Metalinguistic knowledge about the native language and language transfer in gender assignment

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Abstract

Whereas Standard Dutch only distinguishes between two adnominal grammatical genders, substandard varieties of Belgian Dutch distinguish between three such genders. German, too, distinguishes between three genders. Nevertheless, when assigning gender to German nouns with Dutch cognates, speakers of Belgian Dutch are strongly influenced by Standard Dutch gender but to a much lesser degree (if at all) by substandard gender. On the hypothesis that a lack of metalinguistic knowledge about L1 substandard gender decreases its use as a source for transfer, I experimentally manipulated the metalinguistic knowledge about L1 substandard gender of 45 speakers of substandard Belgian Dutch varieties. I then assessed how strongly this manipulation affected the participants' reliance on substandard gender distinctions when they assigned gender to L2 German nouns with Dutch cognates. Results confirm the strong influence of Standard Dutch, hint at a weak influence of substandard Dutch, and show no appreciable effect of the experimental manipulation.

Keywords: crosslinguistic influence; Dutch; German; grammatical gender; metalinguistic knowledge; substandard variety

1. Introduction

The influence of the first language (L1) on the learning and use of an additional language (L2) is a classic topic in bilingualism and language acquisition. By and large, such

crosslinguistic influence or language transfer is more pronounced in areas in which the L1 and L2 are similar to one another (e.g., Ringbom, 2007). At the same time, it is widely recognized that "not everything that *looks* transferable [from the linguist's perspective] *is* transferable [from the learner's]" (Kellerman, 1983, p. 113, his emphasis), and research has sought to identify factors that promote or hamper transfer (for overviews, see Jarvis & Pavlenko, 2008, Chapter 6; Odlin, 1989). Here I ask to what extent the metalinguistic knowledge the learner has about the L1 is one such factor.

2. Background

2.1. Grammatical gender in German and Dutch

The present study's point of departure is Vanhove's (2017) findings regarding standard and substandard influences from the L1, Dutch, on gender assignment in a closely related L2, German. German distinguishes between three adnominal grammatical genders (masculine, feminine, and neuter). Among other things, this is reflected in the singular nominative definite article (*der*, *die*, *das*). Dutch is closely related to German, but in its standard and Northern (Netherlandic) varieties, masculine and feminine gender have merged to form a common-gender category adnominally. This common gender contrasts with neuter gender, a difference that is particularly obvious in the choice of the definite article (*de* vs. *het*). Dutch pronouns can still be masculine or feminine, but this is largely a semantic matter (e.g., feminine pronouns for women and occasionally for female animals; Audring, 2009).

Despite this difference in gender systems, German-speaking learners of Dutch clearly see a link between the gender systems of German and Dutch. They tend to assume that the gender of Dutch nouns is compatible with that of their German translation equivalents, particularly if these are cognates: if a Dutch word has a neuter German translation equivalent, they tend to assign neuter gender to it; if it has a masculine or feminine translation equivalent, they tend to assign common gender to it (Lemhöfer, Schriefers, & Hanique, 2010; Lemhöfer, Spalek, & Schriefers, 2008; also see Sabourin, Stowe, & de Haan, 2006). This assumption is sometimes incorrect (for examples, see the stimuli used in the present study), but to my knowledge, no data are available as to how often it is. In the other direction, Dutch-speaking learners of German similarly assume that neuter Dutch words tend to have neuter German translation equivalents (Vanhove, 2017), but they cannot rely on their L1 to distinguish between L2 masculine and feminine gender.

In many substandard varieties of Belgian Dutch, however, the masculine/feminine distinction is still largely maintained adnominally. Here it is most reliably marked on the indefinite article (*ne(n)* vs. *een*). Table 1 shows how singular noun phrases are marked for gender in German, Standard Dutch, and substandard

Belgian Dutch (the latter based on De Vogelaer and De Sutter's [2011] description of East-Flemish). Vanhove (2017) hypothesized that speakers of Belgian Dutch who are familiar with a three-gender substandard variety would make use of this additional masculine/feminine distinction when assigning gender to German nouns: compared to speakers of Netherlandic Dutch, Belgian speakers of Dutch were expected to more often assign feminine gender to German words whose cognates are feminine in substandard Belgian Dutch and masculine gender to words with masculine cognates in substandard Belgian Dutch. But while both the Dutch and Belgian participants' German gender assignments revealed a substantial influence from the common/neuter distinction in Standard Dutch (i.e., they generally assigned neuter gender to German nouns with neuter Dutch cognates and masculine or feminine gender to German nouns with common Dutch cognates), at best a weak trace of the additional substandard masculine/feminine distinction was found in the Belgian data (depending on the specific analysis; see Vanhove, 2017, p. 454).

Table 1 Adnominal gender marking in German (nominative), Standard Dutch, and substandard Belgian Dutch. The masculine/feminine distinction is not upheld in Standard Dutch, but it is in substandard Belgian Dutch.

Gender	German	Standard Dutch	Substandard Belgian Dutch	Translation
masculine	ein grosser Hund, der grosse Hund	een grote hond, de grote hond	ne groten hond, de groten hond	a big dog, the big dog
feminine	eine grosse Katze, die grosse Katze	een grote kat, de grote kat	een grote kat, de grote kat	a big cat, the big cat
neuter	ein grosses Pferd, das grosse Pferd	een groot paard, het grote paard	e(en) groot paard, het groot paard	a big horse, the big horse

2.2. Sociolinguistic markedness and psychotypology as explanations for non-transfer

A couple of reasons can be invoked to account for a lack of influence from the L1 substandard. First, James (1983) suggested that sociolinguistic markedness may cause learners to assume that substandard L1 characteristics are less suitable for transfer than standard elements. This may tie in with the observation that non-linguists often consider standard varieties, more so than substandard ones, to be logical and well-structured (Berthele, 2010; Niedzielski & Preston, 1999, Chapter 1). Second, non-transfer of what would seem to be transferable features is often explained in terms of the learners' "psychotypology," that is, their sense of how languages are related to each other (Kellerman, 1983; see also Pająk, Fine, Kleinschmidt, & Jaeger, 2016, and Rothman, 2015, for similar recent proposals): perhaps speakers of Belgian Dutch do not rely on their substandard gender system

because they do not perceive their substandard variety to be close enough to German to be of any use.

While these are plausible explanations, they are difficult to verify. Psychotypology in particular is often cited as a factor in language transfer, but only in a few studies did researchers attempt to measure it (e.g., Hall et al., 2009; Lindqvist, 2015; Neuser, 2017; Sánchez & Bardel, 2016). The authors of these four studies tried to measure their participants' psychotypology by means of questionnaires, and the results are difficult to interpret. Lindqvist (2015), for instance, did not observe a relationship between the participants' responses and their transfer tendencies, whereas Neuser (2017) noted a mix of expected and counter-intuitive findings with respect to whether greater psychotypological proximity increased or decreased (negative) lexical transfer from three potential source languages. But are we to conclude that psychotypology does not predictably affect learners' transfer tendencies or rather that the questionnaires may not have provided a good enough approximation of the respondents' actual psychotypology? It is not clear to me how any measure of psychotypology could be validated without already assuming that inter-individual differences in psychotypology predict transfer tendencies. Incidentally, Rothman (2015) rejects the idea that his conceptualization of (subconscious) psychotypology can meaningfully be measured using questionnaires. I do not know of any study that measured individual perceptions of sociolinguistic markedness and correlated these to the respondents' transfer tendencies.

2.3. Lack of metalinguistic knowledge as a possible explanation for non-transfer

Apart from sociolinguistic markedness and psychotypology, a third possible reason for the lack of transfer from the L1 substandard in Vanhove's (2017) study may be the participants' lack of metalinguistic knowledge about the substandard's gender system. If speakers of substandard Belgian Dutch do not know that their dialect distinguishes between masculine and feminine gender, or if they are not aware of which words are feminine and which are masculine, then this may make it more difficult for them to make the "necessary crosslingual tie-ups" (Kellerman, 1983, p. 114) or "interlingual identification" between the genders of a L1 noun and its L2 cognate (Weinreich, 1953, p. 7). This, in turn, would lessen the likelihood that gender transfer takes place. The suggestion here is not that metalinguistic knowledge is an absolute precondition for transfer to take place, but rather that metalinguistic knowledge about grammatical gender may affect – and in this case facilitate – transfer. This does not deny that transfer in general may take place unconsciously, though it does assume that it can also occur as a deliberate strategy (cf. Jarvis & Pavlenko, 2008, p. 24).

In this particular case, sociolinguistic and linguistic factors may conspire to render the masculine/feminine distinction opaque to speakers of Belgian Dutch dialects. On the sociolinguistic level, the language of schooling in Dutch-speaking Belgium (Flanders) is Standard Dutch, not substandard Dutch. While pupils at Flemish schools may be taught explicitly about Standard Dutch features, they are unlikely to learn about substandard features. On the linguistic level, the masculine/feminine distinction is not consistently maintained in pronominal reference, that is, adnominally masculine noun phrases can be referred to pronominally using masculine, neuter, or even feminine pronouns (and vice versa), depending on semantic factors (see De Vogelaer, 2009; De Vogelaer & De Sutter, 2011). As a result, Flemings cannot reliably infer a noun's adnominal gender by reflecting on how they would refer to it pronominally. Moreover, the masculine/feminine distinction is often ambiguous adnominally, especially in definite contexts. For instance, *den* is the masculine definite article used before vowels and a handful of consonants. Before other consonants, *de* is used both as the masculine and feminine definite article such that the masculine/feminine distinction is only marked in some phonological contexts (for data, see Vanhove, 2017, on-line materials).

Most research on metalinguistic knowledge in L2 learning concerns metalinguistic knowledge about the target language (e.g., Alderson, Clapham, & Steel, 1997; Ellis et al., 2009; Roehr, 2008). Research on metalinguistic knowledge about source languages (typically the L1) and more specifically its relation to language transfer is scarce. While metalinguistic knowledge concerning the source language(s) is occasionally invoked as an explanation for the presence or absence of transfer (e.g., Cenoz, 2001; Gallardo del Puerto, García Lecumberri, & Cenoz, 2006; Odlin, 1990; Vanhove, 2017; see also Ringbom's [2007] prediction about the utility of L2 Finnish in learning Swahili), this explanation is rarely put to the test. To my knowledge, the only exception is a study by Falk, Lindqvist, and Bardel (2015), who investigated the relationship between L1 Swedish explicit metalinguistic knowledge and L3 Dutch adjective placement and found that better performance on the L1 metalinguistic test was associated with more accurate L3 adjective placement. Since adjectives precede nouns in both L1 Swedish and L3 Dutch, this relationship can be taken to suggest that higher L1 metalinguistic knowledge correlates with the participants' tendency to transfer a L1 structure to the L3. However, Falk et al.'s (2015) metalinguistic test also contained questions not related to L1 adjective placement so that it is difficult to assess if metalinguistic knowledge about a specific L1 structure or feature affects transfer tendencies with respect to this feature. In conclusion, research that directly tackles the question, *How does metalinguistic knowledge about a potential source language (L1) feature affect learners' transfer tendencies?*, is lacking. The present study aimed to fill this research gap.

3. Method

Falk et al. (2015) used a correlational design to address a question similar to mine, but I anticipated to find little variation among informants on a metalinguistic test of substandard gender knowledge. I therefore decided to induce such variation in an experiment. The premise was that if a lack of metalinguistic knowledge about substandard gender categories and gender marking hampers substandard-to-German transfer of adnominal gender (hypothetically by decreasing the odds of the relevant interlingual identification being made), then explicit instruction about L1 substandard gender should increase learners' propensity to transfer substandard gender to German. Importantly, the hypothesis is that instruction about L1 substandard gender will increase the number of crosslingually congruent L2 gender assignments, *not* that it will improve the accuracy of these gender assignments. For instance, assigning masculine gender to German *Steak* would be crosslingually congruent but incorrect, since *Steak* is neuter.

In an online between-subjects experiment, speakers of Belgian Dutch were assigned to one of three conditions that differed with respect to how much gender-relevant metalinguistic instruction was provided. After receiving this instruction and answering a handful of questions testing their comprehension of it, the participants were asked to assign gender-marked articles to German nouns with Dutch cognates and to indicate for a number of gender-marked Dutch noun phrases whether they would use these themselves, in a design similar to Vanhove's (2017). This made it possible to determine whether the participants' German gender assignments reflected gender differences in their L1 substandard.

3.1. Participants

The envisaged participants were middle-aged to elderly speakers from around the Flemish–Brabantian dialect border in the province of East Flanders, specifically from the 'Denderstreek,' which spans from Dendermonde to Geraardsbergen. Speakers in this age range tend to have more affinity with substandard varieties than the mostly 20- to 30-year-olds in Vanhove's (2017) study. The Denderstreek was chosen because it is one of the regions whose dialects are characterized by elaborate three-way adnominal gender marking (De Vogelaer & De Sutter, 2011). Potential participants were contacted mainly through local history societies. In the end, 48 speakers of Belgian Dutch (12 women; median age: 61 years) completed the entire task. (An attempt to recruit an additional control group of middle-aged to elderly dialect speakers of Northern Dutch had to be abandoned altogether due to even greater difficulties in recruiting them.) The data from three participants were excluded from the analyses for fear that

they were not paying sufficient attention (see Results section). Two of the remaining participants grew up elsewhere in East Flanders; the results reported below do not hinge on their in- or exclusion.

According to a questionnaire, all participants considered Dutch to be their sole native language, and all claimed to at least know a local dialect or sometimes use a supraregional substandard variety of Belgian Dutch in which three-way gender marking is also commonly found (*tussentaal*, literally 'in-between language'; Taeldeman, 2008). Figure 1 contains additional information about the participants. The data in the fifth plot ('L2 German gender knowledge') stem from the L2 gender assignment task introduced further below and show that the participants' actual knowledge of L2 gender was modest.
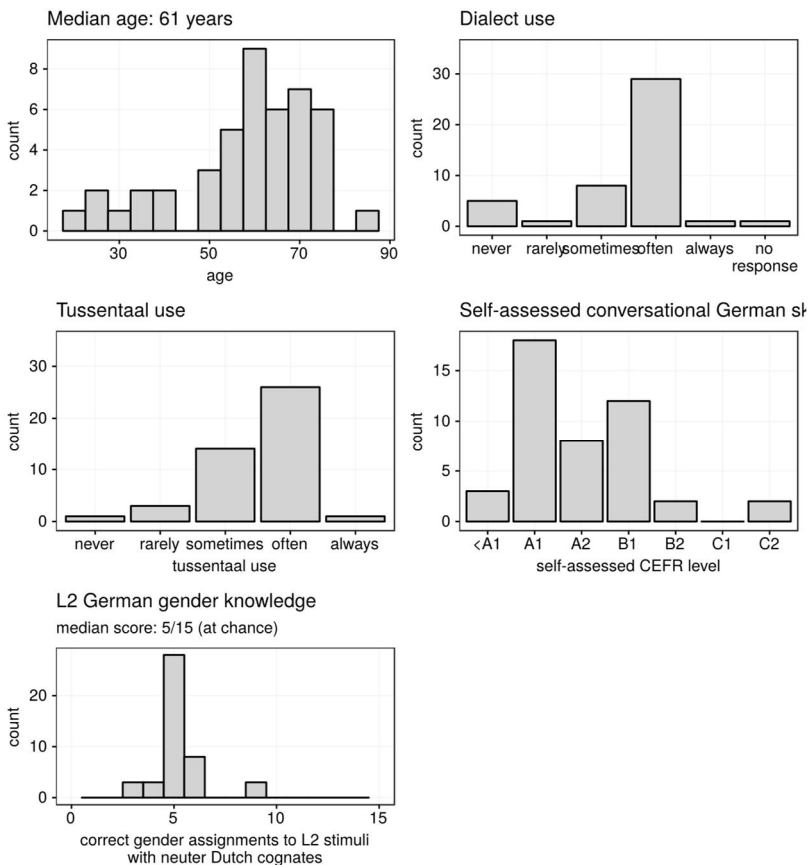

Figure 1 Description of the participant sample. The participants' age, dialect and *tussentaal* use, and their self-assessed conversational German skills were collected a questionnaire; for the assessment of their German gender knowledge, see the Tasks section

3.2. Tasks

Metalinguistic instruction and training. The participants were randomly assigned to one of three conditions. These differed with respect to how much information the participants received about grammatical gender distinctions in their dialect. The rationale behind having three conditions is more easily explained after having introduced them.

'Strategy' condition. In this condition, participants were told that Standard Dutch distinguishes between neuter and common gender, which can be told apart on the basis of the definite singular article (*het* vs. *de*). They were also told that their substandard variety, like German but unlike Standard Dutch, distinguished between three grammatical genders. It was explained to them how they could tell the substandard gender of Dutch words on the basis of the determiners that these words can and cannot take. Specifically, they were told that if a Dutch word (e.g., *dak* 'roof') could be combined with the determiners *het* 'the' or *da(t)* 'that' in their dialect, then this word was neuter in their dialect. If a word (e.g., *computer*) could be combined with the determiners *ne(n)* 'a' or *diene(n)* 'that,' then this word was masculine in their dialect. If a word (e.g., *pen* 'pen') could be combined with *de* 'the' but not with *ne(n)* or *diene(n)*, then the word was feminine in their dialect. It was also pointed out to them that the biological and grammatical genders of a word need not coincide (using neuter *kind* 'child' as an example).

After receiving this information, the participants practiced the strategy for identifying the substandard grammatical gender of Dutch nouns. They were shown ten words (one at a time) and were asked questions about which determiners these can take in their dialect. They were then asked to name the grammatical gender of each word in their dialect, after which they received feedback on whether their latter response was consistent with their answers concerning the determiners that these words could take. Figure 2 shows how the questions asked and the feedback given were conditional on the participants' earlier answers. This strategy was practiced for ten words: *regering* 'government,' *paard* 'horse,' *meisje* 'girl,' *velo* 'bicycle,' *auto* 'car,' *stok* 'stick,' *concert* 'concert,' *slachtoffer* 'victim,' *kerk* 'church,' and *gazet* 'newspaper.' Four of these are neuter nouns (*paard*, *meisje*, *concert*, *slachtoffer*); the others were non-neuter (three masculine and three feminine in the author's own dialect).
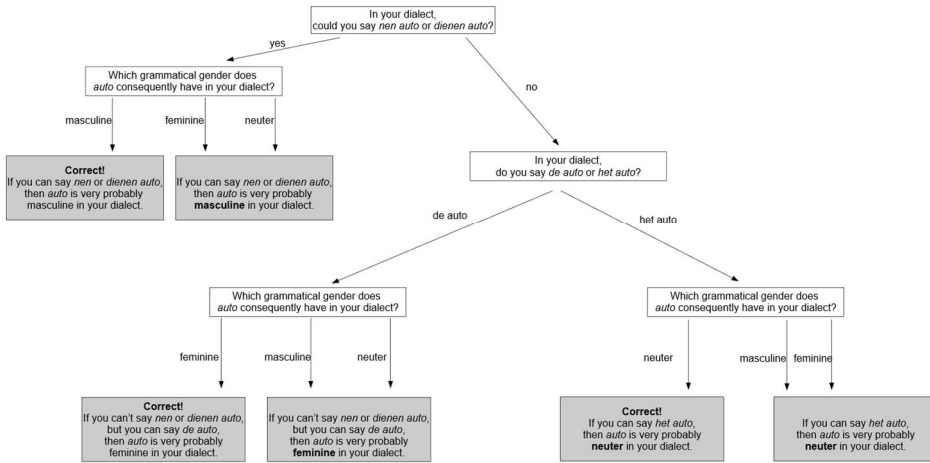
Figure 2 Participants in the 'strategy' condition were asked one or two questions about which determiners they thought ten Dutch words could take in their dialect (white boxes). They then identified the grammatical gender of these words. The feedback (grey boxes) highlighted whether their latter response was consistent with their answers to the question(s) about the determiners that the word could take. The questions and feedback were in Dutch. This flowchart was not shown to the participants

'No information' condition. In this condition, the participants were not told about gender distinctions. Instead, they were provided with correct but task-irrelevant information about a syntactic phenomenon common in many substandard Belgian Dutch dialects, viz., double subject marking (De Vogelaer & Devos, 2008). Three examples of subject doubling were shown to the participants, among which the example in (1); the glosses and English translations were not provided.

(1)	Ze	werkt	zij	in	Duitsland.
	she.WEAK	works	she.STRONG	in	Germany.
	'She works in Germany.'				

The participants were told truthfully that different dialects permit pronominal subject doubling in different contexts and that it is interesting to linguists to find out which types occur where. After receiving this information, they were asked to judge for twelve sentences with doubly marked subjects whether these could occur in their local dialect. These items only served to draw the participants' attention to their own dialect but are irrelevant as far as grammatical gender is concerned, so the responses to them were not analyzed.

'Information' condition. In this condition, participants were told that Standard Dutch distinguishes between neuter and common gender, which can be told apart on the basis of the definite singular article (*het* vs. *de*). They were also told that their substandard variety, like German but unlike Standard Dutch, distinguishes between three grammatical genders. Unlike the participants in the 'strategy' condition, the participants in the 'information' condition were not told that they could tell which nouns were masculine and which were feminine by looking at the determiners that these could take. That is, their attention was drawn to the grammatical gender system of their dialect, but they were not taught a metalinguistic strategy for finding out which words are neuter, masculine or feminine. It was also pointed out to them that the biological and grammatical genders of a noun need not coincide, using neuter *kind* 'child' as an example.

Afterwards, the participants in this condition were asked how many grammatical genders their dialect has: none, two (common, neuter), three (masculine, feminine, neuter) or "I don't know." They were also asked to identify the grammatical gender of the same ten nouns that served as training items in the 'strategy' condition. The response options were masculine, feminine, neuter, common and "I don't know;" no guiding questions were asked.

Rationale. By comparing the gender assignments of the 'strategy' participants to those of the 'no information' participants, one can gauge the influence of explicit metalinguistic instruction on the participants' transfer tendencies. Specifically, if the proportion of L1–L2 congruent responses is larger in the 'strategy' group than in the 'no information' group, then this would suggest that the explicit metalinguistic instruction that the first group received affects the participants' transfer tendencies. However, if an effect of explicit metalinguistic instruction on the participants' transfer tendencies were to be found, it would not be clear whether this was specifically the result of teaching them a strategy for telling masculine and feminine words apart: Perhaps merely pointing out to the participants (or reminding them) that their own dialect also has a three-way gender system already affects their L2 gender assignments. If an effect of explicit metalinguistic instruction on the participants' transfer tendencies were to be observed, a natural follow-up question would be to what extent this effect is related to the focusing of the participants' attention on the substandard variety's gender system or to the strategy that the instruction imparted. For this reason, some participants were told about their substandard variety's gender system but not about the gender identification strategy. By comparing the 'attention' group's transfer tendencies to those of the other two groups, it should be possible to tease apart the effects of merely drawing the participants' attention to a possible transfer base on the one hand and full-fledged metalinguistic instruction on the other, if indeed any such effects exist.

L2 German gender assignments. The participants were asked to pick a German gender-marked singular nominative definite article (masculine *der*, feminine *die*, neuter *das*) for 44 German nouns. The participants were told that *der* is used for masculine, *die* for feminine, and *das* for neuter nouns. The same nouns as in Vanhove's study (2017) were used; they are listed in the Results section below (Figure 3). All had Dutch cognates, and both the German nouns and their Dutch cognates were monosyllabic and monomorphemic and referred to inanimates. The nouns were presented individually and in a new random order for each participant. Unlike in Vanhove's study (2017), the Standard Dutch translations were shown underneath the German words. This was done in order to ensure that all participants associated the German nouns with the same Dutch cognates. Dialectal translations were not provided, since there is no commonly used orthography for the relevant dialects and since the pronunciation of some words varies between dialects. For the words used in this task, the Standard Dutch lexemes also occur in Denderstreek dialects and *tussentaal*, though sometimes side-by-side with a synonym (e.g., *sossis* for *worst* 'sausage').

Twenty-nine stimuli had common-gender cognates in Standard Dutch. In substandard varieties of Belgian Dutch, these are usually either feminine or masculine, though varieties may differ with respect to which are which. By comparing the participants' L2 gender assignments to these words with their responses on the following task ('Own use of gender-marked L1 noun phrases'), it could be determined to what extent their L2 gender assignments are congruent with the gender of these nouns' cognates in the participants' substandard varieties.

The fifteen other stimuli were not directly relevant to the research question. These were masculine (6), feminine (4), and neuter (5) nouns whose cognates were all neuter in both Standard Dutch and most substandard Belgian Dutch varieties. These stimuli were included to compare the participants' tendency to transfer the grammatical gender from substandard vs. Standard Dutch to L2 German: to the extent that the participants' gender assignments are congruent with the Standard Dutch neuter vs. common distinction but not with the substandard Dutch masculine vs. feminine distinction, this can be attributed to their transferring Standard but not substandard Dutch gender. On the basis of Vanhove's (2017) results, a strong preference for neuter assignments can be expected for these 15 stimuli. Moreover, the fifteen stimuli with neuter cognates allowed me to assess the participants' actual knowledge of L2 gender: participants with no knowledge of German gender would pick the correct gender in only about 5 out of 15 cases, be it through random guessing or systematic transfer. The number of correct responses to these 15 stimuli can therefore serve as a measure of the participants' knowledge of L2 gender. As shown in Figure 1, the participants' actual knowledge of German gender was limited, with most of them performing at chance on this task.

Own use of gender-marked L1 noun phrases. The substandard gender of some Dutch nouns varies within Flanders (De Schutter, van den Berg, Goeman, & de Jong, 2005; Pauwels, 1938; Vanhove, 2017). For instance, *knie* 'knee' is masculine in some varieties but feminine in others. Depending on the variety, then, the congruent L2 gender assignment can be masculine (*der*) or feminine (*die*). To account for such differences, the participants were shown gender-marked masculine substandard Dutch noun phrases with the cognates of all 29 German words that had common-gender Standard Dutch cognates and that were encountered in the previous task. Two examples of such noun phrases are *ne knie* 'a (m.) knee' (corresponding to the German stimulus *Knie*) and *ne stad* 'a (m.) city' (corresponding to *Stadt*). (Vanhove [2017] only included 8 of these words.) They were asked to indicate whether they themselves could use this combination of words. When participants indicated that they could use the masculine-marked article with the noun, it could be deduced that the noun is masculine for these participants. When they indicated that they could not use the masculine-marked article with the noun, it could be inferred that the noun is not masculine but feminine or possibly neuter.

Additionally, this task included 20 noun phrases with Standard Dutch determiners (the same as in Vanhove [2017]). Half of these were acceptable in Standard Dutch (e.g., *het veld* 'the field,' *de trein* 'the train'), and half were unacceptable (e.g., **het maand* instead of *de maand* 'the month'). These were included in order to identify participants who had limited knowledge of Standard Dutch gender or were not sufficiently focused on the task. Another six noun phrases featured substandard Dutch determiners combined with nouns whose cognates did not appear in the previous task (the same as in Vanhove [2017]). These will not be further analyzed here.

4. Results

In the 'own use' task, 45 out of 48 participants provided responses consistent with Standard Dutch for at least 18 out of 20 noun phrases with Standard Dutch articles. The three other participants were excluded from the analyses reported below. This left 16 participants in the 'strategy' condition, 15 in the 'information' condition, and 14 in the 'no information' condition.

I first established whether the metalinguistic instruction that the participants in the 'strategy' and 'information' conditions received succeeded in imparting factual and strategic knowledge about L1 substandard gender to these participants. Then I investigated to what extent the L1 standard neuter vs. common distinction was reflected in the L2 gender assignments. Lastly, I assessed how strongly metalinguistic instruction affected the participants' tendency to rely on L1 substandard

gender distinctions when assigning gender to L2 nouns. The data and computer code used for the analysis are available from https://osf.io/d7cu2/.

4.1. Metalinguistic instruction and knowledge about L1 substandard gender

When training the strategy for determining the substandard gender of Dutch nouns, 13 out of 16 participants in the 'strategy' condition labeled the nouns' gender consistently with their responses to the guiding questions in at least 9 out of 10 cases. These 13 participants' L1 substandard gender assignments were not only internally consistent, they were also largely consistent with each other: at least 12 of them agreed on the grammatical gender of each word. The three other participants applied the strategy consistently for only 4 or 5 items, with no sign of becoming more consistent towards the end of the task. This suggests that the metalinguistic instruction and feedback were not sufficiently clear for them. The results reported below do not change appreciably if the responses from these participants are disregarded, but in the graph with the main results further below (Figure 4), their data points are labeled separately.

The participants in the 'information' condition were told that their dialect distinguishes between three genders. Nevertheless, 7 out of 15 participants in this condition responded afterwards that it only distinguished between two genders (neuter and common). In the graph with the main results, their data points are labeled separately. Moreover, 5 out of the 7 participants who claimed that their dialect only distinguished between neuter and common labeled the gender of some of these words as feminine or masculine. Similarly, 1 out of the 8 participants who claimed that their dialect distinguished between feminine and masculine distinguished between neuter and common gender exclusively. While these inconsistencies underscore the difficulty of the metalinguistic task, there was some degree of agreement between participants on the substandard grammatical gender of the ten nouns. For the six non-neuter nouns, 7 to 10 out of 15 participants agreed on whether these were masculine or feminine; each non-neuter word was assigned to the common-gender category by four participants. For the four neuter words, 11 to 15 participants agreed that they were neuter.

In sum, the metalinguistic instruction seems to have been difficult to process for several participants, particularly in the 'information' condition, in which no examples were provided. In the 'strategy' condition, most participants were able to consistently apply the gender identification strategy if they were provided with guiding questions.
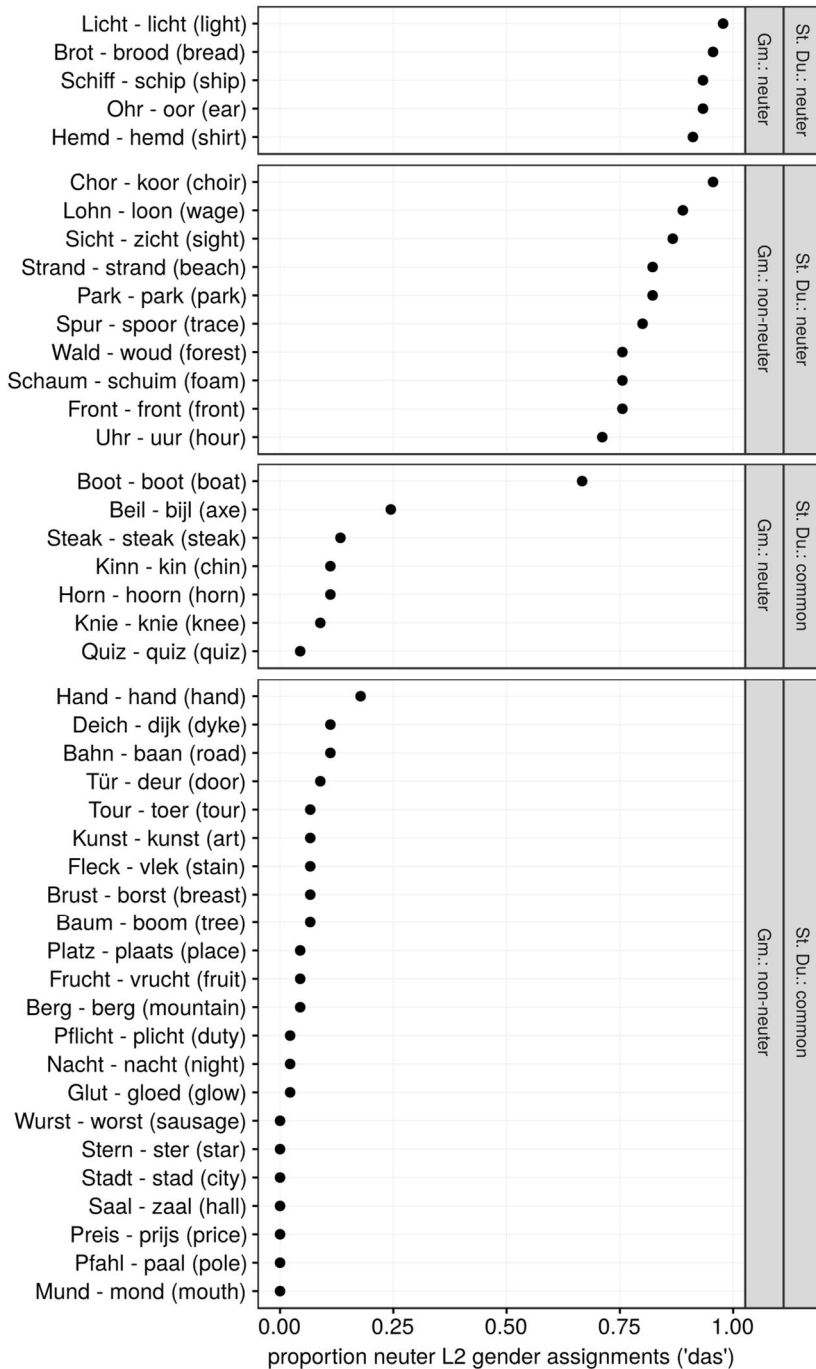
Figure 3 The proportion of neuter L2 German article choices (*das*) for each German noun. The nouns are split up by their L2 German gender and that of their L1 Standard Dutch cognate

4.2. Influence of the Dutch neuter vs. common distinction in L2 German gender assignments

Before investigating the influence of the L1 substandard masculine/feminine distinction on L2 gender assignments, let us take a look at the influence of the neuter/non-neuter distinction. Vanhove (2017) observed that both Dutch and Belgian speakers of Dutch were substantially more likely to assign neuter gender to a German noun if it had a neuter cognate in Dutch than when it had common Dutch cognate. The present study replicates this finding: when the German noun had a neuter cognate in Standard Dutch, the participants picked the neuter article *das* in 86% of cases; when it had a common-gender cognate, *das* was picked in only 8% of cases. These numbers do not vary substantially between the three conditions. Figure 3 shows the proportion of neuter article choices for each German noun and reveals a near-categorical distinction between nouns with neuter cognates and those with common cognates. As in Vanhove's (2017) study, the sole exception to this rule is *Boot*, to which most participants correctly assigned the neuter article, perhaps owing to the 1981 film *Das Boot*. For the inferential analysis, the responses (neuter *das* vs. other) were fitted in a generalized (logistic) linear mixed-effects model with by-participant and by-item random intercepts, and the cognates' Standard Dutch gender (neuter vs. common; coded as 0.5 and -0.5) as a fixed effect and a by-participant random slope. The estimated effect size for the fixed effect of Standard Dutch gender was 5.9 ± 0.57 (estimated $\beta \pm$ standard error, in log-odds). This is appreciably larger than the congruency effect in Vanhove (2017; 3.2 ± 0.3 log-odds), which may be due to differences in actual L2 gender knowledge as well as the fact that the participants in the present study were shown the stimuli's Dutch cognates.

4.3. Influence of metalinguistic instruction on L2 German gender assignments

The expectation was that participants who were taught about the grammatical gender system of their substandard variety and how they could identify the substandard grammatical gender of Dutch nouns would rely to a greater extent on this distinction than other participants. To test this hypothesis, the participants' article choices for the 29 German nouns with common gender were coded as either congruent or incongruent with the gender of the corresponding Dutch cognates in the participants' substandard variety. If a participant claimed to use a substandard masculine article with the Dutch cognate (e.g., *ne knie* 'a knee'), then the choice for the masculine article *der* for German *Knie* was considered crosslingually congruent and feminine *die* and neuter *das* incongruent; if the participant claimed not to use *ne knie*, then the choice for feminine *die* for German

Knie was considered crosslingually congruent and masculine *der* and neuter *das* incongruent. (In principle, if participants claim not to use *ne(n)* with one of these Dutch nouns, it may be neuter rather than feminine for them. Specifically, *bijl* 'axe' is known to be neuter in some Denderstreek dialects. When neuter *das* responses are disregarded, the overall congruency numbers are higher, but the comparisons between conditions are not affected.)

Overall, when the participants claimed to use a substandard masculine article with a Dutch noun, they chose masculine *der* as the article for its German cognate in 50% of cases (371 of 746), feminine *die* in 42% (311/746), and neuter *das* in 9% (64/746). When the participants claimed not to use a substandard masculine article with a Dutch noun, they chose masculine *der* as the article for its German cognate in 26% of cases (144 of 559), feminine *die* in 66% (370/559), and neuter *das* in 8% (45/559). In total, 57% of the German article choices were crosslingually congruent (741 out of 1305). The fact that there are more congruent than incongruent article choices overall may suggest some influence from substandard Belgian Dutch. Vanhove (2017), in a post-hoc analysis in which a third of the participants were disregarded, found such a congruency effect between the Belgian participants' L1 use of masculine-marked noun phrases and their L2 gender assignments for the 8 cognate pairs for which L1 own use data were available (estimated $\beta \pm$ SE: 0.9 ± 0.4 log-odds). The present study has own use data for all 29 stimuli, and a similar analysis ran on them (using the data from all three conditions) finds a comparable congruency effect (1.1 ± 0.35 log-odds; 0.74 ± 0.35 log-odds if only the same 8 stimuli are considered). This degree of L1 substandard–L2 congruency is markedly lower than that of L1 standard–L2 congruency, and while it may constitute some evidence for cross-linguistic influence, it is difficult to know without a (Northern Dutch) control group: in Vanhove's (2017) study, German gender assignments by Dutch and Belgian participants were correlated, even though the Dutch participants were not familiar with substandard Belgian Dutch gender (his Figure 7). This suggests that this fairly modest degree of crosslingual congruency in gender assignments need not necessarily be caused by transfer from the substandard (see Jarvis, 2010, on the utility of comparing groups with different linguistic backgrounds in transfer research).

More importantly for the present research question, 63% of the German article choices in the 'strategy' condition were crosslingually congruent (291 out of 464), compared to 52% in the 'information' condition (225 out of 435) and 55% in the 'no information' condition (225 out of 406). Figure 4 shows the proportion of congruent gender assignments per participant and does not reveal a systematic difference between the three conditions. Figure 5 shows the same data per item, similarly not revealing any systematic differences. This is also borne out by the inferential analysis, for which the data were fitted in a generalized

(logistic) linear mixed-effects model with crosslingual congruity as the outcome, the metalinguistic instruction condition as a fixed effect, and by-participant and by-item random intercepts. According to this analysis, the estimated effect sizes (estimated β ± standard error) for the 'information' and 'strategy' condition relative to the 'no information' condition were -0.17 ± 0.36 and 0.43 ± 0.36 (in logodds), respectively. These effect sizes suggest a small, possibly negligible, effect of metalinguistic instruction on substandard influence in L2 gender assignments.
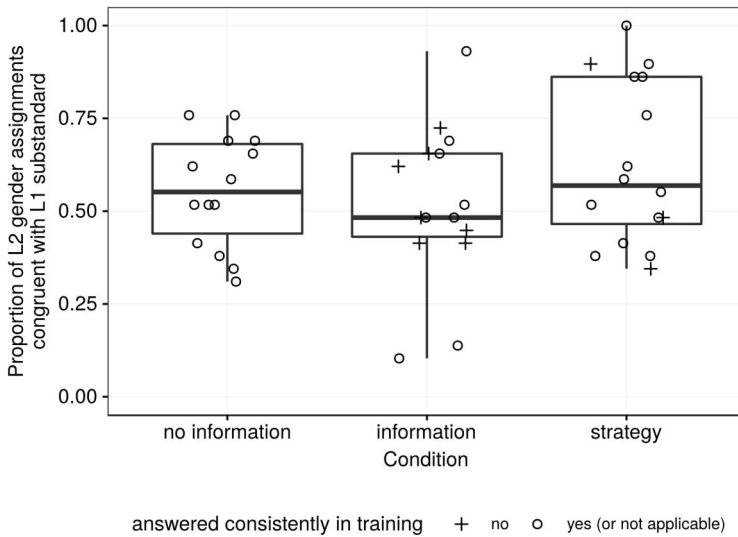

Figure 4 The proportion of L2 German article choices that were crosslingually congruent with the gender of the Dutch cognate of the German noun in the participants' substandard varieties per participant. Data points from participants in the 'information' and 'strategy' whose responses during training were inconsistent with the metalinguistic instruction are shown as crosses

5. Discussion

I asked how metalinguistic knowledge about an L1 feature affects crosslinguistic influence with respect to this feature. The feature in question was the three-way adnominal gender system of substandard Belgian Dutch varieties, which is arguably similar to the three-gender system of German but which takes a back seat to Standard Dutch's two-gender system in L2 German gender assignments by Belgian speakers of Dutch. To investigate the role of L1 metalinguistic knowledge in crosslinguistic influence, I experimentally induced variation between participants in terms of their knowledge of L1 substandard gender and found that this influenced substandard–L2 congruency in gender assignment weakly if at all.
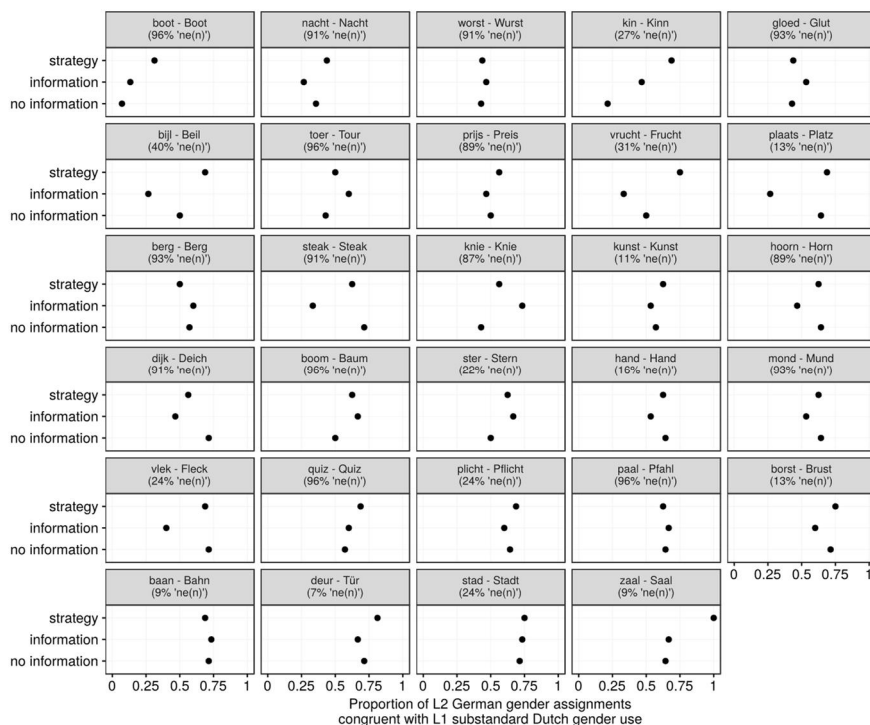
Figure 5 The proportion of L2 German article choices that were crosslingually congruent with the gender of the Dutch cognate of the German noun in the participants' substandard varieties, split up by the condition to which the participants were assigned. Each panel contains the percentage of participants that claimed to use the L1 substandard masculine article *ne(n)* in conjunction with its cognate. For instance, only 9% claimed to use *ne* with *zaal* 'hall,' but 96% claimed to use *ne* with *paal* 'pole'

In addition to the obvious conclusion that metalinguistic knowledge about L1 substandard gender is not a major factor in Flemings' L2 German gender assignments, an alternative explanation is that the metalinguistic instruction provided to the participants was not clear enough or that it was not practiced sufficiently. Indeed, three out of 16 participants did not seem to have fully understood the instructions. However, even participants who had demonstrably understood the strategy for identifying the substandard gender of Dutch nouns showed a considerably weaker reliance on substandard than on standard distinctions (see Figure 4). This is all the more noteworthy in view of the great potential for expectancy effects in the data collection: directly after receiving metalinguistic instruction and training about their dialect, the participants were asked to assign gender to German nouns without being put under time pressure.

Had a stronger substandard–L2 congruency effect or metalinguistic knowledge effect been found, it would have been reasonable to counter that this reflected nothing but task demands and might not be observed in more natural contexts. Despite a research context that arguably encouraged stronger effects, these were not observed. Perhaps an experiment in which the metalinguistic strategy is practiced more extensively would show more favorable results, but for now, I submit that the obvious conclusion – that metalinguistic knowledge about L1 substandard gender is not a major factor in Flemings' L2 German gender assignments – is apt.

But if metalinguistic knowledge is not a major factor, what is? One recent suggestion is that predominantly spoken varieties are dispreferred as source languages in crosslinguistic influence in the written mode (Neuser, 2017). This suggestion is relevant inasmuch as substandard Dutch is mostly (though not exclusively) confined to the spoken mode, whereas the gender assignments were tested in the written mode. On the hypothesis that substandard Dutch is dispreferred as a source variety in the written mode, the prediction would be that it may exert a stronger influence in the spoken mode (e.g., in spoken word recognition).

In addition to Neuser's suggestion, the two explanations discussed in the introduction, namely sociolinguistic markedness and psychotypology, still seem plausible. The problem with the latter explanation in particular lies in testing it. For the most part, researchers working on crosslinguistic influence, while cognizant of the importance of learners' perceptions, can generate falsifiable predictions by equating psychotypology with actual language genealogy and typology in practical terms (Ringbom, 2007, p. 8; similarly, see Odlin, 2014, or research on Rothman's [2015] Typological Primacy Model). When the potential source languages are closely related both to each other and to the target language, making such predictions becomes more difficult. Descriptive work involving potential source languages that are highly similar overall but that differ with respect to their similarity to the target language in a specific feature may be useful in underscoring the role of factors in language transfer other than genealogy and typology proper.

6. Conclusion

This study did not find evidence that Flemings' metalinguistic knowledge about L1 substandard gender distinctions affects the likelihood with which they transfer these distinctions to a closely related L2, viz., German. Future studies in a similar vein may wish to intensify the metalinguistic instruction and test the learners in the spoken modality (cf. Neuser's [2017] suggestion). Taking a broader perspective, however, the question at hand is not so much why Flemings do not rely strongly on their substandard gender distinctions when assigning gender to L2 German nouns. Rather, it is to what degree popular explanations for the (near-)absence

of crosslinguistic influence can be put to the test. Psychotypology in particular is a commonly cited factor in transfer research, but since it is nearly always equated with actual relatedness or typology in practice, it loses its predictive power when the languages in contact are very closely related. Further descriptive studies on language transfer with closely related source languages as well as conceptual and methodological reflections on how psychotypology can best be operationalized seem in order.

Acknowledgements

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