

Introduction
oooooooo

Elicitation problems
ooooooooo

Experiments with visual stimuli
oooooo

Our experiments
oooo
oooooooooooooooooooo
ooooooo

Conclusions
oooo

Modeling visual stimuli for descriptive fieldwork among the Upper Lozva Mansi: metalanguage vs. target language

Daria Zhornik, Sophie Pokrovskaya

Lomonosov Moscow State University
Institute of Linguistics, Russian Academy of Sciences

daria.zhornik@yandex.ru, sofie.v.pokrovskaya@gmail.com

Fieldwork: methods and theory
University of Gothenburg, 14.12.2018

Introduction
ooooooo

Elicitation problems
oooooooo

Experiments with visual stimuli
oooooo

Our experiments
oooo
oooooooooooooooooooo
ooooooo

Conclusions
oooo

Overview

Introduction

Elicitation problems

Experiments with visual stimuli

Our experiments

Ready-made stimuli

Visual stimuli for information structure

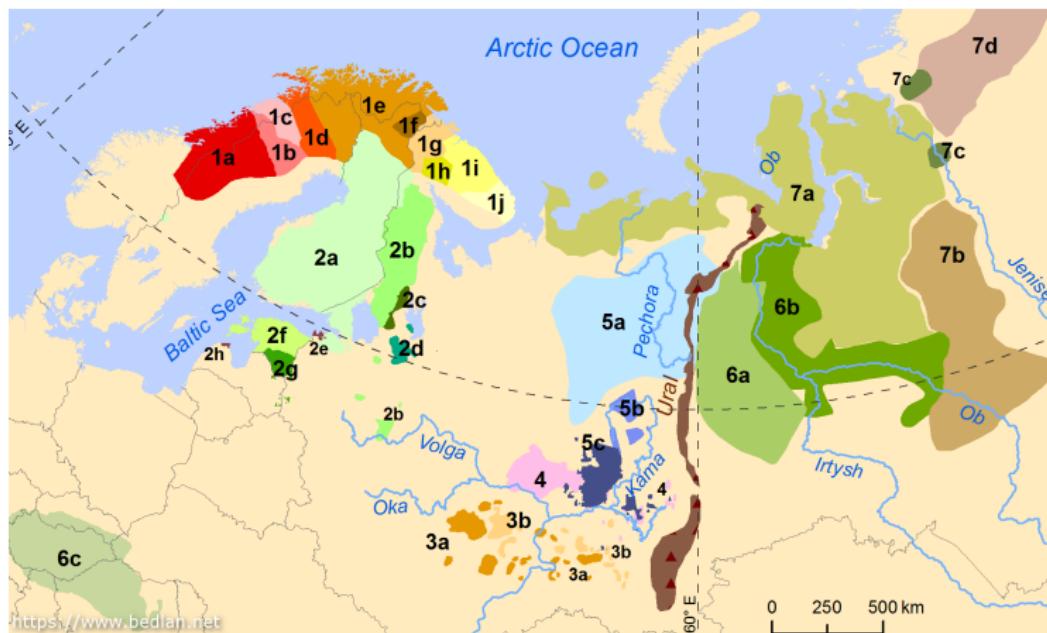
Visual stimuli for text extraction

Conclusions

The Mansi language

- ▶ Mansi < Ob-Ugric < Finno-Ugric < Uralic
- ▶ An indigenous language in Western Siberia
- ▶ Census 2010: 938 speakers
- ▶ Upper Lozva Mansi seems to be the only dialect still used in everyday communication and transmitted to children
- ▶ Our project: documentation of the Upper Lozva dialect (approx. 100 speakers, Sverdlovsk oblast), supported by the RFBR grant №18-012-00833A "Dynamics of phonetical and grammatical systems of Ob-Ugric languages"

The Mansi language (6a)



Fieldwork among the Upper Lozva Mansi

- ▶ 3 field trips in 2017-2018 (60 days total), villages Ushma and Treskolje, 2-3 linguists
- ▶ 18 informants, both male and female, aged 15-78
- ▶ 5 hours of recorded texts for our corpus
- ▶ 1000 + words and some verbal and nominal paradigms
- ▶ Phonetic questionnaires
- ▶ Basic elicitation of grammar
- ▶ **Experiments with visual stimuli** (summer 2018)

Language attitude

- ▶ The consequences of the USSR language policy and of the large number of Russian tourists in the area (Upper Lozva Mansi live next to numerous popular hiking sites in the Ural mountains) resulted in Russian becoming a more prestigious language of interaction.
- ▶ Upper Lozva Mansi speakers only learn Russian at school, but afterwards they prefer it to Mansi in all situations where Russian influence is present.
- ▶ The only situation when they actively use the Mansi language is when they are in their home villages with no Russian speakers around.

Technical difficulties

- ▶ The villages where we perform our fieldwork are located deep in Siberian taiga (150km from the nearest town) and lack electricity, mobile connection, internet etc.
- ▶ The way there (and back) is also hard and unpredictable, so it is difficult to design advanced experiments in the field as well as to use computers for data processing.
- ▶ So, basically, we have to improvise and use those scarce and simple materials that are (luckily) available to us in the forest...

Introduction
oooooooo•

Elicitation problems
ooooooooo

Experiments with visual stimuli
ooooooo

Our experiments
oooo
oooooooooooooooooooo
ooooooo

Conclusions
ooooo

Technical difficulties



Elicitation problems

- ▶ Experiments in the field are a plausible alternative for elicitation tasks, which have several disadvantages:
 - ▶ Possible misunderstandings;
 - ▶ Lack of broader context, which makes it impossible to study larger bodies of discourse;
 - ▶ The impact of information structure is to a large extent lost in translation tasks;
 - ▶ Priming caused by the metalanguage: calques, word-by-word translations, copying of words from the metalanguage;
 - ▶ Possible self-priming, where the speaker follows a rigid strategy of translation for similar sentences;
 - ▶ It is difficult for some speakers to accurately translate given sentences.

Interference in phonetics

- ▶ All Upper Lozva Mansi speakers (except for 1 monolingual person) are fluent in Russian.
- ▶ It may result in strong priming effect in speech while switching from one language to another, e.g. during elicitation tasks.
- ▶ Thus, elicitation with Russian stimuli triggers phonetic phenomena which are impossible in fluent and natural Mansi speech.
- ▶ These phenomena are not regular, which proves that they are not language rules, but mistakes caused by interference.

Employing sounds borrowed from the metalanguage

- ▶ **Recording situation:** during a discussion held in Russian, the speaker comments on the Mansi lexicon and mentions the following words.
 - ▶ *suj* ‘sound, noise’: [suj] vs. [**s'uj**]
 - ▶ *kwaləj* ‘rope’: [kwaləj], [kaləj] vs. [kfaləj]

Employing sounds borrowed from the metalanguage

- ▶ **Recording situation:** during a discussion held in Russian, the speaker comments on the Mansi lexicon and mentions the following words.
 - ▶ *suj* ‘sound, noise’: [suj] vs. [*s'uj*]
 - ▶ *kwaləj* ‘rope’: [kwaləj], [kaləj] vs. [kfaləj]
- ▶ The Upper Lozva Mansi consonant system lacks both [s'] and [f] sounds.

Realizations of phonemes characteristic for the metalanguage

- ▶ **Recording situation:** elicitation, word-by-word translation.
- ▶ Mispronunciations made by the speaker: incorrect choice of allophone.
 - ▶ *say* ‘braid’: [say], [saj] vs. [sak]

Realizations of phonemes characteristic for the metalanguage

- ▶ According to regular rules, the possible consonant reduction in the word-final position is as follows:
 - ▶ $\gamma \rightarrow \chi$
 - ▶ $j \rightarrow i$
 - ▶ **not** $\gamma \rightarrow k$ or $j \rightarrow k$.
- ▶ It should also be noted that *sakw* ‘beads’: [sak] is a different Mansi word whatsoever.

Realizations of phonemes characteristic for the metalanguage

- ▶ **Recording situation:** elicitation, word-by-word translation with Russian phrases in between.
- ▶ Mispronunciations made by the speaker: loss of phonological features.
- ▶ The Mansi language exhibits the phonological opposition of vowel length.
- ▶ Synchronously, this opposition is based rather on vowel quality than on actual vowel duration.

Realizations of phonemes characteristic for the metalanguage

- ▶ In case of Russian interference, the distinction in both quality and quantity is lost.
- ▶ The correct pronunciation of the following minimal pair is as follows:
 - ▶ cám ‘eye’: [səm]
 - ▶ cām ‘corner’: [sə:m]
- ▶ However, in Russian surrounding we may find both of these words pronounced as [sam]

Experiments as an alternative

- ▶ Experiments in the field have been frequently performed in the past years, the ones most familiar to us include [Arjava 2013], [Usacheva 2016] etc.
- ▶ This method minimizes the influence of the metalanguage and enables natural interaction between speakers, if the tasks are performed in pairs.
- ▶ Unlike [Usacheva 2016], [Kozlov et al. 2016] etc., we did not focus on studying a certain grammatical category (such as case compounding). Instead, we aimed at gathering natural data for studying the macrostructure of the Mansi language.

Experiments as an alternative

- ▶ We cannot collect a large corpus of such texts, because the number of adult speakers who use the dialect regularly is under 20.
- ▶ The children are also full speakers, but they are extremely shy and gamification is required to enable work with them.
- ▶ Complex stimuli (such as videos) are unavailable to us due to our working conditions.
- ▶ We produce pictures instead.

Cultural appropriateness of visual stimuli

- ▶ Yesterday's workshop: the question of cultural acceptability of visual stimuli.
- ▶ At first, we also encountered some misunderstandings, but then we started to adapt our visual stimuli to the Mansi lifestyle by drawing them ourselves.
- ▶ Afterwards, we compared stories produced with pictures containing Mansi tales vs. Russian tales vs. abstract stories.

Use of language in visual stimuli

- ▶ Yesterday we also raised the question of using the contact language in stimuli.
- ▶ We first tried using the metalanguage but then decided to switch to the target language.
- ▶ In this case, we used single keywords instead of phrases or texts to avoid priming.

Other interesting effects

- ▶ The traditional Mansi lifestyle lacks a certain number of concepts common for modern urban life.
- ▶ Consequently, they are absent from the Mansi language, although they might be known to those Mansi speakers we encounter today.
- ▶ The use of visual stimuli causes the speakers to invent new ways of describing "foreign" concepts (as well as abstract concepts) in their native language.

Types of data we are trying to extract

- ▶ Phrasal stress marking (focus, contrast);
- ▶ Choice of voice and DOM;
- ▶ Word order and argument marking;
- ▶ Discourse particles;
- ▶ Referential strategies;
- ▶ Natural texts (with expected information structure);
- ▶ Any other interesting types of data.

Ready-made stimuli

Ready-made visual stimuli

- ▶ Our first attempt: pictures for psycholinguistic experiments mentioned in [Fedorova 2008]
- ▶ We tried to gather data on word order and argument marking in basic transitive and ditransitive constructions.
- ▶ Also, we marked the "main" participants of the situations in colour, to study different types of information structure.

Ready-made stimuli

Ready-made visual stimuli



Ready-made stimuli

Ready-made visual stimuli

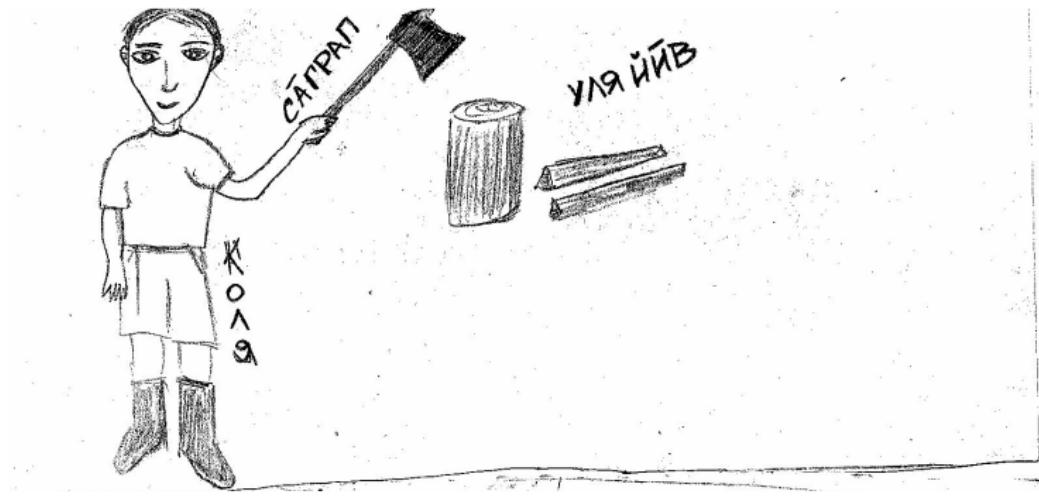


Personal design of visual stimuli

- ▶ Our next experiment included describing a picture with a single sentence.
- ▶ The pictures contained keywords in the Mansi language, which described the participants of the situation.
- ▶ In this experiment, we used constructions with three participants, normally, the Agent, the Patient and the Instrument.
- ▶ The Agents we used in our pictures are our consultants, and the actions they perform are those they really do in everyday life.

Visual stimuli for information structure

Personal design of visual stimuli



Visual stimuli for information structure

Experimental task

- The speaker describes the picture:

(1) kol'a ul'a jīw sāyrap-əl sāyr-i
Nikolai fire wood axe-INS chop-NPST.3SG
'Nikolai is chopping wood with an axe'.

Experimental task

- ▶ The researcher asks the following question in Mansi:

(2) **manər** kol'a sāyrap-əl sāyr-i?
what Nikolai axe-INS chop-NPST.3SG
'What is Nikolai chopping with an axe?'.

- ▶ The speaker gives an answer:

(3) (kol'a) **ul'a jīw** (sāyrap-əl) sāyr-i?
Nikolai fire wood axe-INS chop-NPST.3SG
'(Nikolai) is chopping **wood** (with an axe)'.

Visual stimuli for information structure

Experimental task

- ▶ The researcher asks the second question:

(4) **manar-əl** kol'a ul'a jīw sāyr-i?
what-INS Nikolai fire wood chop-NPST.3SG
'What is Nikolai chopping wood **with?'.**

- ▶ The speaker answers:

(5) (kol'a) **sāyrap-əl** (ul'a jīw) sāyri?
Nikolad axe-INS fire wood chop-NPST.3SG
'(Nikolai) is chopping (wood) **with an axe'.**

Visual stimuli for information structure

Analysis of this task

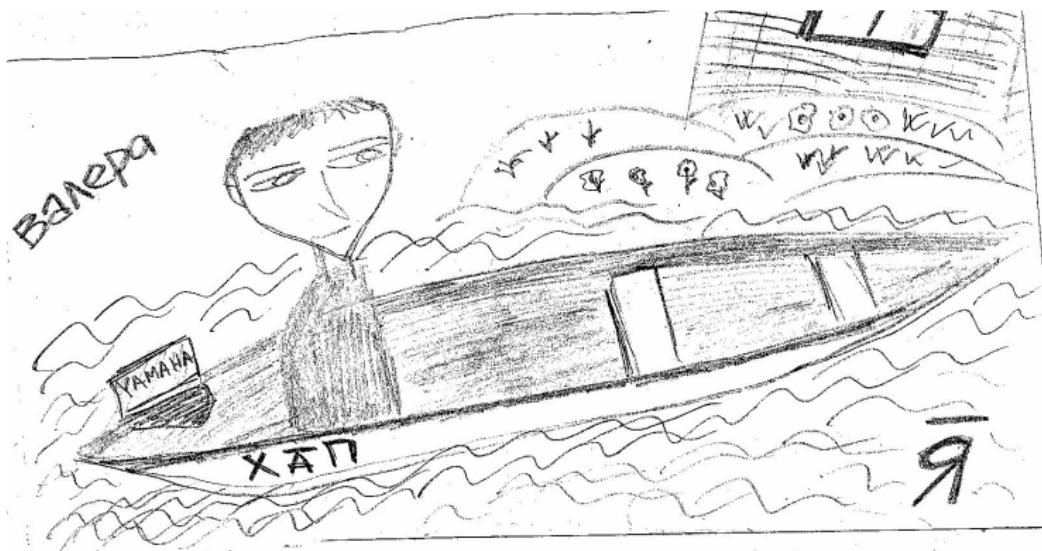
- ▶ Why do we use keywords at all?
- ▶ In such simple pictures, they ensure complete understanding of what is happening and also makes the sentence produced by the speaker fully predictable.
- ▶ Beforehand, we checked that in all situations found in our pictures, Mansi speakers would use exactly these words and no other words. We removed all situations where any ambiguity was possible.

Visual stimuli for information structure

Analysis of this task

- ▶ The fact that the expected sentence is fully determined allows us to produce appropriate questions (also independently approved by consultants before the experiment).
- ▶ The guaranteed use of the same words by different speakers lets us study syntactic and phonetic (prosodic) phenomena without bias caused by lexical factors.

Visual stimuli for information structure

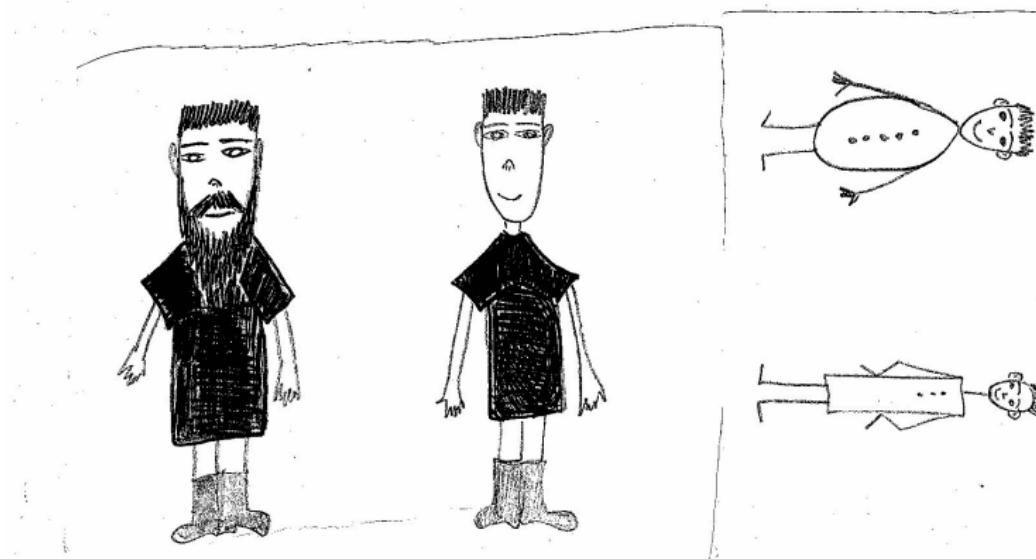


Comparing pairs of pictures

- ▶ Another type of task we performed included describing pairs of pictures.
- ▶ The pictures showed 2 items or persons, which are different in some respect (big vs. small, tall vs. short, black vs. white etc.).
- ▶ The speaker had to produce sentences like "This man is tall and that man is short".
- ▶ In this manner, we tried to collect data for studying contrast.

Visual stimuli for information structure

Comparing pairs of pictures

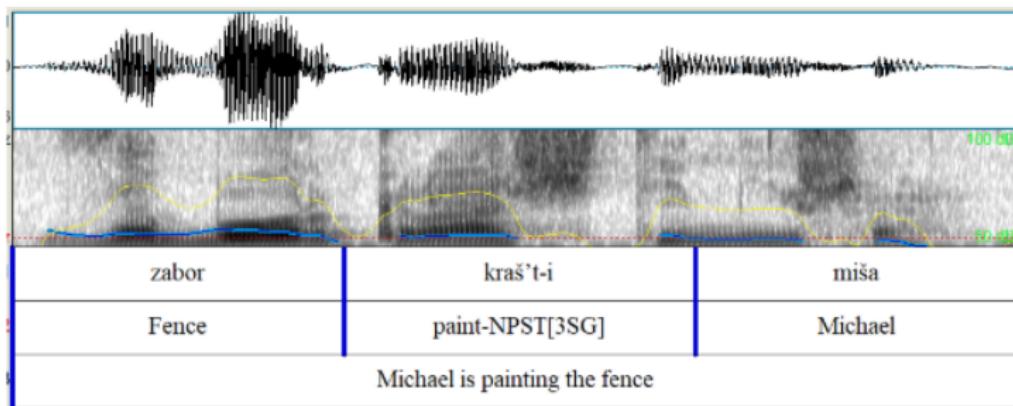


Analysis of prosody

- ▶ These two types of tasks (pictures with Mansi keywords and pairs of pictures) differ in terms of results from those with Russian keywords.
- ▶ Let us consider prosodic features.

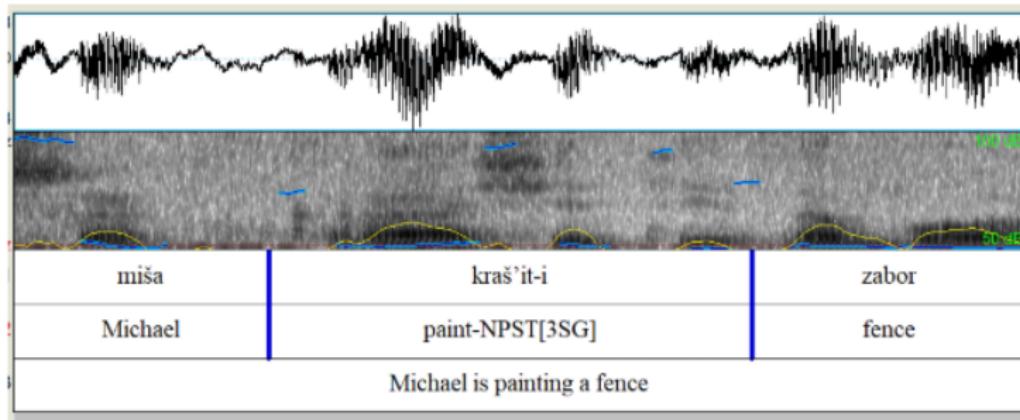
Visual stimuli for information structure

Visual stimuli with Russian keywords



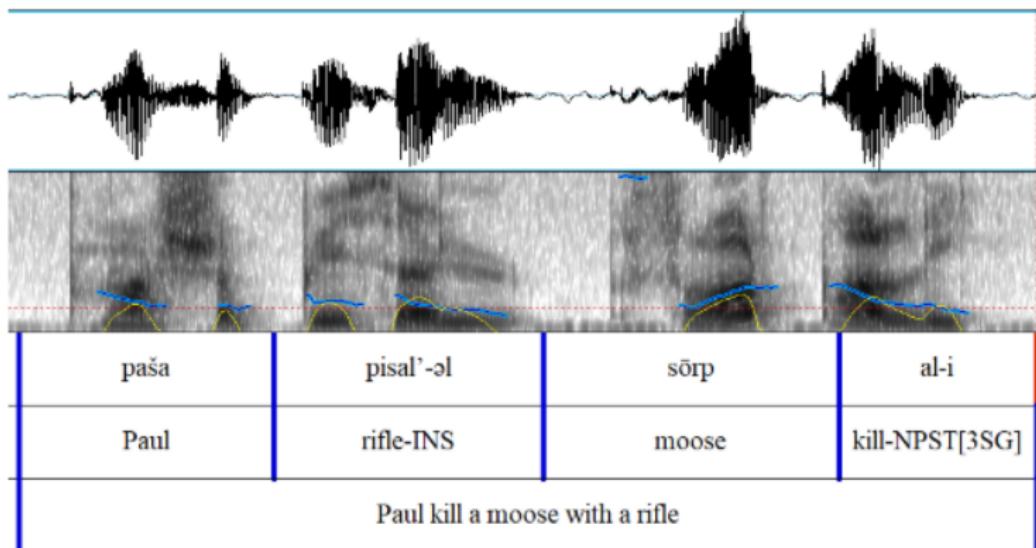
Visual stimuli for information structure

Visual stimuli with Russian keywords



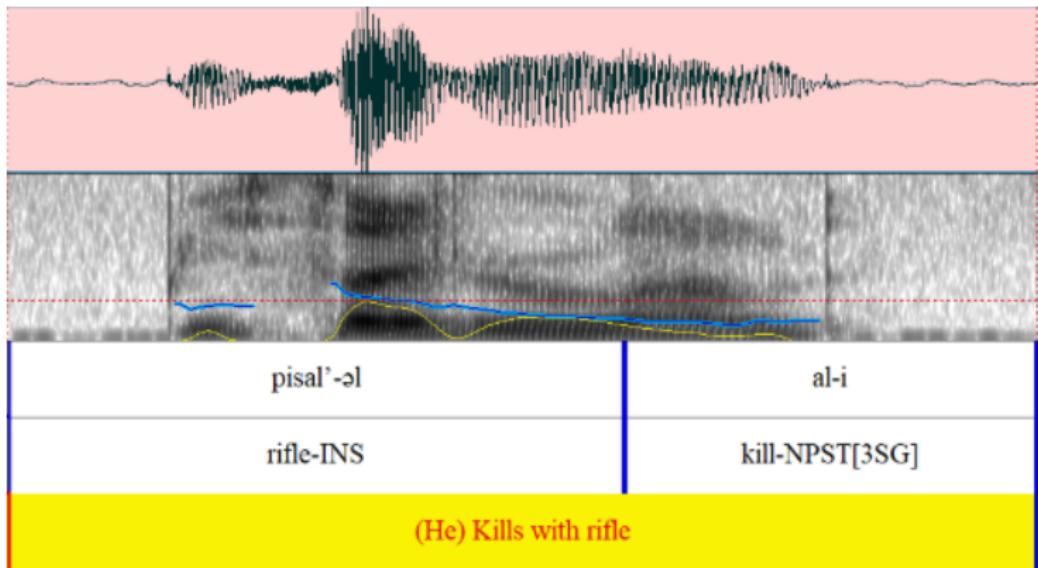
Visual stimuli for information structure

Visual stimuli with Mansi keywords



Visual stimuli for information structure

Visual stimuli with Mansi keywords



Stimuli for text extraction

- ▶ Having successfully performed experiments with the pictures shown earlier (single pictures or pairs of pictures), we decided that it was time to try extracting stories based on series of pictures.
- ▶ By that time, we have stopped using Russian words in visual stimuli, so our storyboards either had no keywords at all, or we used Mansi words or short phrases.

Stimuli for text extraction

- ▶ However, we decided to experiment further and look whether stories associated with Russian culture might again trigger Russian-like syntax and phonetics.
- ▶ We produced three types of storyboards:
 - ▶ 2 Russian folk tales;
 - ▶ 1 Mansi folk tale;
 - ▶ 2 abstract stories.
- ▶ Then we collected texts and tried to compare the results.

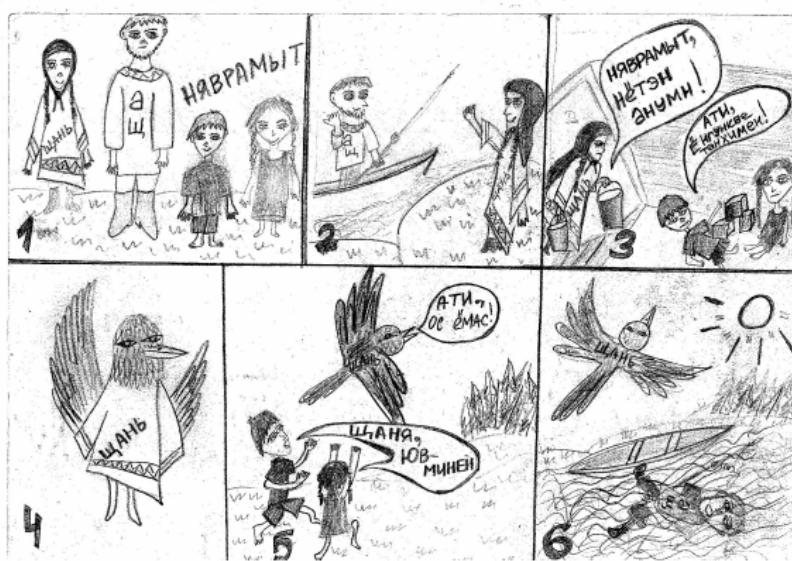
Visual stimuli for text extraction

Russian tales



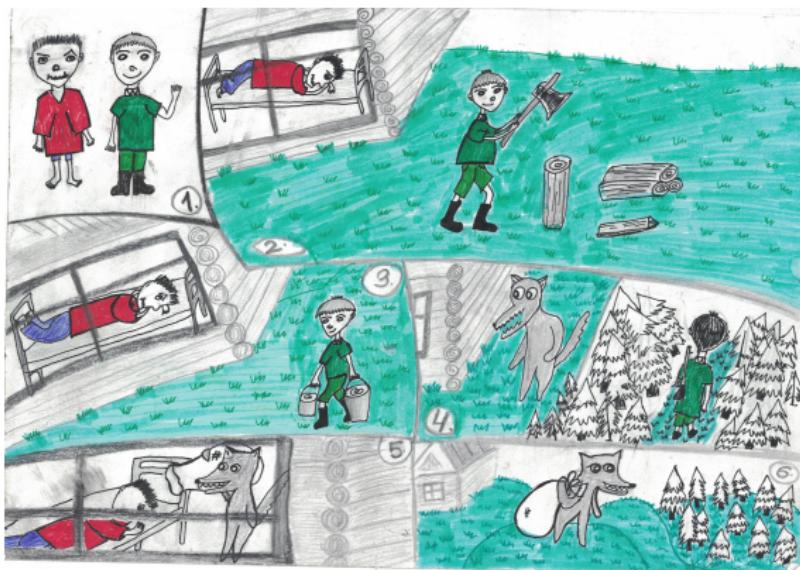
Visual stimuli for text extraction

Mansi tales



Visual stimuli for text extraction

Abstract stories



Comparing different types of stimuli

- ▶ We have not yet collected a significant amount of these texts, each story was collected from approximately two speakers.
- ▶ However, a visible tendency is that speakers which are more exposed to the Russian language (in our case, teenagers who attend a Russian boarding school) shift to Russian word order and prosody as well as insert Russian words into their stories, if the pictures describe a Russian folk tale.

Comparing different types of stimuli

- ▶ More "traditional" speakers integrate the Russian story into the Mansi way of storytelling and produce texts which are as "pure" and natural as those based on Mansi folk tales and abstract stories.
- ▶ However, at this point this is all very preliminary and we need more texts.

Potential use of our texts

- ▶ The texts that we gathered allow us to study a large variety of phenomena:
 - ▶ Prosody;
 - ▶ Choice of voice and DOM strategies;
 - ▶ Polypredication;
 - ▶ Coordination strategies;
 - ▶ Case marking and argument structure;
 - ▶ Discourse particles
 - ▶ and much more...
- ▶ But unfortunately, we do not have enough time to go through any of them in detail.

Conclusions

- ▶ This summer we performed numerous tasks involving visual stimuli:
 - ▶ Single pictures with Russian keywords;
 - ▶ Single pictures with Mansi keywords and follow-up questions;
 - ▶ Pairs of pictures with no keywords;
 - ▶ Storyboards based on Mansi tales;
 - ▶ Storyboards based on Russian tales;
 - ▶ Storyboards based on abstract stories.
- ▶ Actually, we also recorded 2 sessions of an experiment on referential communication, which involved sorting cards in pairs. But this is a story for another talk.

Conclusions

- ▶ We came to the conclusion that in our situation it is useful to avoid metalanguage as it triggers strong priming effects.
- ▶ As it turned out during fieldwork, using visual stimuli with no words or with Mansi keywords fulfills this requirement.
- ▶ The question of priming from the contact language may not seem crucial, but in some areas of syntax, prosody and discourse it biases the data extremely.
- ▶ Drawing away from Russian, we managed to gather a significant number of natural utterances and texts for various studies of these phenomena.

Conclusions

- ▶ Creating visual stimuli with regard to the lifestyle and concepts common to the target community enabled us to successfully implement this method.
- ▶ If the pictures are easily understood by the speakers, they quickly get used to performing such tasks.
- ▶ Also, working on these pictures feels more exciting than translation tasks which helps us convince more speakers to produce something for us.

Conclusions

- ▶ In our target community, where people are traditionally untalkative, the use of pictures allows us to extract richer narratives than if we just try to make the speaker tell us a story.
- ▶ In the future, we plan to create more tasks for pairs and groups of speaker to see how they interact with each other.

Introduction
oooooooo

Elicitation problems
ooooooooo

Experiments with visual stimuli
oooooo

Our experiments
oooo
oooooooooooooooooooo
ooooooo

Conclusions
oooo●

Thank you for your attention!

