

# INTERPRETATION OF SINGULAR PERSONAL PRONOUNS IN DIRECT AND INDIRECT SPEECH. A COMPARISON BETWEEN DUTCH AND DUTCH-FRISIAN SPEAKERS

Bachelor project

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**Abstract:** In Dutch, two ways of reporting speech exist: direct speech and indirect speech. The closely related language Frisian has a third reporting clause: Embedded V2 (EV2). The EV2 clause is syntactically similar to direct speech, but pronouns in EV2 must be interpreted like they should in indirect speech. This leads to the hypothesis that Dutch-Frisian (bilingual) speakers should make more mistakes whilst interpreting singular personal pronouns in Dutch direct speech than Dutch speakers. Thus there is negative language transfer for Dutch on Frisian. An experiment is done with both Dutch-Frisian and Dutch speakers to verify this hypothesis. Results confirmed Dutch-Frisian speakers make more mistakes whilst interpreting singular personal pronouns in Dutch direct speech than Dutch monolingual speakers. However, Dutch-Frisian speakers also make more - although less significant - mistakes whilst interpreting singular personal pronouns in Dutch indirect speech than Dutch monolingual speakers. This could be due to general confusion of Dutch-Frisian speakers in the experiment.

## 1. Introduction

According to a study dating from 2007, as much as 74 percent of the people in Fryslân - the only bilingual province of the Netherlands - can speak Frisian, and 94 percent can understand it (Province Fryslân, 2007). There have been many and extensive studies about language transfer in such bilingual contexts (Nagy, McClure, & Mir, 1997; Müller, 1998; Muysken, 2000). But none of which studied the effects of language transfer in interpretation of speech.

From the results of an experiment very similar to this one, it has been shown that interpreting singular personal pronouns in direct speech is harder than in indirect speech (Köder, 2013). Because Frisian bilinguals are early child bilinguals speaking Frisian and Dutch regularly we expect interference from Frisian in Dutch (de Haan, 2010, p. 300). We investigate this specifically by testing for difficulties in the interpretation of pronouns in Dutch direct speech for Dutch-Frisian bilinguals.

### 1.1. Direct and indirect speech

Information can be communicated from different viewpoints. In Dutch, you can either cite the person:

- (1) Jan<sub>i</sub> zei, "Ik<sub>i</sub> ben ziek." (Dutch)  
'Jan said, "I am sick."'

Or you could use your own words, for example:

- (2) Jan<sub>i</sub> zei dat hij<sub>i</sub> ziek is. (Dutch)  
'Jan said (that) he is sick.'

These two ways of communicating information said by Jan are called respectively direct (1) and indirect (2) speech. When using direct speech, the words originally said by Jan are literally reproduced whilst changing the voice to indicate a citation. When using indirect speech, the words are interpreted and put into the speaker's own words and perspective.

### 1.2. Embedded V2 clause

Some languages have additional clauses available for reporting speech. Frisian is one of them. Lets look at an example of this additional clause:

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

This clause is also known as the Embedded V2 clause (EV2) (de Haan, 2010, p. 126-128).

There are two minor differences with direct speech to consider. First, the quotation marks are missing. Second, the pronoun used in the EV2 clause is – given the same context – equal to the

pronoun used in indirect speech. And since it is unclear whether there is a deliberate change of the speaker's voice and the context does not give a clue about whom a pronoun is referring to, Dutch-Frisian speakers may have difficulties distinguishing indirect speech with an EV2 clause from direct speech.

Next to those two minor differences, direct speech is very similar to the EV2 clause because the *that* complementizer in indirect speech, whilst mandatory in Dutch, is optional in Frisian. As can be seen in example (3), the word order of the EV2 clause is quite similar to direct speech, but it needs to be interpreted as indirect speech. Dutch does not have a similar clause. Hence, for Dutch-Frisian speakers it should be more difficult distinguishing between the EV2 clause and direct speech compared to Dutch monolinguals.

### 1.3. Research question

Given the existence of the EV2 clause in Frisian, sharing many similarities with direct speech whilst being interpreted as indirect speech, leads to the hypothesis that there is a negative language transfer of Frisian to Dutch. Because the interpretation of personal pronouns differs between direct and indirect speech, Dutch-Frisian speakers should encounter difficulties when interpreting personal pronouns in direct speech in Dutch. This leads to the hypothesis that Dutch-Frisian speakers should make more errors when interpreting singular personal pronouns in Dutch direct speech than Dutch speakers. Thus Dutch-Frisian speakers should make more errors when interpreting these pronouns in Dutch direct speech than Dutch speakers.

## 2. Method

In order to measure the differences between Dutch and Dutch-Frisian speakers when interpreting Dutch direct speech, an online experiment was conducted.

### 2.1. Participants

34 People participated in the experiment: 13 Dutch monolinguals and 21 Dutch-Frisian bilinguals. The participants were recruited from several sources. Most participants were students from the University of Groningen. Dutch-Frisian

speakers were offered a compensation of three euros for their participation. The compensation was offered because of the scarcity of Dutch-Frisian participants.

### 2.2. Materials

The experiment was presented online, and only required a Chromium-based browser and sound. The participants were not supervised during the experiment, they did it individually on their own. The experiment contained 48 items and took the average participant about 10 minutes.

### 2.3. Procedure

The experiment consisted of two parts. A comprehension test, followed by a questionnaire.

#### 2.3.1 Comprehension test

In the comprehension test participants were asked to interpret singular personal pronouns from given speech after watching a short animated interaction. All of the speech in the experiment was spoken in Dutch. The test involved looking at animations, listening to speech, and making choices. This comprehension test consisted of four parts. Some relevant screenshots have been taken of this experiment for the sake of visual clarification, shown in Figure 1. In the following paragraphs the experiment will be explained stepwise.

First, an introduction to the experiment was shown in which 3 characters were introduced (Figure 1a): Monkey, Dog, and Elephant. And 18 items, which were commonly known objects like an airplane, a book, or sunglasses.

In the second part, the participant was asked to click on the right character after hearing their respective name. This was to check the ability of the participant to identify the characters correctly, and to ensure they knew how to make a choice.

After these two introductory parts, the participants had to interpret singular personal pronouns in Dutch speech. They had to click on the character whom the given pronoun was referring to. Three singular personal pronouns were used: *ik* (I), *jij* (you) and *hij* (he). These are respectively first, second and third person pronouns. The third part of the comprehension test was a no-report condition. In this condition

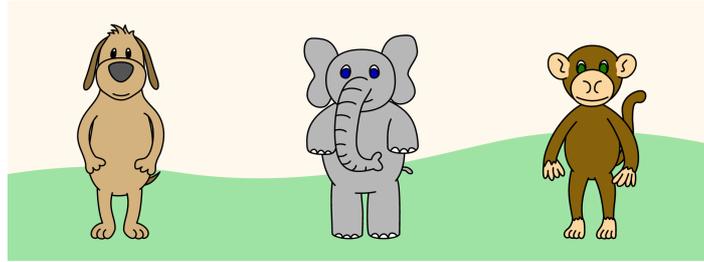


Figure 1a: Three characters, from left to right: Hond (Dog), Olifant (Elephant) and Aap (Monkey).

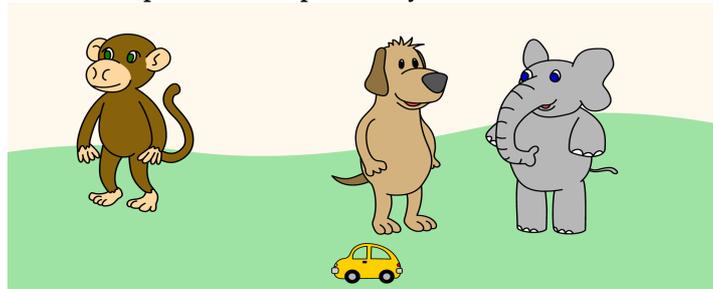


Figure 1b: No-report condition. For example, dog says: "you get the car."

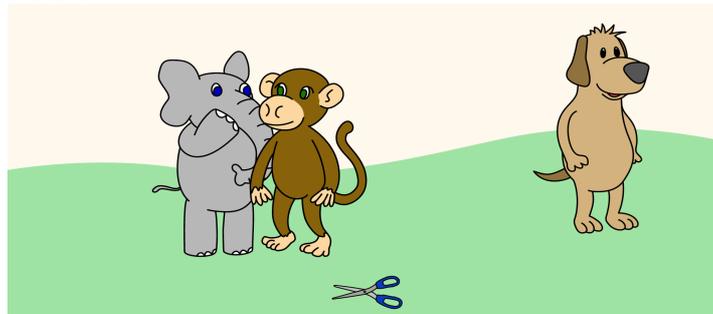


Figure 1c: Direct/indirect speech condition, stage 1: whispering.

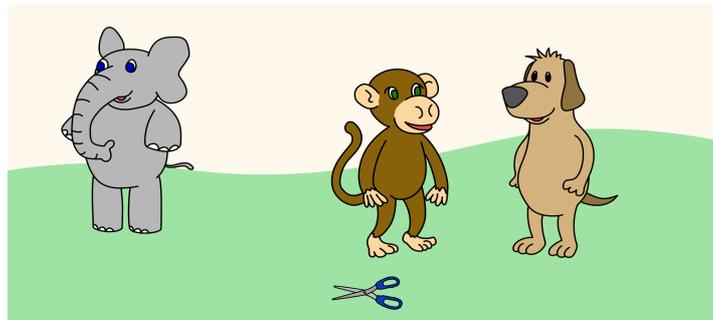


Figure 1d: Direct/indirect speech condition, stage 2: reporting speech. For example, given the direct speech condition the monkey could say: 'Olifant said, "you get the scissors."' Whilst given the indirect speech condition the monkey would then say: 'Olifant said that I get the scissors.'



Figure 1e: Selection of the correct answer, assigning an object to a character's basket.

Figure 1: Animated and interactive online experiment; requiring mouse input and sound/browser output.

no speech was reported, but the actual speech was given directly. For example:

- (4) Jij krijgt de auto. (Dutch)  
'You get the car.'

Thus if Elephant interacted, as demonstrated in Figure 1b, with Dog and said the example sentence (4). Then the participant was to choose Dog, because Dog was to get the car as stated by Elephant. If the participant chose to click Monkey or Elephant instead, then this would have counted as an error.

Fourth, were randomly presented items of direct and indirect speech. In these two conditions (direct and indirect speech), a character moved to another and whispered something which was inaudible to the participants (Figure 1c). Then the addressee of the whispered actual speech would move to the other character and report what the character just heard (Figure 1d). The participant then needed to choose the character whom the participant thought was being referred to by the given pronoun (Figure 1e). For a list of experimental items, see *Appendix A*.

### 2.3.2 Questionnaire

The questionnaire asked participants about the gender, age, education, and language among other things. After these basic questions, some additional questions were shown. The goal was twofold. First to assess the ability of the participant to speak Frisian. Thus, how well and often the participant speaks Frisian, and whether the participant is able to write Frisian. Second, to assess the interference of Dutch on Frisian for that specific participant. To do this, some sentences, heavily influenced by the Dutch language and grammatically incorrect Frisian, were shown after which the participant had to rate the correctness of that sentence.

The participants were also asked to rate the correctness of three example sentences in Dutch, which each had a different form: direct speech, indirect speech, and an EV2 clause. The example sentences had to be given a score using a scale ranging from 'totally agree' (4) through to 'totally disagree' (0), indicating whether a participant thinks the sentence can actually be

used in the given language. The example sentences are shown below.

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

Also, only Dutch-Frisian participants were given three additional and different example sentences of reported speech in the Frisian language. Those example sentences are shown below.

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

The three Dutch example sentences (5, 6, 7) mainly assess whether a Dutch participant thinks it is okay to use the EV2 clause or not, relatively to direct and indirect speech. The three Frisian example sentences (8, 9 and 10) allow us to see how aware a Dutch-Frisian participant is of the ability to use the EV2 clause in Frisian. The difference between Dutch and Frisian EV2 sentence scores will then show how much interference a participant has of Frisian on Dutch for this specific case. For a more detailed view on the questions asked in the questionnaire, see *Appendix B*.

### 2.4. Design

The experiment is a mixed factorial design. The error-rates and reaction times were measured per case.

## 3. Results

In order to investigate whether there is a difference between Dutch and Dutch-Frisian speakers in the amount of errors made whilst interpreting Dutch direct speech, let's take a look at some visual representations of the data from the two parts of the experiment.

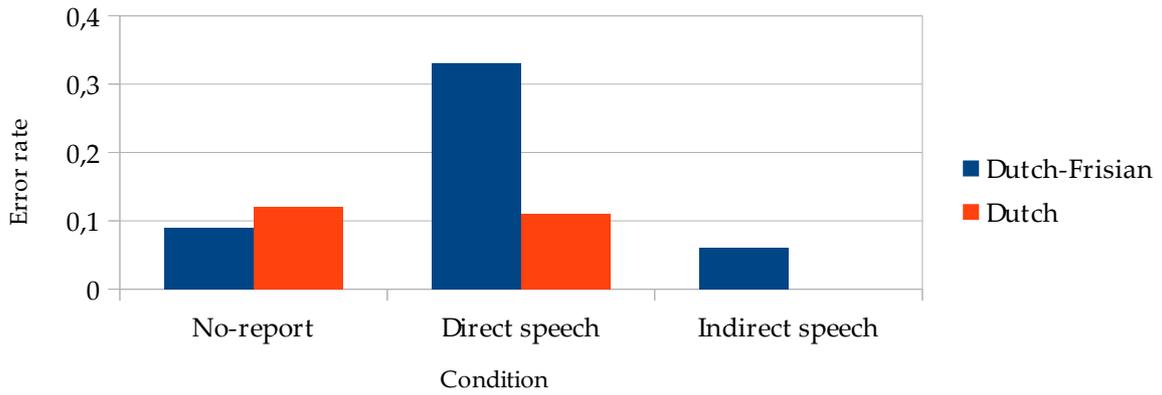


Figure 2: Error-rates are shown per condition for both Dutch and Dutch-Frisian participants separately. Higher bars indicate more errors. Error-rates are calculated by mean.

### 3.1. Comprehension test

Results from the experiment can be seen in Figure 2. It is not hard to find the most striking aspect of this graph. Dutch-Frisian participants make way more errors in direct speech than in the no-report condition which is roughly three times the next highest error-rate. This is a significant larger error-rate of Dutch-Frisian participants compared to Dutch participants in the direct speech condition (Wilcoxon rank sum test = 35,  $p < 0.05$ ). In the no-report condition there could not be found any significant difference, this holds also true for the indirect speech condition.

Reaction times did not show any significant difference between Dutch and Dutch-Frisian participants.

Results shown in further detail can be seen in Figure 3. By looking at the figure, we can see three different clusters representing singular personal pronouns, which are respectively: *ik*, *jij* and *hij*. Most notable are the error-rates in the no-report conditions. No errors are made in the

no-report condition for singular personal pronouns *ik* and *jij*. But a rather high amount of errors are made in the no-report condition for the third person singular pronoun *hij*. This holds for both Dutch and Dutch-Frisian participants. Next to this, the figure is relatively equal to Figure 2, except for the different scaling in error-rates per singular personal pronoun. Looking at just relative differences between direct and indirect speech, Dutch and Dutch-Frisian participants bear equal results.

### 3.2. Questionnaire

The questionnaire results are rather large. Hence only relevant or interesting results will be shown here.

Now let's look at the results shown in Figure 4. In the direct and indirect speech bars practically all participants agreed upon the fact that both clauses can be used in Dutch. In addition to that, almost all Dutch-Frisian participants also rated these clauses as grammatical in Frisian. Dutch participants

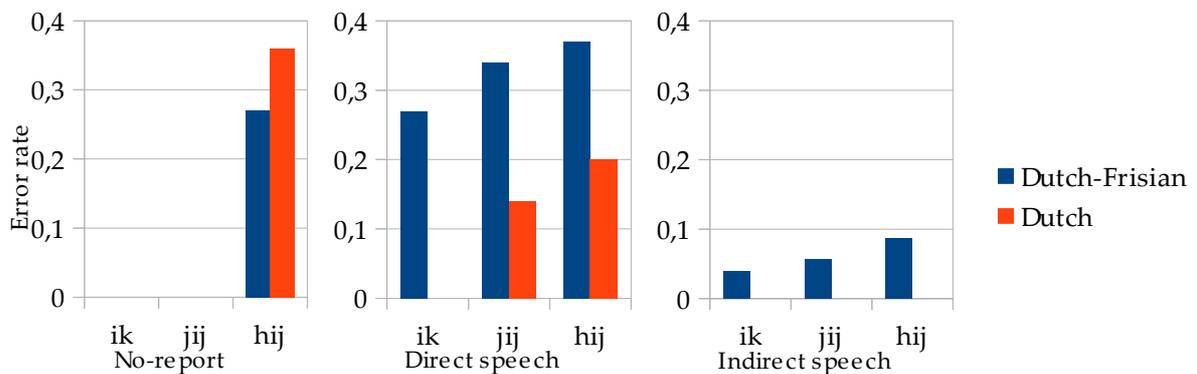
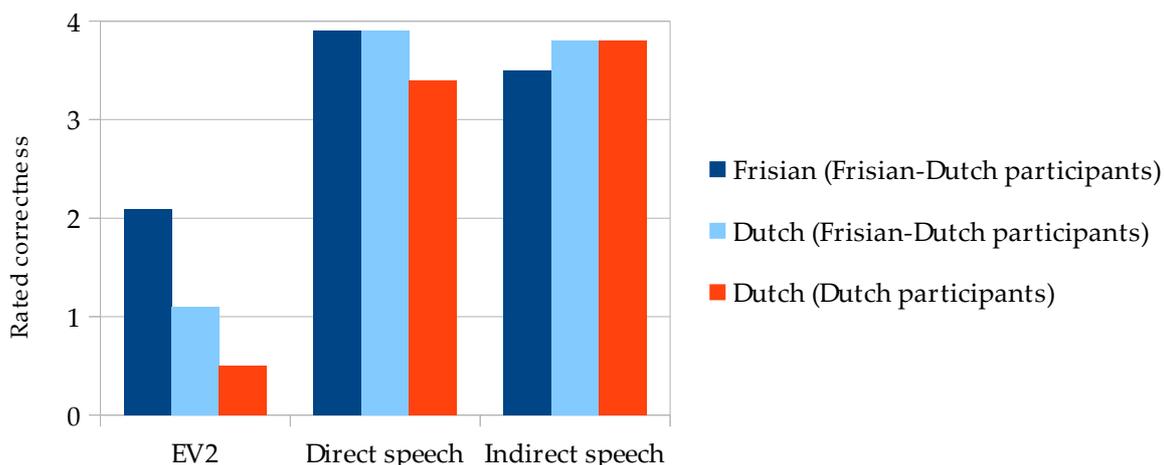


Figure 3: Results shown in more detail, split by personal pronoun.



**Figure 4: Correctness of speech reporting clauses in Dutch rated by both Dutch-Frisian and Dutch participants. Frisian sentences only rated by Dutch-Frisian participants.**

clearly agree that EV2 cannot be used in Dutch. Dutch-Frisian participants rate the correctness of EV2 higher than Dutch participants, although still much lower compared to direct and indirect speech. Dutch-Frisian participants also had to rate the correctness of EV2 in Frisian. This rated as well still much lower compared to direct and indirect speech. It has to be noted here that the variance in the results here was very large. Most participants chose extreme values, thus either four or zero.

#### 4. Conclusion

Given the results of the experiment, the hypothesis is confirmed since significantly more errors have indeed been made by Dutch-Frisian participants whilst interpreting Dutch direct speech compared to Dutch participants. However, there is more to it than meets the eye. Not all results have been explained yet.

First, why did participants make errors in the no-report condition? The errors only occurred when using the third singular personal pronoun *hij* (Figure 3). This is probably due to the fact that the experiment has a relatively low ecological validity combined with the fact that *hij* has multiple properties compared to the other pronoun used (*ik* and *jjj*). Three characters are shown whispering and talking to each other. People can see them all in one 'room', hence the usage of *hij* seems unusual, because this pronoun is generally not used when the person whom it is referring to is hearing the conversation as well. In that case it is often more natural to use the name of the person instead. And if not, then it has already been referred to earlier in the

context. Also, the third person pronoun (*hij*) can usually refer to more possible characters than one can indicate with a first person pronoun (*ik*) or a second person pronoun (*jjj*). These two aspects could explain the errors made by participants in the no-report condition.

Second, why did Dutch-Frisian participants make errors - although less than direct speech - in indirect speech as well? The direct and indirect speech conditions were alternated randomly. Because direct speech can be misinterpreted as being indirect speech as stated in the hypothesis, there could be general confusion causing participants to make errors in the indirect speech condition as well. However this may sound like circular reasoning, there are two additional things to consider. Firstly, the errors made in direct speech, for Dutch-Frisian participants, were by average still about three times as much as indirect speech. And secondly, the results from the questionnaire show that Dutch-Frisian participants were less sure about using EV2 in Dutch speech than Dutch participants. And they were already unsure about whether the EV2 clause could be used in Frisian or not anyway. Thus giving support to the theory that Dutch-Frisian participants were indeed influenced by the EV2 clause.

Summarizing the theory, the errors made by Dutch-Frisian participants compared to Dutch participants can be explained by three things: negative language transfer - which leads to interference, general confusion, and low ecological validity of the experiment.

It is still unclear how much influence the interference really has on the amount of errors.

There were not enough participants to draw further conclusions. Also, participants were not sufficiently separated through the questionnaire by whether they were grown up with Frisian and Dutch or were educated Frisian at a later stage.

It should also be noted that in practice it is often already salient which person is being referred to. People generally do not need to fully understand the grammatical structure of a language to interpret pronouns correctly, to find out to who is being referred to, people simply use heuristics (Crawley, Stevenson, & Kleinman, 1990).

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## Appendix A

### Characters:

- Dog
- Elephant
- Monkey

### Items:

- Football
- Book
- Guitar
- Sunglasses
- Pen
- Scarf
- Umbrella
- Cup
- Car
- Airplane
- Spoon
- Hammer
- Flag
- Rose
- Hat
- Toothbrush
- Scissors
- Key

### Experimental items:

- Practice
  - Elephant gets the book.
  - Dog gets the car.
  - Monkey gets the spoon.
- No-report
  - I get the sunglasses.
  - He gets the spoon.
  - You get the car.
  - He gets the scissors.
  - You get the cup.
  - He gets the football.
  - You get the hammer.
  - He gets the toothbrush.
  - I get the scarf.
  - I get the pen.
  - I get the airplane.
  - You get the flag.
  - He gets the book.
  - I get the umbrella.
  - You get the guitar.
- Direct and indirect speech
  - Elephant said that I get the hat.
  - Monkey said that I get the toothbrush.
  - Dog said, "he gets the rose."

- Monkey said, "you get the rose."
- Dog said that he gets the airplane.
- Monkey said, "I get the key."
- Monkey said that you get the pen.
- Monkey said that he gets the sunglasses.
- Dog said that he gets the toothbrush.
- Elephant said that I get the football.
- Monkey said that I get the flag.
- Elephant said, "I get the football."
- Elephant said that he gets the scissors.
- Elephant said, "I get the sunglasses."
- Dog said that you get the cup.
- Dog said, "you get the scissors."
- Monkey said, "he gets the car."
- Elephant said that you get the scarf.
- Monkey said, "he gets the cup."
- Dog said, "I get the hammer."
- Dog said, "he gets the airplane."
- Elephant said, "you get the spoon."
- Elephant said, "you get the pen."
- Elephant said, "he gets the umbrella."
- Elephant said that he gets the guitar.
- Dog said, "I get the hat."
- Monkey said, "you get the flag."
- Dog said that I get the book.
- Dog said that you get the book.
- Elephant said that you get the hammer.

## Appendix B

Questionnaire items. Depending on whether participant has selected Frisian as a mother language.

- What is your gender?
- What is your age?
- What is your highest level of education you are - or have been - following?
- Check your mother language(s).
- Check your second language(s).
- [Frisian] Which dialect fits your Frisian language best?
- [Frisian] How often do you speak Frisian?
- [Frisian] How often do you write Frisian?
- [Frisian] How well do you speak Frisian?
- [Frisian] How much influence does Frisian have on your Dutch language?
- [Dutch] How well do you understand Frisian?
- *Jan: "Ik ga naar de winkel."*  
Jan: "I am going to the store."  
(1) *Jan zei: "Ik ga naar de winkel."*  
(1) Jan said: "I am going to the store."  
The given sentence (1) is a correct way to say what Jan said.
- *Bert: "Ik speel goed voetbal."*  
Bert: "I play soccer well."  
(2) *Bert zei, hij speelt goed voetbal.*  
(2) Bert said, he plays soccer well.  
The given sentence (2) is a correct way to say what Bert said.
- *Anna: "Ik hou niet van vis."*  
Anna: "I do not like fish."  
(3) *Anna zei dat ze niet van vis houdt.*  
(3) Anna said that she does not like fish.  
The given sentence (3) is a correct way to say what Anna said.
- [Frisian]  
*Pyt: "Ik bin it paad bjuster."*  
Pyt: "I have lost track."  
(4) *Pyt sei: "Ik bin it paad bjuster."*  
(4) Pyt said: "I have lost track."  
The given sentence (4) is a correct way to say what Pyt said.
- [Frisian]  
*Abe: "Ik haw in gles pakt."*  
Abe: "I have grabbed a glass."  
(5) *Abe sei, hy hat in gles pakt.*  
(5) Abe said, he has grabbed a glass.  
The given sentence (5) is a correct way to say what Abe said.
- [Frisian]  
*Froukje: "Ik hoopje op sinneskynwaar."*  
Froukje: "I hope for sunny weather."  
(6) *Froukje sei dat se op sinneskynwaar hoopt.*  
(6) Froukje said that she hopes for sunny weather.  
The given sentence (6) is a correct way to say what Froukje said.
- [Frisian]  
*Ik gean fytsen.*  
I go cycling.  
The given sentence is correct Frisian.
- [Frisian]  
*Ik bin der wis van dat er it hat dien.*  
I am sure that he it has done.  
The given sentence is correct Frisian.
- [Frisian]  
*Wat gean wy ris dwaan?*  
What going we to do?  
The given sentence is correct Frisian.
- [Frisian]  
*De wichtichste reden dat er it wol dwaan.*  
The most important reason that he it wants to do.  
The given sentence is correct Frisian.