether it is applicable to definiteness in Swedish. The main stress is, nevertheless, laid on inter- and intralingual factors.

5.1. Interlingual factors

Cognitive learning theories emphasise the role of previous knowledge: new information is either assimilated in the previous knowledge or transforms it. For Finns, learning Swedish grammar means learning to deal with features unfamiliar to the L1.

When L1 and L3 do not resemble each other typologically but L2 and L3 do—which is the case of Finnish-speaking L2 Swedish learners with previous

knowledge of English—it is natural to start searching for similarities between L2 and L3 (Ringbom 2007a: 78; De Angelis 2005: 386, 391–393; Cenoz 2001: 8). In grammatical morphemes, it is the functional similarity that counts: the actual morphemes are rarely transferred themselves (Ringbom 2007a: 8). A Finnish-speaking Swedish learner might, e.g., use a definite front article instead of an end article (*det hus* instead of *huset*, "the house," see, e.g. Heikkilä 2007; Nyqvist 2015), as it usually is the correct way of expressing definite meaning in English. Finnish grammatical elements do not occur in the learners'production, either: the influence from Finnish manifests itself indirectly, particularly in omission of elements that seem irrelevant from the Finnish point of view (Jarvis and Odlin 2000: 549–550; Odlin 2003: 440; Ringbom 1992: 105). It is, still, important to remember that cross-linguistic similarities are similarities perceived by L2 learners themselves. They are subjective, not a result from linguistic analyses, and often reflect incomplete awareness (e.g. Kellerman 1977, Ringbom 2007b: 185). Hence there might be remarkable individual differences in to what extent one is capable to utilise the similarities between the languages in one's learning.

In the case of definiteness, there is a *zero relation* between Finnish and Swedish. Definiteness does exist in Finnish as semantic category, but it manifests itself rarely on the morphological level (see above). Thus, a Finnish L2 learner of Swedish cannot directly see what the languages have in common (Ringbom 2007b: 187; Vilkuna 1992.) Problems caused by the zero relation can usually be seen as omission of linguistic elements that appear redundant, such as articles. Hence, explicit instruction is usually needed (Ringbom 2007a: 7). Swedish and English, on the other hand, have a *contrast relation*: (Ringbom 2007b: 186): the semantic system behind NPs governing the choices between indefinite and definite forms is the same outside of the most idiomatic expressions, whereupon previous knowledge of English might help learners of Swedish in choosing between infinite and definite form. In the case of formal aspects, by contrast, English cannot help: English marks definiteness only by articles, whereas Swedish uses both articles and end articles (i.e. suffixes), which makes the Swedish system "asymmetric" (Philipsson 2004: 126).

5.2. Intralingual factors

DeKeyser (2005: 3) discusses characteristics of L2s, making the acquisition problematic and notes factors relating to the complexity, i.e., the inherent difficulty of grammatical structures. This complexity involves problematic features in both meaning, form and the relationship between form and meaning.

A meaning is problematic when it is new, abstract, or both (DeKeyser 2005: 4). Articles, which are a notorious example of this, are difficult to acquire in informal and formal learning (Ellis et al. 2009). Articles are, naturally, frequent in the language but, at the same time, not salient; thus, it is difficult to notice them input (Goldschneider and DeKeyser 2005: 22–24). Additionally,

their highly abstract meaning makes it difficult to draw conclusions from the input, especially if the learners' L1 lacks them (see *Interlingual factors* above): a learner might completely gloss over a grammatical feature not occurring in his/her L1, which results in omission (Jarvis and Odlin 2000; Odlin 2003; Ringbom 1992). In Swedish, this concerns both indefinite articles and definite end articles. The Finnish NPs have, certainly, a rich inflectional system, but none of the endings corresponds to the definite end article (Karlsson 2008).

DeKeyser (2005: 5–6) defines complexity of form as the number of choices involved in picking all the morphemes and allomorphs. Swedish NPs are richly inflected and definiteness of especially definite NPs involves many choices of forms: definiteness is marked with both front article and the suffixes of the adjective attribute and the noun. According to Axelsson (1994: 99), this type of NP is problematic for even advanced L2 learners of Swedish: it is possible that adult L2 learners of Swedish never master it completely, as it also is low-frequent in the input. In NPs, with both a PR/G and an adjective attribute, the learner must take into account the form of the adjective and the noun. These NP types are rare in the actual material. Definite and indefinite articles and plural suffixes also have allomorphs, the choice of which depends on grammatical gender and phonotactics, which compounds the overall complexity of the Swedish NPs.

Problems in the relationship between the form and the meaning have several undercategories. The problematic form-meaning-relation might, in Swedish, be most obvious in PR/G attributes with definite meaning: most of them are constructed with indefinite nouns, which leads to an overuse of definite forms (Axelsson 1994; Järvinen 2010; Nyqvist 2015). The role of the frequency is independent of the form-meaning-relation, but if the relation is very opaque, then even high-frequent features, such as possessive attributes in Swedish, are difficult to learn (Ellis 2002, 2003).

Redundancy signifies a meaning being simultaneously expressed with more than one morpheme, i.e., an utterance includes "unnecessary" elements (see complexity of form above). Definite NPs with adjective attributes, for example, usually include a front article, an adjective attribute with definiteness suffix and a noun in definite form, i.e., definiteness is expressed threefold. Optionality is uncommon in Swedish NPs, but there are lexicalised definite NPs with an adjective attribute where the definite front article can be omitted (SAG 3: 77), e.g., (*den*) *främsta orsaken* ("*the most important reason*"). This kind of expression does not, however, occur in my material. Opacity, i.e., "low form-meaning correlation" (DeKeyser 2005) indicates that the same form has several meanings. In Swedish, both indefinite and definite forms can have both nongeneric and generic meaning. *En katt* ("a cat") can, depending on the context, mean "one unidentified cat" (indefinite meaning, as in *I saw a cat on the street*) or "every cat" (generic meaning, as in *A cat has sharp claws*). *Katten* ("the cat"), then again, can mean "a definite cat identified in the actual context"

(e.g., *The cat is lying on the sofa*) or "the cat as a biologic art" (e.g., *The cat is a carnivore*). Generic meaning is, however, rare in the actual material.

5.3. Acquisition orders

One of the aims of this study is to compare the acquisition order of the different NP types in the actual material to the order discovered by Axelsson (1994). A comparison to Axelssons study is fruitful, as one third of her informants were Finnish-speaking L2 learners of Swedish living in Sweden. Acquisition orders are said to be similar for all learners of an L2 (Ellis and Barkhuizen 2005: 74), but, e.g., Axelsson (1994) has shown that learner's L1 might play a part. Hence, it is interesting to see whether this phenomenon occurs in the material of this study. Research on acquisition order has its roots in morpheme studies (e.g., Dulay and Burt 1973, 1974) where the morphemes were ordered with their accuracy as a starting point, i.e., high accuracy equals early acquisition (Brown 1973). This study builds on this premise.

Processability theory (henceforth PT, Pienemann 1998) is a cognitive theory about the development of grammar in SLA and presumably the best-known theory describing an acquisition order today. It has originally described development of spoken L2 German in informal settings and builds on Levelt's (1989) model about processing a language and starts with the premise that SLA means development of procedural ability following a certain order (Pienemann 1998: 4–5). According to PT, a learner cannot master the procedures of a certain level without mastering the procedures of the lower levels. The first level includes words in their base forms and utterances memorised as unanalysed wholes. Learners receiving formal instruction are likely to rapidly pass this level. On the second level, the learner is able to add relevant morphology to the word, and, on the third level, the learner becomes capable of transfer grammatical information within a phrase. The fourth level includes transferring grammatical information within a clause and on the fifth level within a sentence, i.e., between a main and a subordinate clause. (Pienemann 1998: 6–9.) When PT is applied to definiteness and the use of articles in Swedish, the base form occurs on the first level. The second level, i.e., the level with declined nouns comprises indefinite plurals and definite singulars and plurals. The third level, i.e., phrase level, comprises all NPs consisting of more than one word, i.e., indefinite singulars and all NPs with PR/G and adjective attributes.

According to Pienemann and Håkansson (1999: 417), all research they refer to in their article supports the predictions of PT, but Glahn et al. (2001: 411) have discovered that L2 learners of Swedish acquire grammatical categories with semantic basis before purely formal ones, even though they would, according to PT, occur at the same level. In this study, one of the research questions is whether PT can explain the acquisition order in the collected material.

6. Results

In this chapter, I present the most important results from my study. In performance analysis, I display the frequencies of the studied structures and compare them with the frequencies in the study texts of the compendiums that represent somewhat simplified ordinary prose. I also present differences between the different writing moments. In normative analysis, I illuminate and classify the most common inaccuracies and discuss whether they involve an inaccurate choice of definiteness or purely formal aspects.

6.1. Performance analysis

The most important result in the study is that the informants use complex language from the very beginning: no traces of a strongly simplified beginners' variety can be seen. Various types of definite and indefinite meanings and indefinite and definite forms in singular and plural, different PR/G attributes and adjective attributes occur already in S7. Hence, the first hypothesis holds to some extent. Table 2 below summarises the use of the different types of meaning with a total frequency ≥1%. The rest of the NPs are generic (0,1%), and the material also includes 24 unanalysable NPs.

Table 2. Frequencies for different meaning types in the writing moments

NP	Total	S7	A8	S8	A9	S9
Weak reference	38%	42%	22%	35%	42%	39%
Indirect deixis	27%	29%	25%	30%	26%	24%
Specific indefinite meaning	17%	17%	31%	21%	12%	14%
Direct deixis	10%	7%	10%	11%	9%	13%
Direct anaphora	5%	2%	8%	1%	6%	6%
Nonspecific indefinite meaning	2%	1%	1%	1%	2%	2%
Indirect anaphora	2%	1%	3%	0,5%	2%	1%

When the total frequencies are considered, one can see that the indefinite NPs are more common (55%) than the definite ones (43%). The most common type of indefinite meaning is so-called *weak reference* (in Swedish "svagt referentiell betydelse"), in which the class of the referent is more important than the individual entity: e.g., in *Han spelar gitarr* ("He plays the guitar"), one does not refer to any specific instrument but to any instrument called "a guitar." Hence, this type of meaning is most often expressed by NPs with base form of the noun (SAG3: 175). The second most frequent type of indefinite meaning is so called *specific indefinite meaning* (in Swedish "specifik indefinit betydelse"), in which the speaker is able to identify the referent, e.g., *Jag träffade en bekant på stan* ("I met an acquaintance in town") and the indefinite article is used (SAG3: 172).

The rarest type of indefinite meaning is *nonspecific indefinite meaning* (in Swedish "icke-specifik indefinit betydelse") in which not even the speaker is able to identify the referent, or might even deny its existence, e.g., *Jag har aldrig sett en varg* ("I have never seen a wolf") (SAG3: 170–171). The frequencies are similar in the compendiums (see Appendix A). Indefinite meanings are more common than the definite ones (57% and 42 % in Series A and 56% and 43% in Series B), and weak reference and specific indefinite meaning are the most frequent types of indefinite meaning (29% and 27% in Series A and 33% and 22% in Series B).

In definite NPs, the meaning is more often deictic than anaphoric. Most frequent is *indirect deixis* in which a referent is definite due to its unambiguous relationship to something else in the speech situation (SAG3: 159–160). Hence, this meaning is often expressed with nouns preceded by possessive attributes, e.g., *Jag träffade min bästa vän* ("*I met my best friend*"). The second most frequent type of definite meaning is *direct deixis*, in which the referent is definite, as it is a part of the communicative situation, such as *President-en talar på tv* ("*The president speaks on tv*") (SAG3: 160–161). In the compendiums, the direct deixis is more frequent than the indirect. That indirect deixis is nine percentage points more frequent in Series B than in Series A depends on the layout in the book used in the seventh grade: the pages are designed as a homepage of a teenager, and links, such as "my family," "my school," and "my hobbies" are seen on every page, i.e., indirect deixis is over-represented.

Anaphoric definiteness is, conversely, low-frequent in the narratives: *direct anaphora*, i.e., definiteness due to the fact that the same noun has already been mentioned earlier in the text, *Jag köpte en bil. Bil-en är stor*. ("*I bought a car. The car is big"*) has a frequency of 5%, whereas *indirect anaphora*, i.e., a NP is definite due to its unambiguous relationship to something else already mentioned in the text (SAG3: 165–168), e.g., *Han köpte en bil. Det var något fel på motor-n*. ("*He bought a car. There was something wrong with the motor*") is very low-frequent. Anaphoric definiteness is low-frequent also in the compendiums (direct anaphor 4% in Series A and 2% in Series B, indirect anaphor 3% in both series).

When the frequencies are observed in different writing moments, one can see how the topics affect the language produced by the informants. Weak reference is high-frequent in all writing moments but especially frequent in S7, A9, and S9, when the texts deal with hobbies (S7), music and spare time (both narratives in A9), and dream work (S9), as these themes provide obligatory occasions for this type of meaning: they make informants to use expressions such as *spela gitarr*, *se på tv* ("*watch tv*"), i.e., the nouns do not refer to a specific individual referent. Even professions in the predicative position have weak reference in Swedish e.g., *Jag vill bli jurist* ("*I want to become a lawyer*"), which explains the high frequency in S9: the informants write about their plans for the future. The relatively low frequency in A8 also depends on the theme of the texts. The

informants use weak reference to tell how they travelled to their destination, e.g., *Vi åkte tåg dit* ("*We went there by train*"), but use other meaning types after that.

The percentage of specific indefinite meaning is exceptionally high in A8 because of the theme: traveling; the informants tell about things they have seen and bought, which are unique for them but new information for the reader. The percentage in other writing moments varies from 12% to 21%, being lowest when weak reference is most frequent. This type of meaning is most often expressed by indefinite singulars and plurals in both narratives and compendiums. The percentages vary to a lesser extent in definite meaning, but indefinite anaphora is unusually frequent in A8, where the informants write about their travels, e.g., hotels become anaphorically definite. Even utterances as "*We went there by plane*", "*The flight took twelve hours*" are common. The same phenomenon occurs in A9 in the narratives about favourite bands/singers: nouns such as *singer* or *voice* are indirectly anaphoric.

Table 3 illustrates frequencies for the different NP types, apart from those with a total frequency ≥ 1% (the types with a frequency lower than 1% are mostly NPs with both a PR/G and an adjective attribute).

Table 3. Frequencies of the most common NPs

NP	Total	S7	A8	S8	A9	S9
Base form	26%	33%	17%	18%	27%	31%
Possessive attribute	24%	28%	23%	22%	23%	23%
Indefinite plural	12%	13%	11%	15%	12%	11%
Definite singular	12%	6%	16%	5%	14%	14%
Indefinite attribute	7%	6%	7%	3%	9%	4%
Indefinite singular	5%	3%	10%	6%	2%	6%
Indefinite singular + adj.	3%	2%	4%	3%	2%	3%
Genitive attribute	3%	2%	1%	6%	2%	3%
Base form + adj.	3%	0,4%	2%	7%	3%	1%
Indefinite plural + adj.	2%	0%	1%	7%	1%	2%
Definite attribute	2%	6%	4%	6%	1%	4%
Definite plural	1%	2%	1%	0%	1%	0,5%

Base form and possessive attributes dominate in the material. This is not surprising, as weak reference and indirect deixis are the most common types of meaning. Indefinite forms are again more frequent (22%, base forms not included) than definite ones (13%). Plurals are more frequent than singulars in indefinite forms. In definite forms, the situation is reverse. No less than 36% of NPs include a PR/G attribute, usually a possessive one. Adjective attributes are rare. Only 9% of NPs, mostly indefinite, include one.

The percentage of indefinite forms is 27% in both compendiums and of definite forms 26% and 21%, respectively, i.e., indefinite forms are more

frequent, but the difference is small (see Appendix A). Plurals are, again, more common than singulars in indefinite forms (in total 16% and 14% in Series A and 18% and 10% in Series B), but not in definite forms (in total 4 % and 24 % in Series A and 2% 18% in Series B, when the NPs containing and not containing adjective attributes are treated as one group): definite plurals are marginal in both narratives and compendiums (4% in Series A and 2% in Series B). The use of PR/G attributes is less common in compendiums than in the narratives: their frequency is 17% in series A and 24% in series B. This results from the lower frequency of possessive attributes in compendiums. The use of possessive attributes in narratives arises, however, from the fact that they deal with the informants' own life, i.e., possessive pronouns are not overused.

The frequencies of different NP types reflect the topics of narratives and the meaning types occurred in them. The frequency of base form is at lowest in A8, where weak reference is low-frequent. Indefinite singular is, conversely, especially common in A8, where specific indefinite meaning is very frequent, as the informants tell what they have seen and bought when travelling. Indefinite plurals are common in S8, as the informants write about things their friends like, e.g., *Han gillar filmer och serier* ("*He likes films and comics*"). The percentage of definite singulars is unusually low in S8, as definite meaning is often expressed by genitive and definite attributes, e.g., *Sofias katt* ("*Sophia's cat*") or *Vi går i samma skola/klass/hobby* ("*We are at the same school/class*," "*We have the same hobby*"). Finally, the high frequency of base form with adjective attribute in S8 depends on the fact that the informants often describe the looks of their friends, e.g., *Hon har långt hår* ("*She has long hair*").

6.2. Normative analysis

In this chapter, I present normative aspects of the narratives first from a purely quantitative perspective and then describe the most common types of inaccuracies. Up to 84% of the 4379 NPs in the narratives are correct. The overall accuracy rate is equally high in both S7 and S9 (85%). In A8, the accuracy rate (79%) is significantly lower than in S7, A9, and S9. Table 4 summarises the accuracy scores of the central NP types in the material.

Table 4. Accuracy scores for the most frequent NP types

NP	Total	S7	A8	S8	A9	S9
Base form	92%	94%	81%	91%	95%	91%
Base form + adj.	95%	100%	82%	95%	95%	100%
Indefinite singular	68%	82%	58%	80%	63%	66%
Indefinite singular + adj.	47%	53%	39%	55%	28%	64%
Indefinite plural	88%	79%	84%	89%	90%	93%
Indefinite plural + adj.	85%	-	75%	93%	76%	76%

|						
Definite singular	79%	73%	81%	77%	77%	84%
Definite singular + adj.	29%	0%	67%	0%	38%	-
Definite plural	47%	50%	50%	-	47%	60%
Possessive attribute	91%	94%	93%	94%	90%	85%
Indefinite attribute	81%	87%	85%	85%	79%	81%
Genitive attribute	64%	82%	88%	34%	84%	71%

The differences in accuracy scores between S7 and S9 are seldom significant, as informants reach a high level of accuracy in certain NPs already in S7, whereas other NP types still pose problems in S9. Hence the second hypothesis holds to some extent: the accuracy is not always highest in S9, but the most complex NPs, i.e., indefinite and definite singulars with an adjective attribute and definite plurals still pose problems in S9. Accuracy scores are higher in S9 than S7 in indefinite plurals without adjective attribute and in indefinite singulars with adjective attribute but decline from S7 to S9 in indefinite singulars without adjective attributes and inbase form. The difference between these writing moments is significant only in indefinite plurals without adjective attribute. The accuracy scores also rise from S7 to S9 in both definite singular and plural—but not significantly. In possessive attributes, only formal inaccuracies can occur, and the accuracy score declines significantly from S7 to S9 (see Figure 3).

When the total accuracy scores are compared, traces of both intra- and interlingual factors can be seen. First, the base form is significantly easier than both indefinite and definite singulars, as it lacks all grammatical morphemes. This is the case in both NPs with and without adjective attributes. The indefinite plurals are significantly easier than the singular ones in both NPs without adjective attributes and with them, as the plural nouns lack articles and definite end articles, whereas indefinite singular has indefinite article, unfamiliar for Finnish and thus a classical source of difficulty for Finnish learners. The presence of adjective attribute plays a part also in indefinite singulars: NPs without an adjective attribute are significantly easier than equivalent NPs with it (Axelsson 1994: 99).

In definite forms, the difficulty hierarchy is reverse: the definite singular containing one suffix is significantly easier than the plural containing two. Another explanation to the low accuracy score of definite plurals is their low frequency in the compendiums (4% in Series A and 2% in Series B). Definite and indefinite singulars are, instead, equally complex: they both consist of one root and one grammatical morpheme. The definite form is, however, significantly easier for the Finnish-speaking informants, because it is easier for them to add suffixes in words than to use indefinite articles. This tendency was also noticed by Axelsson (1994: 100–101).

When the accuracy scores for the most central NPs, i.e., base form, indefinite forms in singular and plural (indefinite NPs containing and not containing adjective attributes are treated here as one group, as indefinite adjective

attributes lack definiteness morphology), NPs with possessive pronouns and definite singulars and plurals are calculated on the grade level, they build a substantially similar acquisition orders in all grades. The formally simple types lacking both articles and definiteness suffixes, i.e., base forms, indefinite plurals and the constructions with possessive attributes, have the highest accuracy scores, i.e. they are acquired first. The base form is again significantly easier than all other forms, and indefinite plurals are significantly easier than definite forms and indefinite singulars. NPs with possessive attributes are significantly easier than definite and indefinite singulars and definite plurals. Definite singulars are the first acquired NPs containing definiteness morphology, and the form is significantly easier than indefinite singular and definite plurals. The last NPs to be acquired are indefinite singulars and definite plurals, i.e., the material shows similar tendencies as Axelsson's study (1994). Thus, it can be stated that the third hypothesis holds: the most complex NPs are acquired last.
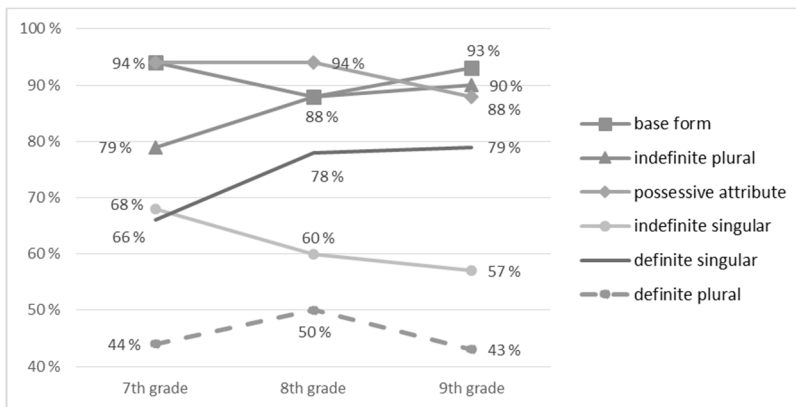

Figure 1. Accuracy scores for the most central forms in the grades 7—9.

Many aspects of this order cannot be explained by PT. Indefinite plurals lacking definiteness marking are significantly easier than definite singulars and plurals, and the difference is significant also between the definite singulars and plurals, although they, according to PT, belong to the same second level. Further, the third level of PT encompasses NP types different from each other: indefinite singulars pose considerable problems for Finnish L2 learners, whereas NPs with possessive attributes are easy for them due to their semantic similarity to corresponding Finnish utterances and their formal simplicity, i.e. lack of definiteness morphology. The accuracy score of these NPs is still higher than that of definite forms, i.e., a construction of the third level is acquired before some of those at the second level.

It is also noteworthy that the instruction order in the compendiums deviates from the acquisition order discovered in Figure 1. In the Finnish compendiums

in L2 Swedish for Finnish learners, the indefinite singular is traditionally taught before the definite singular, i.e., the learners are expected to learn a difficult form before an easier one. All plurals are, conversely, taught all at once, although the indefinite form is easy and the definite form is difficult. (Nyqvist 2013: 65–67.) This way of instruction can also explain the low accuracy scores for definite plurals.

Up to 53% of all inaccuracies in the material concern formal aspects of NPs and 40% of them the choice of definiteness, i.e., formal inaccuracies pose significantly bigger problems for the informants than the choice of definiteness, in which the informants are likely to exploit their previous knowledge of English. The inaccuracies concerning formal aspects are the most common type of inaccuracies in other writing moments than A8, where choice of definiteness has been especially problematic. Hence, the fourth hypothesis holds. The unusually high frequency of formal inaccuracies in S8 is explainable by the rich use of PR/G attributes in the material: the informants have written about their friends and therefore NPs such as *min (bästa) vän/kompis* ("my [best] friend/buddy") and NPs with *samma* ("same") are high-frequent, and the fact that an indefinite form is used in definite meaning poses problems.
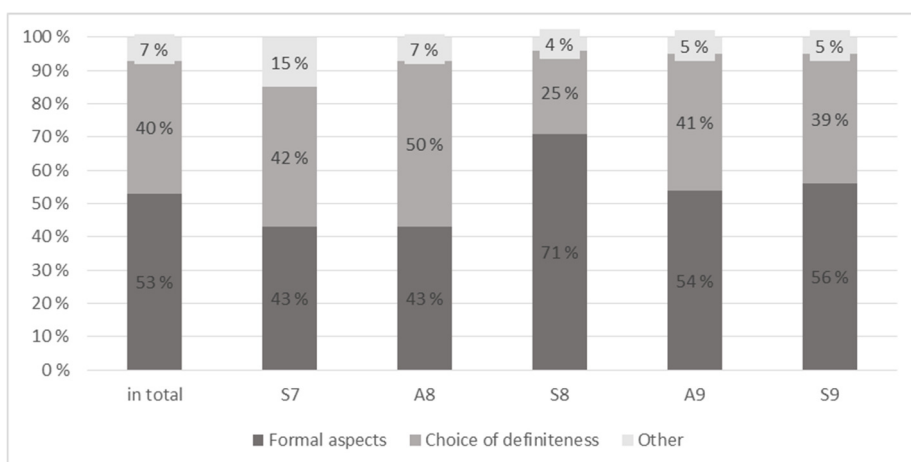
Figure 2. Percentages for different types of inaccuracies

When the separate writing moments are concerned, the formal inaccuracies are significantly more common than those concerning the choice of definiteness in S8, A9, and S9. The inaccuracies concerning the choice of definiteness are most common only in A8, but not significantly. The category "Other" stands for unanalysable forms and becomes marginal after S7.

In the following, I will describe the most common types of inaccuracies in a more qualitative manner. It is important to note that overuse of base form in obligatory occasions for indefinite singulars has been classified as a formal

inaccuracy, as the omission of an indefinite article does not affect the meaning of an NP: the base form and indefinite singular form both have indefinite meaning, whereas the overuse of base form in an obligatory occasion for a definite singular (or vice versa) also affects the meaning of an utterance. Hence, there occurs mainly definiteness inaccuracies in base forms, indefinite plurals and definite forms, whereas formal inaccuracies dominate in indefinite singulars and are the only type of inaccuracies occurring in PR/G attributes.

6.2.1. Definiteness inaccuracies

It is important to remember that the choice of definiteness is irrelevant in Swedish NPs containing PR/G attributes. As the attribute sets the form of the following noun (e.g., possessive and genitive attributes are without exception constructed with indefinite nouns), the speaker does not choose form. Hence, only 2794 of the 4379 NPs actually involve a choice of definiteness, and 11% of them contain a problem concerning the choice of correct definiteness. This kind of inaccuracies are most common in A8 as the narratives deal with traveling. There are plenty of contexts for the formulaic utterance [*åka* ("drive along," "ride", "go") + vehicle in base form], in which the informants overuse definite from. Table 5 shows the numbers of inaccuracies in the choice of definiteness (*n* in the table) and the numbers of obligatory occasions for the correct forms (*o.o.* in the table). The percentages (%) are quotients of *n*s divided by the number of obligatory occasions.

Table 5. Inaccuracies in choice of definiteness

	Base form instead of definite form			Definite form instead of indefinite form			Indefinite form instead of definite form			Definite form instead of base form			Total		
	n	o.o.	%	n	o.o.	%	n	o.o.	%	n	o.o.	%	n	o.o.	%
S7	13	55	24	19	128	15	6	55	11	7	212	3	45	395	11
A8	17	96	18	23	144	16	2	96	2	19	105	18	61	345	18
S8	8	33	24	15	210	7	0	33	0	7	153	5	30	396	8
A9	48	256	19	38	301	13	10	256	4	17	488	3	113	1045	11
S9	18	126	14	18	188	10	3	126	2	13	270	5	52	584	9
	104	566	18	113	971	12	21	566	4	63	1228	5	301	2765	11

As the table shows, the inaccuracies are usually more frequent in S7 than in S9, but the development is not linear. When the total frequencies are observed, overuse of base form in obligatory occasions for definite form (e.g. *Vi har piano i *vardagsrum* instead of *vardagsrumm-et*, "We have a piano in the living room") is significantly more common than the other types of inaccuracies and still rather common in S9. The inaccuracy is most common in the antedecentless,

i.e., direct deictic and indirect anaphoric, NPs. This is explainable by three factors. First, omission of grammatical morphemes is common at the elementary level. Another factors explaining the omission later in the material are the fact that Finnish lacks morphological definiteness and that the Finnish compendiums for learners of L2-Swedish emphasize direct anaphora by giving the rule "Use definite form when the noun has been mentioned earlier" (Nyqvist 2013), albeit definite NPs in Swedish in most cases are antedecentless (Fraurud 1988: 196-199). Direct deixis is usually dealt with only by using the example *Solen skiner* ("The sun is shining"), whereas indirect anaphora is completely neglected (Nyqvist 2013). The grammar exercises also stress direct anaphora, i.e., a type of meaning that only rarely occurs in the texts of the compendiums. The typical grammar exercises are cloze tests where indefinite and definite nouns alternate, which do not do justice for such a multifaceted phenomenon as definiteness or do not even correspond to the real language use (Nyqvist 2013: 69).

The second most common problem concerning the choice of definiteness is overuse of definite form in obligatory occasions. This is significantly more common than the two most low-frequent types and occurs almost solely in plural NPs. Overuse of definite plurals is actually so common that there is reason to believe that many informants cannot distinguish indefinite and definite plurals from one another. Some informants also use definite singular instead of indefinite plural, i.e., they seem to interpret the second form in the paradigm of a noun as plural. Moreover, there are classic cases of a referent unique for the informant but not for the reader: *Jag bor i *höghuset* ("*I live in *the block of flats*"). Overuse of indefinite form in obligatory occasions for definite form is relatively common in S7 but later marginal. Also it occurs usually in indirectly anaphoric NPs, such as: *Vår skola är stor men *en matsal är mycket liten* ("*Our school is big but *a lunch room is very small*"; the school in question has only one lunch room).

Overuse of definite singular in obligatory occasions for base form is usually rare in the narratives. It is, however, significantly more frequent in A8 than in the other writing moments. The narratives in A8 deal with travelling, and some of the informants seem to interpret the vehicles they refer to as unique from their point of view, although the vehicles usually have weak reference in Swedish. According to a survey conducted with native Swedish speakers as respondents (Nyqvist 2014: 356, 360), overuse of definite form in contexts for indefinite or base form is significantly more disturbing than the opposite situation, which the native speakers do not react especially judgmental to. This is comprehensible, as use of a definite form always implies that the listener/reader should know which referent one is talking about (see also Hellberg 1987). Hence, the overuse of definite forms leads to an unnecessary search operation in the memory of the listener/reader.

6.2.2. Formal inaccuracies

Nine percent of all NPs in the material and 53% of the inaccurate NPs involve an inaccurate form. These build a heterogeneous group, where two major problems are distinguishable: the use of nouns with PR/G attributes (46% of all formal inaccuracies) and the use of indefinite article (21% of all formal inaccuracies).

The inaccuracies with the PR/G attributes reflect the inconsistent relation between an indefinite form and a definite meaning, i.e., an intralingual factor. This occurs mainly with the frequent possessive attributes but also with genitive attributes and the definite attributes *denna* ("this") and *samma* ("the same"). The phenomenon occurs also in Axelsson's study (1994) but is especially common in my material. Figure 3 shows the percentages of obligatory occasions for PR/G attributes with overuse of definite nouns in the different writing moments.
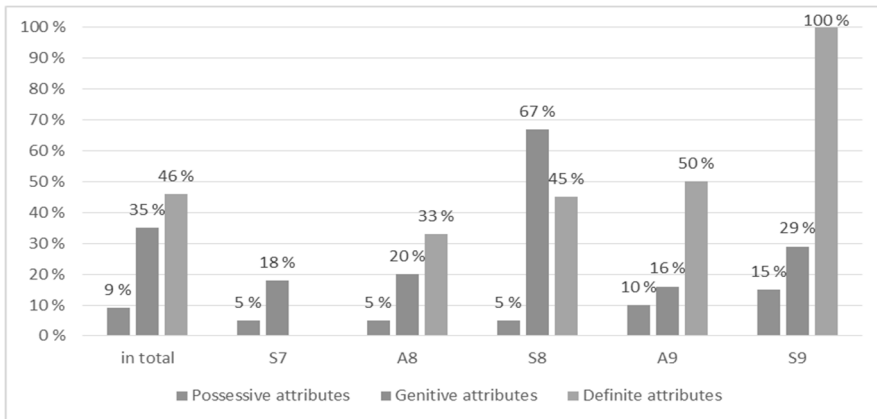
Figure 3. Overuse of definite nouns when preceded by PR/G attributes

Overuse of definite nouns is most common in the rather rare occurrences of genitive and definite attributes and a minor problem in the possessive attributes. The last-mentioned still shows an interesting progression: the frequency of the inaccurate forms is significantly higher in S9 than in the seventh and eighth grades, albeit the accuracy rate remains high. It is probable that the inaccuracy score rises as the learners become increasingly more aware of the meaning of definite NPs and jump to the conclusion that definite meaning automatically entails a definite form; the same informants have, in a grammaticality judgment test, motivated their (incorrect) choice of definite form preceded by possessive attributes by invoking to the definite meaning of the NPs (see Järvinen 2010: 162). Native speakers consider this kind inaccuracy as disturbing: it does not endanger the comprehensibility of an utterance but gives a negligent impression (Nyqvist 2014: 360). The opposite, i.e., overuse of indefinite nouns with definite PR/G attributes constructed with definite noun (e.g., *den här *bok* instead of *den här boken*, "*this book*"), is rare.

As the indefinite article has abstract meaning and is difficult to perceive in the input (DeKeyser 2005: 5; DeKeyser and Goldschneider 2005: 22–25), and, furthermore, is unfamiliar to standard Finnish, it has often been reported to pose problems for Finnish-speaking L2-Swedish learners (Axelsson 1994; cf. Eriksson and Wijk-Andersson 1988). The problem is most common when the NP also contains an adjective attribute: as many as 46% of indefinite singulars with an adjective attribute lack indefinite article—in the NPs without an adjective attribute the rate is 17%. The difference between the accuracy of NPs with or without an adjective attribute is, moreover, significant in overall rates and in all other writing moments than S9, which shows that the adjective attributes increase the complexity of the NPs. However, the inaccuracy rate in NPs with an adjective attribute decreases significantly from A9 to S9, which suggests progress, but omission is still common at the end of the study. One might be able to exploit one's previous knowledge of English, but indefinite articles are likely to pose problems also in English (e.g., DeKeyser 2005). Native speakers, however, are indulgent vis-à-vis omission of indefinite article, probably as both indefinite singular and base form have an indefinite meaning (Nyqvist 2014: 360).
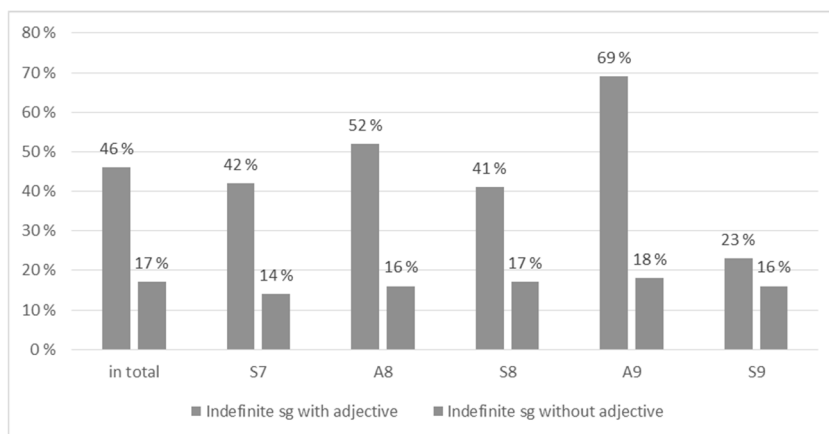

Figure 4. Omission of indefinite article

The overuse of indefinite article in contexts such as *Jag spelar *en gitarr* ("*I play the guitar*") or *Kanske blir jag *en jurist* ("*I might become a lawyer*"), where the indefinite article is used as per the English construction, is sporadic, but illuminates for its part problems L2 learners of Swedish struggle with when using articles.

Other problems regarding choice of the right form concerns especially low-frequent complex NPs, such as definite NPs with adjective attributes and NPs with both PR/G and adjective attributes. In these cases, one NP typically includes several problems, e.g., omission of definiteness suffix of the adjective

attribute, omission of definite front article in definite NPs with an adjective attribute, and the form of a noun in NPs with PR/G attributes (cf. Axelsson 1994: 99).

7. Discussion

The central result of the study is that the informants use complex language already in S7. It is also clear that the topics of the narratives affect the frequencies of different definiteness meanings and NP types. Inaccurate NPs are as common in S7 as in S9, the accuracy scores naturally rise in certain NPs but decline in others. Certain NP types (e.g., base form and possessive attributes) are mastered already in S7, whereas others, e.g., indefinite singulars with adjective attributes are still posing problems at the end of secondary school. In short, definiteness in Swedish is such a manifold phenomenon, including both simple and complex constructions, that three years is not enough to master them all.

Definiteness involves two different aspects in Swedish. First, one is to choose between indefinite and definite meaning and, second, to build a NP according to the complex morphological rules of Swedish. Hence, it has been relevant to distinguish between inaccuracies in the choice of definiteness, i.e., when an accurate NP is used in an inaccurate context and inaccuracies in formal aspects, where the form of a NP is inaccurate in itself. The majority of inaccuracies concern formal aspects. The fact that inaccuracies in the choice of definiteness are fewer might be explainable by the fact that the informants have previous knowledge of English: they are used to the choice on their English lessons. It is, still, important to remember that the choice might pose problems to the learners also in English.

The common nominator of all dominant types of inaccuracies is simplification. In the case of choice of definiteness, the informants use, above all, base form instead of definite singulars and indefinite plurals instead of definite plurals, which depends on interlingual factors. In formal aspects, the omission of indefinite articles depends on both the abstract meaning and low saliency and the learner's tendency to omit grammatical elements that seem redundant from the point of view of their L1. In the case of PR/G attributes constructed with indefinite nouns despite their definite meaning, the overuse of definite nouns results from a simplification of the complex relation between form and meaning: that the PR/G attributes determine the form of the noun is a typical trait of Swedish, i.e. an intralingual factor. Hence it can again be stated that intralingual factors are strongly present in many central types of inaccuracies, and hence my study does not differ from previous studies, but that the interlingual factors also play a central part for Finnish learners. These two types of factors are also, in some cases, closely intertwined: the fact that the L1 of a learner lacks indefinite article is likely to make its meaning even more abstract for the learner.

Even the compendiums can explain problems in the acquisition. Overuse of base form in obligatory occasions of definite singulars is most common when the definite form is antedecentless. Direct anaphoric definite NPs are actually uncommon in the texts of the compendiums, but practically the only type of definite NPs that is explicitly dealt with in the grammar pages. The other types of definite meaning expressed with definite forms, i.e., direct deixis and indirect anaphor, occur naturally in the texts of the compendiums, but it is out of proportion to expect that learners at a rather elementary level would be able to discover them without explicit instruction and grammar exercises.

The acquisition order discovered in the study follows its internal logic rather similarly to that in Axelsson's (1994) study: the NPs without definiteness morphology are acquired before the ones with an ending. The last ones to be acquired are indefinite singulars and definite plurals that are difficult for the informants due to both inter- and intralingual factors. This order deviates, however, from the order proposed in the PT, as NP types on the same level in the theory often have significant differences in the accuracy rates. Hence, it seems evident that the PT cannot alone explain the acquisition order, but also the complexity of a NP and the distance from the L1 may play an important part and should be taken into account.

Finally, the acquisition order discovered in this study also differs essentially from the instruction order in the compendiums. Indefinite singulars are taught before definite singulars, i.e., a difficult form is dealt with before an easier one. This can naturally be justified by the fact that the difficult forms need to be taught early to maximise time for rehearsal, but this order might also be counterproductive for the learners' motivation.

References

Axelsson, M. 1994. *NP development in Swedish as a second language. A study of adult learners acquiring definiteness and the semantics and morphology of adjectives*. Stockholm: Stockholm University Centre for Research and Bilingualism.

Basic Education Act 628/1998.

Bohnacker, U. 1997. Determiner Phrases and the Debate on Functional Categories in Early Child Language. Language Acquisition 6(1). 49–90.

Bohnacker, U. 2003. Nominal Phrases. In G. Håkansson, G. Josefsson and C. Platzack (eds), *Acquisition of Swedish grammar,* 195–259. Amsterdam: John Benjamins Cop.

Brown, R. 1973. *A First Language: The Early Stages*. Cambridge: MA: Harvard University Press.

Cenoz, J. 2001. The Effect of Linguistic Distance, L2 Status and Age on Cross-linguistic Influence in Third Language Acquisition. In J. Cenoz (ed.), *Cross-linguistic influence in third language acquisition,* 8–20. Clevedon: Multilingual Matters.

Chrabaszcz, A. and N. Jiang. 2014. The role of the native language in the use of the English nongeneric definite article by L2 learners: A cross-linguistic comparison. Second language Research 30. 351–379.

De Angelis, G. 2005. Interlanguage Transfer of Function Words. Language Learning 55. 379–414.

DeKeyser, R. 2005. What Makes Learning Second Language Grammar Difficult? A Review of Issues. Language Learning 55. 1–25.

Dulay, H. and M. Burt. 1973. Should we teach children syntax? Language Learning 23. 245–258.

Dulay, H. and M. Burt. 1974. Natural sequences in child second language acquisition. Language Learning 24. 37–53.

Ellis, NC. 2002. Frequency effects in language processing: A Review with implications for theories of implicit and explicit language acquisition. Studies in Second Language Acquisition 24. 143–188.

Ellis, NC. 2003. Constructions, Chunking, and Connectionism: The Emergence of Second Language Structure. In C. J. Doughty and M. H. Long (eds.), *The Handbook of Second Language Acquisition,* 63–103. Blackwell Publishing.

Ellis, NC. 2005. At the interface: Dynamic interactions of explicit and implicit language knowledge. Studies in Second Language Acquisition 27. 305–352.

Ellis, R. 2008. *The Study of Second Language Acquisition. Second edition*. Oxford: Oxford University Press.

Ellis, R. 2009: Investigating Learning Difficulty in Terms of Implicit and Explicit Knowledge. In R. Ellis, S. Loewen, C. Elder, J. Philp, H. Reinder and R. Erlam (eds.), *Implicit and Explicit Knowledge in Second Language Learning, Testing and Teaching,* 143–166. Bristol: Multilingual Matters.

Ellis, R. and G. Barkhuizen. 2005. *Analysing Learner Language*. Oxford: Oxford University Press.

Eriksson, A. and E. Wijk-Andersson. 1988. *Swedish Nouns and Articles in German and Polish Students' Swedish Writing*. FUMS Rapport 141: Uppsala universitet.

FNBE 2004. = Finnish National Board of Education: Perusopetuksen opetussuunnitelman perusteet 2004. Available from: http://www.oph.fi/svenska/ops/grundskola/LPgrundl.pdf. [Accessed:] 19th August 2015.

FNBE 2014. = Finnish National Board of Education: Koulutuksen tilastollinen vuosikirja 2014. Helsinki: Finnish National Board of Education.

Fraurud, K. 1988. Hierarchical Relations between Discourse Referents and the Interpretation of Antedecentless Definite Noun Phrases. In V. Rosén (ed.), *Papers from the Tenth Scandinavian Conference of Linguistics,* 196–210. Bergen: University of Bergen.

General Upper Secondary Schools Act 629/1998.

Glahn E., G. Håkansson, B. Hammarberg, A. Holmen, K. Lund and A. Hvenekilde. 2001. Processability in Scandinavian Second Language Acquisition. Studies in Second Language Acquisition 23. 389–416.

Goldschneider J. and R. DeKeyser. 2005. Explaining the "natural" order of L2 morpheme acquisition in English: A meta-analysis of multiple determinants. Language Learning 51. 1–50.

Government Decree on University Degrees 794/2004.

Hammarberg, B. 2007. Nyare utvecklingar inom forskningen om svenska som andraspråk. Nordand. Nordisk tidsskrift for andrespråksforskning 1/2007. Bergen: Fagbokforlaget. 43–61.

Haspelmath, M. 1998. How young is Standard Average European? Language Sciences 20. 271–287.

Heikkilä, T-L. 2007. Engelskans inflytande i nominalfrasen i finskspråkiga kadetters svenska. An unpublished licentiate's thesis. Helsinki: University of Helsinki.

Hellberg, S. 1987. Bestämd form: du vet vilken jag menar. In U. Teleman (ed.), *Grammatik på villovägar. Skrifter utgivna av Svenska språknämnden 73,* 33–38. Stockholm: Almqvist and Wicksell.

Hyltenstam. K. 1988. Att tala svenska som en infödd – eller nästan. In K. Hyltenstam and I. Lindberg (eds.), *Första symposiet om svenska som andraspråk. Volym 1: Föredrag om språk, språkinlärning och interaction,* 138–156. Stockholm: Stockholm University.

ISK = Hakulinen A, M. Vilkuna, R. Korhonen, V. Koivisto, TR. Heinonen and and I. Alho. 2004: Iso suomen kielioppi. Helsinki: Society of the Finnish Literature.

Jarvis, S. and T. Odlin. 2000. Morphological type, spatial reference and language transfer. Studies in second Language Acquisition 22. 535–556.

Juurakko, T. 1996. Prepositioner i finskspråkiga gymnasisters inlärarsvenska. Jyväskylä: University of Jyväskylä.

Juvonen, P. 2000. Om bestämdhetsmarkering i ett tvärspråkligt perspektiv – har finskan en bestämd artikel? In K. Fraurud, P. Juvonen and M. Sundman (eds.), *Denna – den här – den där. Om demonstrativer i tvärspråklig belysning. En minnesskrift till Elsie Wijk-Andersson.* ASLA Information 26(2). 57–92.

Järvinen, E-L. 2010: Val av species och bestämdhetsform i ett test för finska grundskoleelever. In C. Falk, A. Nord, A. and R. Palm (eds.), *Svenskans beskrivning 30. Förhandlingar vid Trettionde sammankomsten för svenskans beskrivning, Stockholm den 10 och 11 oktober 2008,* 154–163. Stockholm: Institutionen för nordiska språk, Stockholm University.

Karlsson, F. 2008. *Finnish: An Essential Grammar*. London: Routledge. 2nd edition.

Karppinen, M. and R. Sarkkinen. 1995. *Ruotsin kielen oppimistuloksia peruskoulun 9. luokan valtakunnallisessa kokeessa.* Helsinki: Finnish National Board of Education: 23/1995.

Kellerman, E 1977. Towards a characterization of the strategy of transfer in second language learning. Interlanguage studies Bulletin, Utrecht 2. 58–145.

Lahtinen, S. 1993a. Om nominalfrasens struktur i finska gymnasisters inlärarsvenska och deras behärskning av typerna" den gula bilen" och "en gul bil". In A. Golden and A. Hvenekilde (eds.), *Rapport fra det andre forskersymposiet om Nordens språk som andraspråk,* 181–190. Oslo: Oslo universitet, avdelning for norsk som andrespråk. Institutt for lingvistiske fag.

Lahtinen. S. 1993b. Om nominalfrasens struktur och feltyperna en (gul) bilen och det gula bilen i finska gymnasisters inlärarsvenska. In V. Muittari and M. Rahkonen (eds.), *Svenskan i Finland 2,* 85–98. Jyväskylä: University of Jyväskylä.

Lahtinen, S. 1998. *Genuskongruens och genus i finska gymnasisters inlärarsvenska*. Jyväskylä: Jyväskylä universitet.

Laury, R. 1996. Sen kategoriasta – onko suomessa jo artikkeli? Virittäjä 2. 162–180.

Levelt, WJM. 1989. *Speaking. From Intention to Articulation*. Cambridge, MA: The MIT Press.

Lyons, C. 1999. *Definiteness*. Cambridge: Cambridge University Press.

Nordanger, M. 2009. Keiserens nye klær? Lingvistisk og konseptuell transfer i markeringen av grammatikalisert definitt referanse i russiskspråklige og engelskspråkliges norske mellomspråk – en studie basert på ASK. Bergen: University of Bergen.

Nyqvist, E-L. 2013. *Species och artikelbruk i finskspråkiga grundskoleelevers inlärarsvenska. En longitudinell undersökning i årskurserna 7–9*. University of Turku.

Nyqvist, E-L. 2014. Hurdana species- och artikelfel bör motarbetas? In J. Lindström, S. Henricson, A. Huhtala, P. Kukkonen, H. Lehti-Eklund and C. Lindholm, C (eds.), *Svenskans Beskrivning 33*. Nordica Helsingiensia 37. 353–362.

Nyqvist, E-L. 2015. Species och artikelbruk hos vuxna svenskinlärare. NordAnd 2/2015. 75–101.

Odlin, T. 2003. Transfer. In C. J. Doughty and M. H. Long (eds.), *The Handbook of Second Language Acquisition,* 436–486. Blackwell Publishing.

Pettersson, T. 1976. Bestämda och obestämda former. In E. Gårding (ed.), *Kontrastiv fonetik och syntax med svenska i centrum*, 119–142. Lund: Liber Läromedel.

Philipsson, A. 2004. Svenskans morfologi och syntax i ett andraspråksperspektiv. In K. Hyltenstam and I. Lindberg (eds.), *Svenska som andraspråk – i forskning, undervisning och samhälle*, 117–151. Lund: Studentlitteratur.

Pienemann, M. 1998. *Language Processing and Second Language Development: Processability theory*. Amsterdam: John Benjamins.

Pienemann, M. and G. Håkansson. 1999. A unified approach towards the development of Swedish as L2: a processability account. Studies in Second Language Acquisition 21. 383–420.

Ringbom, H. 1992. On L1 Transfer in L2 Comprehension and L2 Production. Language Learning 42. 85–112.

Ringbom, H. 2007a. *Cross-linguistic similarity in Foreign Language Learning*. Clevedon: Multilingual Matters.

Ringbom, H. 2007b. Actual, perceived and assumed cross-linguistic similarities in foreign language learning. In O-P. Salo, T. Nikula and P. Kalaja (eds.), *Kieli oppimisessa – Language in Learning. AFinLa's Yearbook 2007*, 183–196. Jyväskylä: Jyväskylä University Press.

SAG 2 = Telemann, U., S. Hellberg and E. Andersson. 1999. Svenska Akademis Grammatik. Del 2: Ord. Stockholm: Nordstedts Ordbok.

SAG 3 = Telemann, U., S. Hellberg and E. Andersson. 1999. Svenska Akademis Grammatik. Del 3: Fraser. Stockholm: Nordstedts Ordbok.

Sundman, M. 1995. Species och artikelbruk hos avancerade inlärare av svenska. In M. Kalin and S. Latomaa (eds.), *Nordens språk som andraspråk 3*, 220–229. Jyväskylä: Language Centre for Finnish Universities.

Statistics Finland 2014.
Available from: http://www.stat.fi/til/vaerak/2013/vaerak_2013_2014-03-21_tau_001_en.html [Accessed:] 31st of August 2015.

Tuokko, E. 2002. Perusopetuksen päättövaiheen ruotsin kielen oppimistulosten kansallinen arviointi 2001. Oppimistulosten arviointi 3/2002. Helsinki: Finnish National Board of Education.

Tuokko, E. 2009. Miten ruotsia osataan peruskoulussa? Perusopetuksen päättövaiheen ruotsin kielen B-oppimäärän oppimistulosten kansallinen arviointi 2008. Helsinki: Finnish National Board of Education.

Wijk-Andersson, E. 1994. Bestämdhetsmarkering och bestämdhetsgivning. In A. Holmberg and K. Larsson (eds.), *Svenskans beskrivning 20*, 380–387. Lund: Lund University Press.

Vilkuna, M. 1992. *Referenssi ja määräisyys suomenkielisten tekstien tulkinnassa*. Helsinki: Society of the Finnish Literature.

Appendix A: Frequencies for the compendiums

Frequencies for different types of meaning in the compendiums

NP	Series A	Series B
Weak reference	29%	33%
Indirect deixis	10%	19%
Specific indefinite meaning	27%	22%
Direct deixis	26%	19%
Direct anaphora	4%	2%
Nonspecific indefinite meaning	1%	1%
Indirect anaphora	3%	3%
Generic meaning	0,2%	1%

Frequencies for the most common forms in the compendiums

NP	Series A	Series B
Base form	23%	24%
Possessive attribute	7%	15%
Indefinite plural	14%	16%
Definite singular	23%	18%

Indefinite attribute	5%	3%
Indefinite singular	8%	6%
Indefinite singular + adj.	4%	4%
Genitive attribute	2%	4%
Base form + adj.	2%	1%
Indefinite plural + adj.	2%	2%
Definite attribute	0,4%	1%
Definite plural	4%	2%

Appendix B: Statistical significances in the normative analyses

The tables below contain statistical significances from the normative analyses, i.e., values for *p* (Pearson's chi-square, limit *p*≤0,005) and the percentage of cells with expected count less than 5; the result cannot be generalised outside the actual population, when the percentage is < 20%. In the tables, e.g., "base form versus indefinite sg" stands for two NP types compared to one another, whereas, e.g., "S7 versus A8" stands for a comparison of two different writing moments. The first NPs and writing moments is the one with a higher accuracy score. When different types of inaccuracies are compared, the one with fewer inaccuracies comes first.

Percentages of inaccurate NPs in different writing moments

	p	**%**
S7 vs A8	0,005	0%
A9 vs A8	0,001	0%
S9 vs A8	0,004	0%
indefinite plurals S9 vs S7	0,005	0%

Total accuracy scores in different NPs

NPs	**p**	**%**
base form vs indefinite singular	0,000	0%
base form vs definite singular	0,000	0%
base form + adjective attribute vs indefinite singular + adjective attribute	0,000	0%
base form + adjective attribute. vs definite singular + adjective attribute	0,000	25%
indefinite plural vs indefinite singular	0,000	0%
indefinite plural + adjective vs indefinite singular + adjective attribute	0,000	0%

NPs	p	%
indefinite singular vs indefinite singular + adjective attribute	0,000	0%
definite singular vs definite plural	0,000	0%
definite singular vs indefinite singular	0,001	0%

NPs in Figure 1

NPs	p	%
base form vs indefinite plural	0,033	0%
base form vs possessive attribute	0,002	0%
base form vs definite singular	0,000	0%
base form vs indefinite singular	0,000	0%
base form vs definite plural	0,000	25%
indefinite plural vs definite singular	0,000	0%
indefinite plural vs indefinite singular	0,000	0%
indefinite plural vs definite plural	0,000	25%
possessive attribute vs definite singular	0,000	0%
possessive attribute vs indefinite singular	0,000	0%
possessive attribute vs definite plural	0,000	25%
definite singular vs indefinite singular	0,000	0%
definite singular vs definite plural	0,000	25%

Percentages of the different types of inaccuracies

Type of inaccuracy	Writing moment	p	%
choice of definiteness vs choice of form	Total	0,000	0%
choice of definiteness vs choice of form	S8	0,000	0%
choice of definiteness vs choice of form	A9	0,001	0%
choice of definiteness vs choice of form	S9	0,005	0%

Inaccuracies in the choice of definiteness

Choice of definiteness	Writing moment	p	%
definite instead of indefinite vs base form instead of definite	Total	0,000	0%
indefinite form instead of definite vs base form instead of definite	Total	0,000	0%
definite form instead of base form vs base form instead of definite	Total	0,000	0%
indefinite form instead of definite vs definite instead of indefinite	Total	0,000	0%

definite form instead of base form vs definite instead of indefinite	Total	0,000	0%

Overuse of definite nouns with PR/G attributes

NP	Writing moment	p	%
possessive attribute	S7 vs S9	0,002	0%
possessive attribute	A8 vs S9	0,010	0%
possessive attribute	S8 vs S9	0,003	0%

Omission of indefinite article

Omission of indefinite article	Writing moment	p	%
- adjective attribute vs + adjective attribute	Total	0,000	0%
- adjective attribute vs + adjective attribute	S7	0,040	0%
- adjective attribute vs + adjective attribute	A8	0,001	0%
- adjective attribute vs + adjective attribute	S8	0,040	0%
- adjective attribute vs + adjective attribute	A9	0,000	0%
+ adjective attribute	S9 vs A9	0,001	0%