

# Preposition use in oral and written learner language

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## Abstract

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This paper concerns preposition use in oral language produced by advanced Norwegian learners of English, using primary data from an oral learner corpus (LINDSEI-NO). We investigate the frequency of inappropriate preposition use in approximately 13 hours of transcribed informal interviews, as well as the possible extent to which L1 transfer may play a role in production. The contextually inappropriate prepositions were categorized in terms of factors that may influence preposition use, with particular focus on the congruence between L1 and L2 with respect to syntactic structure and basic meaning. These results about spoken preposition use are then contrasted with results from a corresponding investigation into preposition use in a written learner corpus (NICLE), allowing for comparison of preposition usage across modes.

**Keywords:** prepositions, oral language, learner English, spoken learner corpus, L1 influence, spoken vs. written

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## **1. Prepositions are said to be a problem – but are they?**

This paper investigates preposition use in English as a second language (L2), an area generally acknowledged as difficult – “a traditional and recurring nightmare for all learners of English” (Littlemore and Low 2006, 285). In determining the appropriate preposition, learners face multiple challenges, including the polysemous nature of English prepositions as well as a lack of complete correspondence between English preposition use and preposition use in the learner’s first language (L1) – assuming that L1 even has prepositions. Different languages may encode the same relationships by grammatical structures without resorting to prepositions at all; for example, Estonian uses case endings while Korean uses combinations of special nouns and verb, thereby providing a further source of possible difficulty for speakers of these languages (see Tyler and Evans 2003, 234). Potential problems for any learner are compounded by the manner in which prepositions may be presented in grammar books, where their various meaning extensions are frequently portrayed as arbitrary, leaving learners with few options other than to memorize prepositions “narrow context by narrow context” (Lindstromberg 1998, 227) and/or develop good dictionary-using habits (see e.g. Parrott 2010).

This paper adds empirical evidence as part of a wider investigation into the use of prepositions in learner English. The focus here is on the spoken English of Norwegian L1 speakers. Although such learners may have an advantage when it comes to English preposition use because both Norwegian and English are Germanic languages encoding spatial relationships in much the same ways, Norwegians are nevertheless said to have challenges in this area (see e.g. Austad, Andersen, and Peel 1999, 97-110; Davidsen-Nielsen and Harder 2001, 33; Lysvåg and Johansson, 1995, 117-135). While Nacey (2013) examined written learner texts to uncover the real magnitude of the challenge that preposition use presents, we have here investigated oral language produced by advanced learners. Three related research questions are addressed:

- How often do these learners produce an inappropriate preposition?
- Is there a correlation between inappropriate use and L1 influence?, and
- Is there a difference between Norwegian learners’ preposition use in oral and written language?

The corpus material used in the investigation is first presented in Section 2, along with our methodological approach: All prepositions in the spoken data were categorized for contextual appropriateness, while those prepositions judged to be inappropriate were further classified according to syntactic congruence between the learners’ first language (L1) and second language (L2), and for possible L1 transfer. Section 3 continues with a general overview of preposition use, followed by subsections relating our findings with respect to each of our three research questions. Section 4 closes with concluding remarks.

## **2. Material and methods**

### **2.1 Corpus data: The Norwegian LINDSEI subcorpus (LINDSEI-NO)**

This investigation is corpus-based, in the sense that our primary data is retrieved from the Norwegian component in the planned second edition of the Louvain International Database of Spoken English Interlanguage, LINDSEI (Gilquin, Cock, and Granger 2010). The LINDSEI corpus is designed to facilitate investigation of the spoken English of learners with different

L1s. The LINDSEI subcorpora each contain fifty 15-minute long interviews of English language learners, adhering to the same tri-fold structure: a conversation about one of three set topics, then a period of informal free conversation, and finally a picture description task. This corpus thus allows for investigations of a particular variety of spoken learner English in isolation (e.g. French L2 English), comparisons across learner varieties (e.g. French L2 English vs. German L2 English), or – taken together with additional, comparable corpora – comparisons between one or more learner varieties and one or more reference language varieties (e.g. French L2 English vs. British L1 English) (Granger 2013).

Our investigation is limited to the preposition use of only a single group of learners, those with Norwegian as their L1. All 50 informants were recruited from various 60 ECTS year-long university courses in English from 2010 to 2012 at Hedmark University College, where the compilation of the Norwegian subcorpus ('LINDSEI-NO') is nearing completion.<sup>1</sup> Their English proficiency level may generally be rated as high-intermediate to advanced. The 50 interviews providing the primary data for this paper comprise almost 13 hours of total speaking time. The recordings have been transcribed following LINDSEI guidelines,<sup>2</sup> with the learner turns amounting to 83,313 words. This figure excludes non-lexical fillers and backchannels, and indecipherable text, but includes both truncated and repeated words.

## 2.2 Extraction of the data

A list of 92 English prepositions was first compiled from a variety of sources, including grammar books and school textbooks. An automatic search for these prepositions in the learner turns of the LINDSEI-NO transcriptions was conducted, thereby narrowing the list to 50 prepositions that were uttered at least once by one or more learners during the course of the interviews. Concordance lines for each such occurrence were then transferred to a database for analysis,<sup>3</sup> where each entry was first coded for appropriateness (see Section 2.3) and then any inappropriate prepositions were subsequently categorized for syntactic congruence as a means of identifying possible L1 transfer (see Section 2.4). The codings were carried out by one of two researchers – the authors, one whose L1 is Norwegian and the other whose L1 is English. Unclear cases were resolved through discussion between the researchers. Any doubts raised concerning the accuracy of the transcriptions themselves were resolved through consultation of the sound files.

Excluded from consideration in this study are all prepositions in cited movie titles, book titles etc., since they do not necessarily provide evidence about the learners' preposition use per se. Moreover, prepositions occurring in polywords have been excluded, polywords being short, fixed expressions such as *of course* and *on top of* that are perceived as single lexical units even though they consist of two or more orthographic words (Becker 1975; Nattinger and DeCarrico 1992, 38-39). In such expressions, the individual components have "lost their semantic identity" (Sinclair 1991, 110-111), and should therefore not be separated when it comes to semantic analysis. We have also chosen to distinguish between particles in phrasal verbs and prepositions in prepositional verbs, illustrated in (1) and (2) respectively, by

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<sup>1</sup> The LINDSEI-NO subcorpus is scheduled for completion in late 2014, although the release date for the second version of the entire LINDSEI corpus has not yet been finalized (as of this writing in September 2014).

<sup>2</sup> The guidelines are found here: <http://www.uclouvain.be/en-307849.html>.

<sup>3</sup> The 'WordSmith Tools' software package (Scott 2013) was employed to create lists of concordance lines for each preposition, while our database was created using 'FileMaker Pro 12 Advanced'.

excluding the former but including the latter in this study. Differentiation was carried out following Quirk et al.'s criteria (1985, 1156-1157 and 1167), the most helpful criterion with respect to transitive constructions being the inability of the particle to be moved to a position after the linked noun phrase.

(1) they're all *handed in* at roughly the same time (NO026)<sup>4</sup>

(2) I think I'll *talk about* Germany (NO047)

Finally, the dividing line between prepositions and some other word classes (especially conjunctions) is sometimes blurry, something particularly true of the lexemes *as*, *like*, and *than* (Quirk et al. 1985, 658-661). For this reason, all occurrences of these three words have been discarded from the data. All told, these exclusions account for 1,264 occurrences: 37 titles, 385 phrasal verbs, 477 polywords, 67 cases of *as*, 244 cases of *like*, and 54 cases of *than*.

### 2.3 Categorization for (in)appropriateness

The prepositions in the material were categorized for 'appropriateness', based on whether their contextual senses and/or collocations are lexicalized in contemporary dictionaries of English. Here we relied primarily upon corpus-based dictionaries intended for advanced learners of English, such as the online Oxford Advanced Learner's Dictionary (OALD).<sup>5</sup> Because such dictionaries are intended to help users to both decode and encode words, they include carefully selected illustrative sentences of the word in context. These sentences are often the most effective means of providing information in a user-friendly way, especially about very frequent words such as prepositions. They serve to clarify points regarding common collocations, syntax, variety of usage, and meaning (Landau 2001, 208; van der Meer 1997, 566), thereby functioning as a complement to reliance on informed intuition.

We deliberately employ the term 'appropriateness' rather than 'error' in recognition of the variable preposition use that may occur in different varieties of world Englishes, as well as acknowledgement of the ongoing discussions over English as a lingua franca, where successful communication is prioritized more than adherence to the rules of any particular L1 English variety. English language teaching in Norway, however, has traditionally been characterized by a native speaker bias, with the target being British English or (less frequently) American English (Rindal 2010, 241-242). It thus makes sense to use one or both of these varieties as the benchmark by which to measure the LINDSEI-NO learners' preposition production. For this reason, we define appropriateness with respect to dictionary classification: preposition use is deemed appropriate if the contextual meaning for the preposition in question matches one of its sense entries in standard dictionaries of English.

In this way, prepositions such as both occurrences of *in* in (3) were classified as 'appropriate', a usage corresponding to the first OALD entry for the preposition. By contrast, the use of *in* in (4) was classified as 'inappropriate' because there is no corresponding entry

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<sup>4</sup> In these and all other examples, the preposition in focus is marked with bold italics, and the immediate relevant co-text with italics. The tags following the examples identify the learners' L1 (NO = Norwegian) and include a number indicating the individual learner.

<sup>5</sup> The OALD website is located at <http://oald8.oxfordlearnersdictionaries.com/>.

for the preposition with this particular collocation in the dictionary (although there is for *at*, the conventionally appropriate preposition and presumably the target item).

(3) I got some relatives (em) *in* *New Jersey* and *in* *Salt Lake City* as well (NO046)

(4) we're going to Tallinn *in* *the end of March* (NO017)

While these two decisions tallied with the intuition of both researchers, such was not always the case. In any clashes between our intuitive understanding and dictionary evidence of appropriateness, we allowed the latter to trump the former.

Appropriateness, however, was sometimes impossible to determine due to the online processing factor inherent in the nature of spoken language in informal conversations. Specifically, we were unable to determine the appropriateness of 148 occurrences of prepositions where the speaker suddenly broke off and either restructured the utterance or began to express a new (usually related) thought, or where the learner's utterance was interrupted by the interviewer as part of the natural flow of conversation. In (5), for example, it is impossible to definitively categorize *after* for appropriateness, as the learner never completes the prepositional phrase (the '=' symbol indicates a truncated word). Such usages have therefore been coded as 'Don't Know' (DK).

(5) so I went there and: . I really liked it so *after* *the*= and it was only for three months a half semester (NO014)<sup>6</sup>

Finally, we also observed inappropriate use of a particular phrase that could be attributed not to the preposition use per se, but to other causes. As an example, consider the italicized prepositional phrase in (6), where unidiomatic language results from selection of the definite article ('in *the* way') rather than the indefinite article ('in *a* way').

(6) I'm ver= more (eh) much more f= fascinated of e= England *in the* way and but it's so vast and so big for me that it's (eh) very many impressions (NO022)

In all, 67 such occurrences have been categorized as 'Other', marking that there is some incongruous usage but holding these cases distinct from those inappropriate specifically as a result of the selected preposition.

#### 2.4 Identification of (possible) negative L1 transfer

The most obvious possible motivation for selecting inappropriate prepositions is the learners' L1, i.e. LINDSEI-NO informants may choose a certain preposition because its primary sense corresponds to that of a particular Norwegian preposition used in the same context. For instance, a plausible explanation for preposition choice in *in the end of March* from (4) is that Norwegian requires the preposition *i* in a similar context (e.g. *i slutten av mars*). English *in* and Norwegian *i* are 'basic' correspondents in the sense that they share the same literal (basic) meaning, a sense difficult to express in words (without resorting to the preposition) and thus more effectively illustrated with the help of the following icon representing *in/into*, adapted from Lindstromberg (1998, 27):

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<sup>6</sup> Note that a colon in transcribed text marks a drawn-out word, while the period marks an unfilled pause.

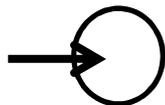


Figure 1. Icon representing the basic sense of in/into.

While L1 influence may be positive in cases where the L1 and L2 prepositions correspond, it may be negative in cases of non-correspondence. It should be noted, however, that whether L1 actually took place is impossible to unambiguously prove as a complete investigation of transfer would require more types of data than is provided in the LINDSEI-NO interviews alone. Jarvis and Pavlenko (2008, 35-47), for example, maintain the need for evidence to measure intergroup homogeneity and crosslinguistic congruity performance in order to measure the consistency of the language produced by this particular group of speakers in the target language, and to compare their English speech with their speech in Norwegian. Such investigation would require an alternative version of the LINDSEI interviews, recorded in the Norwegian language and preferably with the same informants. Such a corpus is currently under compilation at Hedmark University College – the first of its type – but no interviews have yet been transcribed (as of 2014), and the data is thus not currently available for research. Jarvis and Pavlenko further call for evidence of intragroup homogeneity, necessitating investigation into comparable data from learners with L1s other than Norwegian; investigation of the preposition use in the other LINDSEI subcorpora must however await future study, being beyond the scope of the present paper.

The deciding factor indicating possible L1 transfer adopted here is thus the degree of linguistic correspondence between English and Norwegian; following Nesselhauf (2003, 234), “similarity [is] considered an indication that influence was likely.” To uncover indications of possible negative L1 transfer, all contextually inappropriate prepositions were subsequently categorized in terms of their ‘congruence’ between the L1 and L2, a concept adapted from Nesselhauf’s (2005, 221-229) discussion of factors correlating with language learners’ difficulties and developed for analysis of prepositions by Nacey (2013, 221-223). Congruence is based on two factors: 1) the syntactic structures required by the two languages in the particular context, and 2) the correspondence between the basic meanings in congruent cases. There are five main patterns, spread across two general categories. These are shown in Table 1 with illustrative examples from LINDSEI-NO, and explained immediately afterwards.

Table 1. L1/L2 syntactic congruence patterns<sup>7</sup>

Congruence pattern		Example	Nor corresponding prep	Standard Eng prep	
Congruent	Basic	A. it's in (eh) . <i>among the industrial area</i> where there's many high houses (NO012)	i	in	
	Divergent	L1 transfer	B. <i>for me</i> it looked like they m= they liked it .. enjoyed it (NO020)	for	to
		Prep triad	C. I was (eh) going to take my horse . and have it <i>by my uncle's</i> (NO041)	hos	at
	∅	D. the whole (eh) the lines they make outside <i>of bakeries</i> (NO022)	∅	∅	
Non-congruent	L1 required prep	E. <i>for a year ago</i> I wouldn't be able to do it (NO006)	for	∅	
	L2 required prep	F. I was <i>in the staff</i> so .. (eh) (NO050)	∅	on	

If both Norwegian and English require the same type of syntactic structure in the particular context, then the relationship is deemed 'Congruent'; otherwise it is judged 'Non-congruent'. More specifically, congruence concerns those cases where either both languages require a preposition or alternatively, where neither language does. Cases where neither language requires a preposition are termed '∅ congruence'. If both languages do require prepositions, the cases then illustrate either 'Basic congruence' or 'Divergent congruence'. With the former, the basic senses of the contextually appropriate L1 and L2 prepositions match; with the latter, the basic senses do not correspond. Non-congruence, by contrast, involves those cases where only one of the two languages requires a preposition in the context at hand. Non-

<sup>7</sup> Abbreviated forms used in this paper: 'Eng' = English, 'Nor' = Norwegian, 'Prep' = preposition.

congruence may either result from Norwegian requiring a preposition while English requires some other structure (the ‘L1 prep required’ type, where a preposition is required in the L1), or vice versa (the ‘L2 prep required’ type, where a preposition is required in the L2).

As an illustration, Example A in Table 1 shows that the learner has chosen the preposition *among* where the contextually appropriate choice would be *in*. In the corresponding context in Norwegian, the appropriate preposition would have been *i*, the basic correspondent of *in*; an occurrence thus classified as an instance of basic congruence. Such cases demonstrate that negative L1 transfer, while the most immediately obvious source of inappropriate prepositions, is not the only possible explanation.

Where possible L1 transfer does play a role, however, is first of all in the non-congruent (L1 prep) type, but only in those cases where Norwegian requires a particular preposition which is the basic correspondent to that which the learner actually employed. Example E in Table 1 shows one such example, where the learner has said *for a year ago*, having selected the English preposition most closely corresponding to the required Norwegian preposition, had this phrase been uttered in Norwegian (i.e. *for et år siden*).

Secondly, possible L1 transfer is indicated in cases of one of two subtypes of the Divergent congruent type. This subtype has thus been named ‘L1 transfer’, and is illustrated in Example B in Table 1 by a case where the learner’s inappropriate preposition choice matches the Norwegian basic equivalent (English *for* and Norwegian *for*, as opposed to the contextually appropriate English preposition *to*). L1 transfer cannot, however, explain instances of the second subtype of Divergent congruence, named ‘Preposition triad’. In such cases, not only do the basic meanings of the contextually appropriate Norwegian and English prepositions *not* correspond, but the LINDSEI-NO informant has chosen yet a third preposition. In Example C in Table 1, we see that the learner has chosen *by* instead of *at*, while the preferred Norwegian preposition translation equivalent is *hos*; a preposition that does not have a basic correspondence to either of the two aforementioned English prepositions.

### 3. Prepositions in LINDSEI-NO

The records extracted from the LINDSEI-NO material contained 5,791 preposition tokens, after the exclusion of preposition-like elements in polywords and phrasal verb particles. The overall preposition frequency amounts to 6.9% of the total number of words in the material, meaning that one in every 14 words is a preposition. This figure is, however, somewhat inflated due to the nature of spoken discourse, where disfluencies are sometimes realized by repetition of words, as in (7), where *in* has been uttered twice:

(7) they had fr= friends *in* many friends *in* Poland (NO033)

The utterance in (7) accounts for two tokens of *in* in our data rather than just a single occurrence as was probably intended by the speaker. While the inclusion of such ‘superfluous’ tokens has the effect of inflating the overall numbers of prepositions in our data, it also reflects the nature of spoken language and has thus been retained. Although such repetitions have not been specifically registered as part of the present project, registration might nevertheless prove helpful in future studies since the frequency of repetition may affect the interpretation of overuse of certain prepositions in spoken language.

Furthermore, only a handful of preposition types account for the majority of tokens, as the ten most frequent prepositions in our overall material (before the further exclusions explained in Sections 2.2 and 2.3) account for 86.4% of all preposition occurrences. Listed in order of decreasing frequency with the number of tokens noted in parentheses, these top ten prepositions are *in* (1301), *of* (877), *to* (615), *for* (470), *with* (428), *on* (325), *at* (300), *from* (253), *like* (226), and *about* (206). As Table 2 shows, the exclusion of some of the records resulted in a total of 5,174 prepositions subject to complete analysis in terms of appropriateness and syntactic congruence.

Table 2. Overview of preposition records extracted from LINDSEI-NO

Total no. of prepositions		5791
Excluded from overall analysis	Titles	37
	<i>as, like and than</i>	365
Excluded from ‘appropriateness’ statistics	‘DK’ category	148
	‘Other’ category	67
Total no. of fully analyzed prepositions		5174

### 3.1 How often do these learners produce an inappropriate preposition?

One of the initial enquiries of our investigation was the Norwegian learners’ language competence specifically related to English L2 preposition use, indicated through categorization of appropriateness of contextual preposition use. The results of the analysis show that of the 5,174 prepositions in the data, close to 96 % were deemed contextually appropriate (see Table 3). In terms of the overall number of words uttered by learners, inappropriate prepositions account for only 0.3%, quite a low percentage given the ‘bad press’ concerning the difficulties associated with L2 preposition acquisition. Indeed, our empirical data raises doubt about the prevailing view of prepositions being a formidable challenge for L2 learners.

Table 3. Appropriateness in preposition use in LINDSEI-NO

	Total	% of all prep. (n=5,174)	% of word total (n=83,313)
Appropriate	4,953	95.7	5.9
Inappropriate	221	4.3	0.3

There are, however some factors that may pertain to the results of the particular learners in this corpus material. Recent surveys rank Norway among the top nations with the highest English proficiency level in general (e.g. EF Education 2012), which may make the proficiency of these students fairly high in comparison with some groups of English L2 learners. In addition, the Norwegian language is typologically quite similar to English, with much the same structures and contexts for preposition use, and with a large number of etymologically related and formally similar preposition lexemes. Following this, the high degree of appropriate preposition use may be viewed as a result of positive L1 influence, although impossible to verify based on the present material. In the remaining sections we therefore focus on inappropriate preposition use.

## 3.2 Is there a correlation between inappropriate use and L1 influence?

Table 4 provides an overview of the 221 instances of inappropriate preposition use in the material. Here it can be seen that more than 90% of the prepositions in our data illustrate a congruent relationship between English and the students' L1, meaning that both languages require a preposition (or alternatively, neither language requires a preposition: 'Ø') in the corresponding syntactic patterns. In most cases, there is thus no need for Norwegian students to drastically restructure their utterances with respect to prepositions, as might be the case with L1 speakers of other languages where similar relationships are encoded through other grammatical constructions than prepositions.

Table 4. *Inappropriate preposition use in LINDSEI-NO*

Congruent	200 (90.5%)	Basic	52 (23.5%)		
		Divergent	133 (60.2%)	L1 transfer	83 (37.6%)
				Prep. triad	50 (22.6%)
		Ø	15 (6.8%)		
Non-congruent	21 (9.5%)	L1 prep	16 (7.2%)		
		L2 prep	5 (2.3%)		
Total	221				

Of the congruent prepositions, the predominant type, accounting for roughly 60% of all inappropriate prepositions in our material, is divergent congruence, where both English and Norwegian require a preposition in the structure but the basic senses of the appropriate L1 and L2 prepositions do not match. As discussed in Section 2.4, the divergent congruence type comprises two subtypes: the 'L1 transfer' type and the 'preposition triad' type. The preposition *after* in (8) provides a further illustration of the L1 transfer type, in addition to the example involving *for* previously presented in Table 1.

(8) I inherited [it] *after* my great great grandma (NO013)

The context in (8) requires the preposition *from* in English, while the preposition *etter* in the corresponding structure in Norwegian. Since *etter* has the same basic sense as English *after*, the selection of preposition by the learner may be viewed as having resulted from negative L1 transfer. Roughly 63% of the divergent congruent prepositions fall into this L1 transfer subtype, equalling almost 40% of the total number of inappropriate prepositions in the LINDSEI-NO learner turns. Although it is impossible to unambiguously prove on the basis of a single audio recording whether L1 transfer actually occurred (as previously noted in Section 2.4), the degree of linguistic congruence between English and Norwegian here nonetheless provides the deciding factor indicating possible L1 transfer.

This preposition choice most likely does not affect the communicative success of the utterance, mutual understanding arguably being the primary goal of the participants in the LINDSEI interview situation (rather than e.g. grammatical accuracy). Examination of the context shows no indication of misunderstanding on the part of the interviewer; misunderstanding would also have been unlikely had the interviewer not spoken Norwegian. In terms of the English as a Lingua Franca paradigm, where one of the most important measures of success is successful communication, this particular instance would arguably raise no problem. Nevertheless, this use is inappropriate in the sense that it is not codified in standard English dictionaries and thus does not conform to standard British or American English.

The preposition *on* is the most challenging for the Norwegian LINDSEI informants. Close to one in five of all instances of this preposition (64 of 325) in our material are inappropriate, the vast majority of which fall into the L1 transfer congruence category. One such example is provided in (9); this same context in Norwegian calls for the preposition *på* (which shares its basic meaning with *on*), while English prefers *in*.

(9) when I was *on* upper secondary school (NO041)

All told, inappropriate use of *on* may be attributed to negative L1 transfer in 50 instances, a preposition accounting for nearly 23% of the 221 inappropriate prepositions uttered by the learners.

In addition, negative L1 transfer may be indicated by non-congruent instances where Norwegian requires a preposition which is the basic correspondent to that employed by the learner, while English prefers no preposition. As Table 2 shows, only 21 instances have been categorized as non-congruent, equaling roughly 10% of all inappropriate prepositions. Sixteen of these non-congruent occurrences involve contexts where only Norwegian requires a preposition, the ‘L1 prep’ subtype. In turn, 14 of these instances instantiate negative L1 transfer, illustrated in (10) where the identical context in Norwegian requires the preposition *i*, which is the basic correspondent of *in* (the preposition uttered by the learner despite English preferring no preposition, i.e. ‘drove the wrong way’).

(10) when they drove . *in* the wrong way on the road (NO020)

In sum, we find 97 out of 221 inappropriate prepositions attributable to negative L1 transfer: 83 belong to the divergent, L1 transfer congruence type while 14 belong to the non-congruent, L1 prep type.<sup>8</sup> This corresponds to 44% of all inappropriate prepositions, leading to the conclusion that negative L1 transfer is certainly an important factor in terms of challenges learners face with respect to preposition use.

On the other hand, 56% of the inappropriate prepositions may *not* plausibly be attributed to negative transfer. However, there is no one congruence type which clearly predominates in this 56%, the next most frequent types being basic congruence (with 52 occurrences, 23.5% of the inappropriate prepositions) and the preposition triad subtype of divergent congruence (with 50 occurrences, 22.6% of the inappropriate prepositions). In the occurrences of basic congruence, there is a match between the basic sense of the contextually

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<sup>8</sup> Note that Table 4 shows that there are 16 instances of the non-congruent, L1 prep type. In the two remaining instances, the learner has chosen an (inappropriate) English preposition that does not share the basic sense of the (appropriate) Norwegian preposition. It is only in the remaining 14 cases that L1 transfer is indicated.

appropriate preposition use in both languages, as in (11), where both English and Norwegian would normally have the basic corresponding prepositions *with/med*, but where the student uses *at*.

(11) arguing *at each other* (NO037)

Because there is no contrast between the L1 and L2 in this area, predictions on the basis of contrastive analysis would suggest that Norwegians would find this preposition choice unproblematic, yet a third preposition has nevertheless been employed. In essence, the potential influence of the L1 has been overruled. This apparently counterintuitive behavior has been noticed and termed as ‘striking’ by other researchers (Lowie and Verspoor 2001, 83; Nesselhauf 2005, 187). Nacey, in her investigation of preposition use in the written English production of Norwegian L1 students (detailed further on in Section 3.3), reasons that somewhere along the way, learners have acquired the belief that prepositions are difficult, and simply assume there must be a difference; “Choosing a preposition unrelated to the Norwegian alternative makes the English text appear just that: more English, or at least less Norwegian” (Nacey 2013, 235).

When it comes to written texts, it may be argued that learners do have some choice in their preposition use, given the possibility to edit their texts. Such a possibility is more limited when it comes to spoken conversation, although not impossible, as is apparent in our material in cases of self-correction, exemplified in (12) where the learner utters the inappropriate preposition *in*, hesitates slightly, and then provides the conventionally accepted preposition for the context.

(12) from . (eh) eight fifteen to= [...] three PM . *in* (eh) *on Tuesdays* (NO032)

Such self-correction is the exception rather than the rule, however, as there is some pressure to continue speaking despite grammatical inaccuracies, which might often go unnoticed by both the speaker and listener. That cases of basic congruence are evident also in informal oral interviews to such an extent, in the relatively fast-paced mode of conversation where learners do not necessarily have time for conscious reflection about word choice (especially with respect to function words) indicates that something more than a desire to sound more English is in operation. Uncovering the mechanism underlying the production of these inappropriate prepositions provides an avenue for future research.

The same may be said for the cases of preposition triads with a congruence relationship involving three prepositions. In (13), for example, the learner has not succumbed to the temptation of L1 transfer by not selecting *on*, even though the Norwegian contexts calls for *på*, but in the process has nonetheless landed upon an inappropriate preposition, here uttering *in* when the preposition *to* is preferred.

(13) you: came *in the right . place to be* (NO038)

In general, Norwegians are believed to overuse *on* in the many circumstances when *på* would be appropriate in Norwegian, to such an extent that learners are warned away from automatically assuming that the two always correspond (see e.g. Austad, Andersen, and Peel 1999, 97). Unfortunately, although they may therefore learn to exercise caution with this particular preposition pair, the learners may not be sufficiently cognizant of exactly when that caution is indeed justified, nor how to correctly choose alternative prepositions.

### 3.3 Is there a difference between Norwegian learners' preposition use in oral and written language?

The final area of inquiry for our study involves a comparison of preposition usage in the spoken and written English of Norwegian learners, our hypothesis being that there would be more inappropriate prepositions in spoken discourse since oral conversation leaves less time for editing after the fact. To address this question, we compare the results gleaned on the basis of the LINDSEI-NO material presented in this paper, with results from a study of preposition usage in the written English of Norwegian learners, as part of a wider corpus-based investigation reported by Nacey (2013). This earlier study was based on 20,000 words from argumentative essays collected between 1999 and 2002 for the Norwegian component of the International Corpus of Learner English ('NICLE', see Granger et al. 2009), a corpus of written learner English that closely parallels the structure of LINDSEI since both consist of various (comparable) subcorpora produced by learners with different L1 backgrounds. All 20,000 words of text were first annotated for part of speech using CLAWS,<sup>9</sup> allowing for the straightforward identification of all prepositions. Just as in the current study, certain prepositions were excluded for analysis, following the guidelines outlined in Section 2.2. The remaining prepositions were then categorized for appropriateness and congruence, also in a manner identical to the procedure followed for the present LINDSEI study. Results from the two studies are thus readily comparable, the one significant difference between them being the number of words investigated, as the LINDSEI-NO data comprises slightly more than four times the number of written words analysed from NICLE.

Table 5 provides a comparative overview of the appropriate and inappropriate prepositions in the two corpora, reproducing the figures from Table 3 for the sake of convenience. The observed occurrences of prepositions are necessarily different due to the varying sizes of the corpora, but the overall percentages of prepositions are more or the less the same, with only a slightly higher proportion of prepositions in the written texts overall than in the spoken texts (given the same exclusions in both corpora). Had repeated occurrences of prepositions in disfluent language been discounted, this difference would have been even greater.

Table 5. Prepositions in LINDSEI-NO and NICLE

	LINDSEI ( <i>n</i> =83,313)	NICLE ( <i>n</i> =20,468)
Total (analyzed) prepositions	5174 - 6.2% of word total	1715 - 8.4% of word total
Appropriate	4,953 - 95.7% of prep. total - 5.9% of word total	1636 - 95.3% of prep. total - 8.0% of word total
Inappropriate	221 - 4.3% of prep. total - 0.3% of word total	79 - 4.6% of prep. total - 0.4% of word total

<sup>9</sup> The LINDSEI texts were manually combed for prepositions rather than being annotated with CLAWS because it was feared that the abundant number of disfluencies would make the annotation results unreliable. The CLAWS tagger is located here: <http://ucrel.lancs.ac.uk/claws/>.

When it comes to the ratio of appropriate and inappropriate prepositions in the two corpora, the figures in Table 5 indicate a close degree of agreement. In written discourse, inappropriate prepositions thus account for 4.6% of the prepositions in that corpus, compared with 4.3% in spoken discourse – only 0.4% and 0.3%, respectively, of all words. Had tokens of *as*, *like*, and *than* been included in our data, the percentage of inappropriate prepositions would have been even smaller; nearly all instances of the three prepositions in both LINDSEI-NO and NICLE are conventionally appropriate. Contrary to our initial hypothesis, therefore, spoken texts are *not* characterized by more inappropriate prepositions than written texts.

Preposition use in the two corpora is also similar in other respects, including the predominance of only a few prepositions: the top ten prepositions in NICLE represent more than 80% of all prepositions in that data. The ‘top ten’ prepositions are nearly the same in the two corpora, except for *by* ranking among the ten most frequent prepositions in NICLE (and the eleventh most common in LINDSEI-NO), while *like*, which is among the top ten in LINDSEI-NO, is the twelfth most common in NICLE. In other words, there is only a fairly limited number of highly frequent prepositions which are of primary concern for the language learner, for either mode of discourse.

Results concerning the analysis of the inappropriate NICLE prepositions closely parallel those from LINDSEI-NO. The vast majority of cases exhibited a congruent relationship, perhaps unsurprising given that both English and Norwegian are Germanic languages and thus share many syntactic features. Negative L1 transfer was also found to play an important role in NICLE, indicated in the production of roughly one-third of all inappropriate prepositions through a combination of cases of the L1 transfer subtype of divergent congruence, together with seven of nine instances of the L1 preposition subtype of non-congruence (where the preposition chosen by the learner corresponds to that which would ostensibly have been employed in Norwegian, even though English actually requires no preposition). Like in the LINDSEI-NO material, occurrences of possible L1 transfer represent the largest single block of inappropriate prepositions, even though in neither corpus do they constitute the majority. Other congruence types – particularly basic congruence and the preposition triad subtype of divergent congruence – are represented in the data, but not to the same degree as the two types indicating L1 transfer.

In short, prepositions may be less problematic than is generally believed, in both spoken and written corpora. When inappropriate prepositions are produced, however, the single most likely source is negative L1 influence, even though possible transfer was indicated in less than half of all inappropriate use (albeit more in spoken than written learner English). Although the occurrences of other congruence types, when considered together, add up to more than those of L1 transfer, there is no one alternative type that dominates.

It should be noted that we have been unable to uncover results from any other corpus-based studies of preposition use in learner language with which to directly compare our findings. Some few corpus-based studies of preposition use in written language have been carried out, but none for spoken language (as far as we know). Köhlmyr’s (2003) investigation of all grammatical errors in the written English of Swedish ‘mixed-ability’ 16-year-old pupils reports 619 preposition errors in 71,000 words of text, 0.87% of the total words investigated. As she provides no information about the total number of prepositions in her corpus, her findings may at best be compared with the NICLE findings where inappropriate prepositions account for 0.4% of the entire word total – suggesting that the number of inappropriate

prepositions declines as English becomes more advanced (as one would hope). Chapetón (2010) reports that prepositions account for 70.1% of all non-native-like uses of metaphorical language identified in roughly 20,000 words of Spanish ICLE subcorpus, leading her to conclude that prepositions are problematic for L2 language learners. Her findings, however, cannot be compared directly to the findings here as her study relates only to metaphorical instances of written preposition use (rather than all uses), she provides no figures for the proportion of inappropriate preposition use seen in relation to the total number of prepositions, and she emphasizes that her figures are not based on any comprehensive error analysis.

#### **4. Concluding remarks**

The findings presented in this paper may seem surprising in light of the widespread perception that English prepositions are difficult to acquire. The Norwegian learners who contributed to the LINDSEI-NO data employed most prepositions appropriately; they produced contextually inappropriate prepositions in less than 5% of the cases, which represents only 0.3-0.4% of the total number of words in the material. These results challenge positions that categorize preposition use as a “nightmare” for learners, a judgement which may arise from the view of preposition errors as highly salient, on a par with lexical errors in general (Włosowicz 2012, 140). It also opens up for a consideration of so-called ‘positive transfer’, where conventionally appropriate language could be seen as an indication of L1 influence (Nesselhauf 2005, 234), even though whether transfer actually took place or not is impossible to prove unambiguously.

Our findings support the position that negative L1 transfer, having been indicated in 44% of the observed number of inappropriate prepositions, plays an important role in their production. There is no other single factor that contributes to production of inappropriate prepositions to such an extent, at least with respect to syntactic congruence between the L1 and L2. That said, our results also indicate that L1 transfer has a stronger effect with regard to certain prepositions (e.g. *on*), rather than all of them. When dealing with prepositions in the language classroom, it would therefore make most sense to focus on those that are frequent – e.g. the ‘top ten’ – and/or those that have been demonstrated to be especially difficult for learners from the L1 background in question. Whether the same prepositions are especially problematic for all L1 groups is a question for future research, through for example parallel studies of preposition use in the other ICLE and LINDSEI subcorpora.

A further area for future investigation concerns reasons for inappropriate preposition use that may not plausibly be attributed to negative L1 transfer. This study shows, for example, that almost one in four inappropriate prepositions exhibit a basic congruence relationship between the English and Norwegian prepositions, such that there would have been no observed anomaly had the learner selected the most likely translation equivalent between the two languages for the context at hand. Here we suggest one possible explanation for this demonstrable lack of positive L1 influence, namely a form of hypercorrection where learners assume that there must be a difference between L1 and L2 preposition use even in instances in which this is not the case, and thus opt for an L2 choice which differs from the basic congruence type. However, more research is called upon to further explore this hypothesis.

Concerning the learners’ use of prepositions in oral versus written language, the results of the present investigation reveal no major difference, meaning that preposition

selection does not become more challenging for learners under the pressure of face-to-face spoken interaction. There are some minor differences between the use of prepositions in the corpus data from NICLE and LINDSEI-NO, such as a slight difference in the percentage of prepositions in the overall material, and in the proportion of different preposition types. Such variation may be related to the different topics dealt with in the spoken and written discourse, and/or variations between the different genres (essay and conversation) and the style level. It should also be noted, however, that the Norwegian learners represented in the two corpora are not the same, as LINDSEI-NO was compiled more than a decade after NICLE. In this regard, one additional avenue for future research would thus be to investigate the spoken and written preposition use of the same learners, rather than of different groups.

Finally, results from the present study suggest other areas for investigation, in addition to those already proposed, that would possibly yield valuable findings. First, an investigation examining the degree of metaphoricity of the prepositions in LINDSEI-NO is already underway (Nacey 2014), to complement a parallel investigation of metaphoricity of the prepositions written by Norwegian learners in NICLE. The aim of such research is to investigate another possible cause for the production of inappropriate prepositions, in addition to negative L1 transfer – that is, whether challenges increase as the contextual sense of the preposition moves farther from its basic, most concrete sense. Moreover, while the present research focuses on the language of Norwegian speakers of advanced English, it would also be desirable to investigate the preposition use among speakers and writers of lower proficiency levels, to discover whether prepositions ever really present the obstacles commonly held to be characteristic of them, and if so, to identify the point at which they cease to be stumbling blocks. Such studies should be conducted for Norwegian speakers, as well as for English language learners with other L1s. Yet another potentially useful approach would be to investigate the usage of a selection of the prepositions that seem more problematic for these L2 learners, based on a wider scope of data from various sources, genres and style levels. In short, there is still work to be done.

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