

## Chapter 18

# The interpretation of Dutch direct speech reports by Frisian-Dutch bilinguals

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Frisian and Dutch both have a direct speech reporting construction and an indirect speech reporting construction with verb final word order. Frisian also has an additional indirect speech reporting construction, the embedded verb-second construction, which resembles direct speech in many respects. We investigated whether Frisian-Dutch bilinguals show negative transfer in their interpretation of direct speech in Dutch. We hypothesized that Frisian-Dutch bilinguals would rate an infelicitous embedded V2 construction in Dutch as higher than Dutch monolinguals. Further we hypothesized that when tested on their interpretation of direct speech reports in Dutch, Frisian-Dutch bilinguals would make more errors than their monolingual Dutch counterparts. Our results support both hypotheses.

### 1 Introduction

Consider two different reports about what Jan said in Dutch and Frisian.

- (1) a. Jan<sub>i</sub> zei: “Ik<sub>i</sub> ben ziek.” (Dutch)  
b. Jan<sub>i</sub> sei: “Ik<sub>i</sub> bin siik.” (Frisian)  
‘Jan said: “I am sick.”’
- (2) a. Jan<sub>i</sub> zei dat hij<sub>i</sub> ziek is.” (Dutch)

- b. Jan<sub>i</sub> sei dat hy<sub>i</sub> siik is. (Frisian)  
'Jan said that he is sick.'

Example (1) is a direct speech report, and Jan's words are repeated from his perspective. The pronoun *ik* 'I' therefore refers to the reported speaker, Jan, and not to the actual reporting speaker. Example (2) is an indirect speech report. The reporting speaker presents the content of what Jan said from her current perspective, referring to the absent Jan with the third-person pronoun *hij/hy* 'he'. In Dutch and Frisian, direct speech reports of assertions have verb-second word order (see 1a and 1b) and lack a complementizer. Indirect speech reports include a subordinate clause with verb-final word order and the obligatory complementizer *dat* 'that' (see 2a and 2b). Looking at these two examples alone it seems that there are clear grammatical and semantic markers of direct and indirect speech reports. However, Frisian has an additional indirect speech reporting construction, the embedded V2 construction shown in Example (3):

- (3) a. Jan<sub>i</sub> sei, hy<sub>i</sub> is siik. (Frisian)  
b. \*Jan<sub>i</sub> zei, hij<sub>i</sub> is ziek. (Dutch)  
'Jan said he is sick.'

This embedded V2 reporting construction has verb-second (V2) word order and no complementizer, like direct speech (de Haan 2010; Zwart 1997). However, the pronoun *hy* 'he' in (3) refers to Jan from the perspective of the reporting speaker. This means that with respect to the interpretation of pronouns and other indexicals, the embedded V2 construction in 3 is similar to indirect speech reports like (2).

Thus in Dutch, direct and indirect speech are clearly distinct (Köder 2016). But in Frisian – similar to other Germanic languages like German, and Danish – the embedded V2 construction combines direct speech features (V2 word order, absence of a complementizer) with indirect speech features (interpretation of pronoun), and can therefore be considered a mixed type of report in-between canonical direct and indirect speech (cf. Evans 2013). This means that features that in Dutch unambiguously distinguish direct speech from indirect speech appear in Frisian in an indirect speech reporting construction.

Because almost all Frisian speakers in the Netherlands are Frisian-Dutch bilinguals, we hypothesize that experience with Frisian will cause Frisian-Dutch bilinguals to display difficulties when understanding direct speech reports in Dutch compared to non-Frisian native speakers of Dutch. We experimentally tested this hypothesis and found that Frisian-Dutch speakers show significantly higher error rates in direct speech interpretation than their non-Frisian peers. Further, we found a significant difference in their evaluation of sentences of the three different speech reporting types.

## 2 Dutch and Frisian

Dutch and Frisian are two closely related languages that both have official status in the Netherlands. Most Frisian speakers live in the northern Dutch province of Friesland. Even though Dutch is the dominant language in education, administration and the media, 74% of the population of Friesland are Frisian-Dutch bilinguals, and the majority consider Frisian to be their first language (Hanssen et al. 2015; Province Fryslân, 2015). Due to intense language contact between the two languages, modern Dutch and Frisian exhibit many lexical, grammatical and phonetic similarities (Gooskens & Heeringa 2004; Heeringa & Nerbonne 1999). However, Frisian's larger inventory of constructions for reporting speech is one of the grammatical differences.

In this study, we investigate whether the difference in available constructions for reporting speech and thought in Frisian influence how Frisian-Dutch bilinguals interpret reported speech in Dutch. Previous research on language transfer in bilingual contexts indicates that such effects are possible (Nagy, McClure & Mir 1997; Müller 1998; Muysken 2000), but as far as we know there are no studies on the effect of language transfer on speech reporting.

## 3 Direct speech and indirect speech in Dutch

Previous studies have shown that speakers of Dutch find pronouns in direct speech more difficult to interpret than in indirect speech, due to the required perspective shift from reporting speaker to reported speaker (Köder, Maier & Hendriks 2015). Dutch children up until the age of twelve show difficulties interpreting direct speech reports, often interpreting pronouns in direct speech as if they were in indirect speech (Köder & Maier 2016). One interpretation of these findings is that Dutch children have a less clear-cut direct-indirect distinction than Dutch adults. Similarly, Frisian-Dutch adults might have a less rigid direct-indirect distinction in their Dutch grammar than non-Frisian Dutch adults due to a possible interference from Frisian. If this is correct, Frisian-Dutch bilinguals should make more mistakes than Dutch monolinguals when interpreting pronouns in Dutch direct speech, confusing it with the indirect embedded V2 construction. Furthermore, Frisian-Dutch bilinguals should rate the (ungrammatical) embedded V2 construction in Dutch as more acceptable than non-Frisian speakers of Dutch. To test these hypotheses, we tested Frisian-Dutch bilinguals and Dutch monolinguals with the Speech Report Experiment (Köder, Maier & Hendriks 2015) and asked a subset of the participants to rate the acceptability of speech reports on a questionnaire.

## 4 Method

### 4.1 Participants

36 Frisian-Dutch bilinguals ( $M_{age} = 28.8$ ,  $SD = 13.6$ ) and 115 Dutch monolinguals ( $M_{age} = 24.3$ ,  $SD = 8.6$ ) participated in the Speech Report Experiment. We classified

participants as Frisian-Dutch bilingual if they indicated proficiency in both Frisian and Dutch (among other languages). The group of Frisian-Dutch bilinguals therefore includes both early and late bilinguals with different levels of proficiency in speaking, comprehending and writing Frisian. We will use the term Dutch monolinguals to describe participants who listed only Dutch (among other languages). A subset of the participants (25 Frisian-Dutch bilinguals, 9 Dutch monolinguals) filled in a questionnaire including acceptability judgments.

## 4.2 Procedure

The Speech Report Experiment and the questionnaire were presented online. Instructions for the questionnaire were presented in writing, while instructions for the speech report test were presented auditorily. The task was completed individually and took about 10 minutes in total to complete.

## 4.3 Speech Report Experiment

The Speech Report Experiment is designed as an interactive game called *Who gets the ball?* The experiment consists of short animations that feature three animals (a dog, an elephant and a monkey) interacting with each other. For instance, the elephant walks over to the monkey and whispers into his ear who gets the football (Fig. 1a). Participants heard only an incomprehensible whispering sound. The monkey in turn walks to the dog and reports to him what the elephant has said using either a direct or indirect speech report (Fig. 1b). If the monkey uses for instance the direct speech report *Elephant said: "I get the football"*, the correct referent of the pronoun *I* is the speaker of the reported speech context, i.e., the elephant. In contrast, in an indirect speech report such as *Elephant said that I get the football*, the referent of *I* is the reporting speaker, i.e., the monkey. After each speech report, participants had to click on the animal that they thought got the object (Fig. 1c).

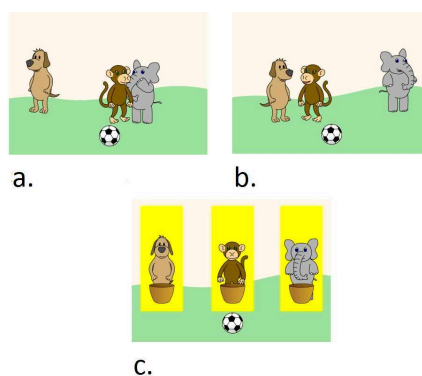


Figure 1: Example screenshots from a test item in the Speech Report Experiment.

The speech reports contain either a first-person (*ik* ‘I’), second-person (*jij* ‘you’) or third-person (*hij* ‘he’) pronoun (see Example (4a)). In total, we presented 30 test items in random order, five for each combination of report type (direct speech, indirect speech) and pronoun (*ik, jij, hij*).

- (4) a. Olifant zei: “Ik/Jij/Hij krijg(t) de voetbal”.  
‘Elephant said: “I/You/He get(s) the football”.’  
b. Olifant zei dat ik/jij/hij de voetbal krijg(t).  
‘Elephant said that I/you/he get(s) the football.’

Recall that direct and indirect speech reports in Dutch are clearly distinct: direct speech reports have verb-second word order in the report; indirect speech sentences have verb-final word order and include the complementizer *dat* ‘that’. In addition, our direct speech stimuli have an 800 ms break between reporting clause and quotation. For more detailed information on the entire procedure please consult Köder and Maier (2016).

#### 4.4 Acceptability judgments

After completing the speech report test, a subset of participants was asked to rate the acceptability of speech reports on a five-point Likert scale (totally agree, agree, neutral, disagree, totally disagree). Participants were presented with an original utterance (e.g. *Jan: I go to the store*) and were then asked to assess whether a particular sentence (e.g., *Jan said: “I go to the store”*) is a correct report of that utterance. We presented one Dutch direct speech report (5), one Dutch indirect speech report with verb-final word order (6) and one ungrammatical Dutch embedded V2 report (7).

- (5) Jan zei: “Ik ga naar de winkel.” (Dutch)  
‘Jan said: “I go to the store.”’  
(6) Bert<sub>i</sub> zei, hij<sub>i</sub> speelt goed voetbal. (Dutch)  
‘Bert<sub>i</sub> said he<sub>i</sub> plays soccer well.’  
(7) Anna zei dat ze niet van vis houdt. (Dutch)  
‘Anna said that she does not like fish.’

Frisian-Dutch participants were given three additional speech reports in Frisian:

- (8) Pyt sei: “Ik bin it paad bjuster.” (Frisian)  
‘Pyt said: “I have lost track.”’  
(9) Abe<sub>i</sub> sei, hy<sub>i</sub> hat in gles pakt. (Frisian)  
‘Abe<sub>i</sub> said he<sub>i</sub> has taken a glass.’  
(10) Froukje sei dat se op sinneskynwaar hoopt. (Frisian)  
‘Froukje said that she hopes for sunny weather.’

## 5 Results

### 5.1 Speech Report Experiment

Figures 2 and 3 show the accuracy of pronoun interpretation for Frisian-Dutch bilinguals and Dutch monolinguals. Figure 2 shows results for direct speech and Figure 3 shows results for indirect speech.

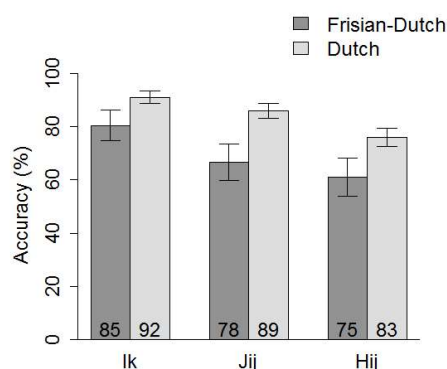


Figure 2: Percentage of correct pronoun interpretations in direct speech of Frisian-Dutch bilinguals and Dutch monolinguals. Error bars indicate 95% confidence intervals.

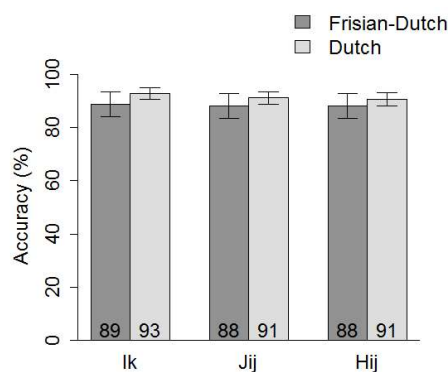


Figure 3: Percentage of correct pronoun interpretations in indirect speech of Frisian-Dutch bilinguals and Dutch monolinguals. Error bars indicate 95% confidence intervals.

We analyzed the accuracy data with mixed-effects logistic regression modeling with the software R (version 3.2.5). Step by step, we added fixed-effects factors and interactions and checked whether they improve the model fit significantly, as indicated

by an Akaike Information Criterion (AIC) decrease of more than 2. The best fitted model includes random intercepts for subjects and a three-way interaction between the fixed-effect factors report type (direct, indirect), pronoun (*ik*, *jij*, *hij*) and language (Frisian-Dutch, Dutch). The index of concordance of the model is 0.91, which indicates that it has predictive power. In direct speech, participants made more mistakes when interpreting the third-person pronoun *hij* than the first-person pronoun *ik* ( $\beta = 1.64$ ,  $z = 7.84$ ,  $p < .001$ ) and the second-person pronoun *jij* ( $\beta = 0.97$ ,  $z = 5.14$ ,  $p < .001$ ). The model already indicates that the language of the participants influences their performance on the Speech Report Experiment. We performed a multiple comparison analysis (Tukey contrasts) to find out in which respects Frisian-Dutch bilinguals differ from Dutch monolinguals in their interpretation of Dutch direct and indirect speech reports.

The results, reported in Table 1, show that both Frisian-Dutch and Dutch speakers made significantly more mistakes in direct than indirect speech. Comparing the performance of Frisian-Dutch bilinguals and Dutch monolinguals, we find that Frisian-Dutch bilinguals made more mistakes than Dutch monolinguals in direct speech, but not in indirect speech interpretation.

Table 1: Multiple comparisons of means (Tukey contrasts).

Linear Hypotheses	Estimate	SE	z-value	p-value
Dutch indirect – Dutch direct = 0	0.94	0.13	7.37	<0.001
Fris.-Dutch indirect – Fris.-Dutch direct = 0	1.65	0.19	8.54	<0.001
Fris.-Dutch indirect – Dutch indirect = 0	-0.56	0.46	-1.31	0.575
Fris.-Dutch direct – Dutch direct = 0	-1.27	0.44	-2.88	0.016

## 5.2 Acceptability judgments

The results of the questionnaire indicate that Frisian-Dutch bilinguals and Dutch monolinguals agreed that direct speech reports ( $M = 4.68$ ,  $SD = 0.77$ ) and indirect verb-final constructions ( $M = 4.74$ ,  $SD = 0.51$ ) are acceptable in Dutch, with no significant differences between the groups. As expected from the literature, all participants judged the Dutch embedded V2 construction mostly as unacceptable ( $M = 1.88$ ,  $SD = 1.14$ ). However, Frisian-Dutch bilinguals tended to rate the Dutch embedded V2 construction as more acceptable than Dutch monolinguals ( $t(31) = 1.92$ ,  $p = 0.06$ ). While none of the Dutch monolinguals found the Dutch embedded V2 construction acceptable ( $M = 1.44$ ,  $SD = 0.53$ ), four Frisian-Dutch bilinguals agreed or fully agreed that it is acceptable ( $M = 2.04$ ,  $SD = 1.27$ ).

The acceptability rating of the Frisian speech reports shows that most Frisian-Dutch bilinguals found the embedded V2 construction in Frisian acceptable ( $M = 2.88$ ,  $SD = 1.72$ ). However, the embedded V2 score is significantly lower than that of Frisian direct speech ( $t(28) = -5.51$ ,  $p < .001$ ) and Frisian verb-final indirect speech

( $t(45) = -3.45, p = .001$ ).

## 6 Discussion and conclusions

Our findings support our first hypothesis that Frisian-Dutch bilinguals make more mistakes in Dutch direct speech interpretation than non-Frisian Dutch speakers. We suggest that this is due to the available embedded V2 construction in Frisian. This construction resembles direct speech by having V2 word order and no complementizer, but requires pronouns to be interpreted from the reporting speaker's perspective as in indirect speech. The fact that Frisian-Dutch participants did not also make significantly more errors than Dutch participants in indirect speech indicates that they are not just generally more confused by speech reports in Dutch, but instead exhibit a more specific interference from the Frisian indirect embedded V2 construction.

Consistent with our second hypothesis, Frisian-Dutch bilinguals also rated the ungrammatical Dutch embedded V2 construction as more acceptable than Dutch monolinguals in the questionnaire. This suggests that Frisian-Dutch participants were unsure if the (ungrammatical) embedded V2 construction was possible in Dutch. We expect similar effects with other bilinguals e.g., German-Dutch, Danish-Dutch bilinguals because these languages have a similar embedded V2 construction.

## 7 Future research

Our questionnaire only used one item for each speech reporting type. A useful follow-up should include different version of multiple items in all three reporting types, and include control items of constructions that are unacceptable. Actually, colloquial Dutch seems to allow an embedded verb-second construction like that in (6) (see Zwart 1997), but our Dutch participants did give this item the lowest rating. We cannot judge whether this rating is evidence of marginal acceptability or actual error unless we also include such items for comparison.

We also only tested Frisian-Dutch speakers in Dutch, but it would also be interesting to investigate how Frisian speakers interpret all three constructions in Frisian. If the similarity between the embedded V2 construction and direct speech is the cause of the errors, then we would also expect to find that Frisians confuse direct and indirect embedded V2 speech reports in Frisian as well. This is a natural topic for further study.

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