

# Intonations and functions of questions in Helsinki Swedish conversations

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## Abstract

*This is a qualitative study of questions in the Swedish variety spoken in Helsinki, Finland. Focus is on the intonation contours and functions of the questions. The data consist of recordings of spontaneous conversations. The study connects to the methodological framework of interactional linguistics, and the questions are analyzed sequentially and phonetically.*

*The results show that the intonation contours of the questions resemble those of Sweden Swedish and Finnish. There is no direct relationship between the intonation contour of a question and its function, but intonation is used to distinguish between utterances inside the category of questions. Also other features take part in the function of the question, that is, syntactical, lexical, sequential and epistemic factors.*

## Introduction

Questioning is an essential activity in conversation, which has various functions (Hayano, 2013; Stivers & Enfield, 2010). It is assumed that intonation contributes to the signaling of questions universally, mainly through final rising intonation (e.g. Gussenhoven, 2004). In many languages, especially yes/no-questions have final rising intonation, whereas wh-questions have falling intonation (e.g. Bolinger, 1989 on English). However, Couper-Kuhlen (2012) has shown for English that not only syntax, but also action-type and epistemic factors affect the final intonation of a question. Thus the relationship between intonation and function in questions is a complex one.

Helsinki Swedish is an interesting case in point, as it syntactically and lexically is close to Sweden Swedish (Reuter, 2006; Wide & Lyngfelt, 2009), but prosodically and phonetically resembles Finnish (Aho 2010; Kuronen & Leinonen 2008). For example, Helsinki Swedish lacks tonal accents, like most Finland Swedish varieties (Bruce, 2010; Selenius, 1974).

Thus, the most relevant languages to compare Helsinki Swedish with are Sweden Swedish and Finnish. According to Strömbergsson, Edlund and House (2012), spontaneous questions in Sweden Swedish dialogues vary regarding several prosodic features, that is, final intonation, pitch variation

and duration. Final rising intonation is mainly found in backward-looking wh-questions, like *what?* and *what did you say?*. House (2005) regards rising intonation as an optional interrogative feature in spontaneous wh-questions, functioning response-seeking and expressing a friendly attitude. In Finland Swedish wh-questions, Kuronen and Leinonen (2010) have found a falling contour in, starting with a rise-fall on the question-word and having a smaller pitch-movement on the nominal element at the end.

For Finnish, Iivonen (1978) presents six intonation contours that occur in spontaneous questions: 1) falling, 2) high initial, 3) extra high initial, 4) high overall until the last stressed syllable, 5) rising from beginning and 6) final rising. Anttila (2008) includes four more contours: a rising-falling, a level, a falling-rising, and a globally low contour. Anttila points out that creak is more common in the questions than in the statements in her data. According to Iivonen and Anttila, the intonation contour of a question is related to syntax, discourse function and the speaker's idiolect. A globally rising contour is according to Iivonen used to indicate astonishment and call for repetition. The final rising contour indicates according to Iivonen that floor is open, and may be a result of foreign influence and an idiolectal feature.

## Data

The research data consist of 6 recordings of spontaneous conversations. In the conversations 29 persons in all take part, aged 9 to about 60 years, both females and males. The participants are Swedish speakers from the Helsinki region in Finland. The conversations can be characterized as everyday conversations. They are multiperson conversations, as three or more persons take part in each conversation.

Questions are extracted from the recordings according to two criteria. Firstly, they concern the epistemic domain of the recipient. This means that the speaker has less knowledge than the recipient about the topic of the question. Therefore, rhetorical questions are not included, as the speaker then has more knowledge than the recipient. Secondly, questions are utterances that make an answer necessary. A consequence of the definition is that it includes utterances with interrogative and non-interrogative syntax.

## Methods

The theoretical and methodological framework is Interactional Linguistics (IL) (Couper-Kuhlen & Selting, 2001). In IL, researchers study how linguistic features, like intonation, are used to create meanings in interaction. In IL, methods from Conversation Analysis (CA) are combined with other methods from linguistics, for example phonetic analysis.

In this study I have performed a sequential analysis of the sequences where the questions appear, as well as a phonetic analysis of the intonation of the questions. The sequential analysis includes an analysis of the syntactical and lexical features of the question, its sequential placement as well as of situational factors. The sequential analysis results in an account of the function of the question. The intonation of the question is studied with auditory and acoustic methods. For the acoustic analysis I have used the program Praat (Boersma & Weenink, 2015). As part of the analysis, I have transcribed the sequences with the questions (cf. Transcription symbols). To get an impression of where in the speaker's pitch range a question is produced, I have measured the modal pitch range of each speaker on 1-2 minutes of speech. In the acoustic records the maximum, minimum and median of the pitch range are presented as horizontal lines.

## Results and discussion

The study shows that no single intonation contour can be perceived as indicating questioning in Helsinki Swedish, but questions are produced with various intonation contours. Most of the contours have final falling intonation (ca 80 %). The part of questions with final rising intonation is about the same as House (2005) found in Sweden Swedish wh-questions (under 20 %). In addition, a small part of the questions have final level intonation.

The intonation contours of the questions resemble those described by Iivonen (1978) and Anttila (2008) for Finnish. Furthermore, creak is a common turn-final feature of the questions (cf. Anttila, 2008). Questions with final rising or level intonation have similar functions in the conversations as Strömbergsson (2012) have described for Sweden Swedish. Consequently, intonation in Helsinki Swedish questions is used in ways that both resemble Finnish and Sweden Swedish.

In Example 1 (line 2), a yes/no-question is used to request information about whether the other participants do watch a certain TV-series. The question gets two latched answers in the affirmative (lines 3, 4). The question introduces a new sub-topic inside the current topic "TV-series".

### Example 1<sup>1</sup>. *Fat man (Sewing Circle)*

01 M: ne utan di åker omkring där å de e  
*no but they drive around there and it is*

vackra scenerier å sånt.  
*beautiful scenarios and such*

02 A: **nåmen brukar ni titta på Hund begraven.**  
*but do you regularly watch Jake and the Fat man*

03 T: =[jå:å?  
*ye:es*

04 E: =[jå?  
*yes*

The intonation contour of the question is level until the focal accent, which is produced as a pitch peak (cf. fig. 1). The final intonation is falling. The intonation contour resembles type 4) in Iivonen (1978), but the level stretch is not so high. Questions with this pitch patterns are regularly used to introduce a new topic in the conversation. Hence, the crucial feature for the

<sup>1</sup> Analyzed in Huhtamäki (2012).

choice of intonation contour is not only the syntax of a question, but its function. There is not one intonation contour used for yes/no-questions and one used for wh-questions in the data. The contour described for wh-questions in Finland Swedish by Kuronen and Leinonen (2010) is not frequent in the data, not in wh-questions, nor in other types of questions.

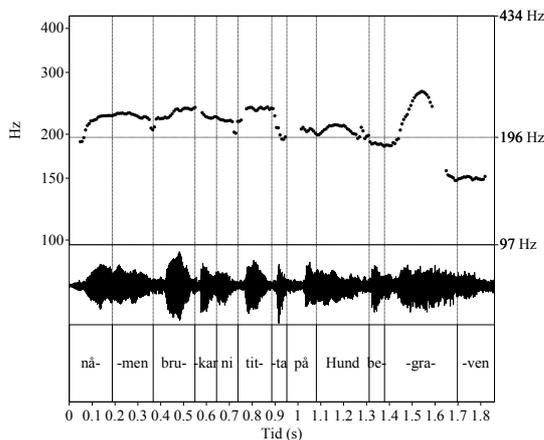


Figure 1. Pitch trace and waveform of the question “nåmen brukar ni titta på Hund begravnen” (female speaker).

Furthermore, questions have many functions in the studied conversations, ranging from seeking information, seeking confirmation, initiating repair, introducing a new topic, mobilizing a response and expressing an affective stance (cf. Drew & Couper-Kuhlen, 2014; Halonen & Sorjonen, 2008; Heritage, 2012; Labov & Fanshel, 1977; Schegloff, Jefferson, & Sacks, 1977).

There is no direct relationship between the intonation contour of a question and its function. Instead intonation is used to distinguish between utterances inside the category of questions. Intonation contour does rarely contribute to the function alone, but together with syntactic and lexical features of the question, as well as its sequential placement and the epistemic relations between the participants.

Final rising or level intonation is for instance used to signal a trouble in a previous turn, that is, for repair initiation (cf. Anttila, 2008; Iivonen, 1978 on call for repetition in Finnish; cf. Strömbergsson et al., 2012 on backward-looking *vad* in Sweden Swedish). However, also other features in the utterance and the sequence may contribute to this function, for example the use of the question-word *va* ‘what’, repetition of

an element of the previous turn, and final discourse markers, like *då* ‘then’.

In Example 2 (line 2), the question-word *va* together with the initial discourse marker *aj* ‘oh’, and the final discourse marker *då* ‘then’ are used to initiate repair on a previous turn (line 1). One repair-solution is performed in overlap with the repair-initiation (line 3), and another repair-solution after that turn (line 4). Both repair-solutions give more information about whom Johanna is talking, treating the trouble as being about an underspecified referent (cf. Egbert et al., 2009).

Example 2. Not me (College Language)

- 01 J: de: int jag.  
it's not me
- 02 S: **aj va [då?**  
PRT what PRT
- 03 A: [de: Mia.  
it's Mia
- 04 J: Mia å Sandra;  
Mia and Sandra

The intonation of the question is globally falling with a turn-final rise over a small pitch span (fig. 2). This contour resembles type 6 in Iivonen (1978).

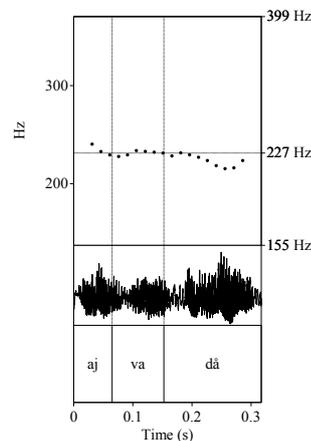


Figure 2. Pitch trace and waveform of the repair initiator “aj vadå” (young female speaker).

Similarly, an affective stance may be shown with a question that has a wide pitch span and possibly final rising intonation over a wide pitch span (cf. Iivonen, 1978 on astonishment in Finnish). Also here, other features contribute to the function, like some piece of surprising news or a previous utterance expressing a stance, the

verbal form of the question (e.g. *varför* ‘why’), as well as the repetition of an element of the previous utterance.

In Example 3 (line 3) a noun-phrase is used for checking the information of a previous turn and showing an affective stance towards it. A group of young people are discussing that one student failed the music class in school. Jocke displays his disbelief against that fact, and continues in his later turn to explicate his stance (line 6).

*Example 3. Failed in music (Summer Camp)*

01 S: å nån fick ju (.) nån fick ju underkänt också i de.  
and somebody failed (.) somebody failed in it

02 Ja: f [ick den. (.) vem]  
did it (.) who

03 Jc: [i MUSSA. ]  
in music

04 M: [[Eva Alén säkert,  
Eva Alén certainly

05 Ja: [[vem. ((skratt))  
who ((laughter))

06 Jc: på riktigt man måst va en riktigt kråka fö de,  
for real you really have to be a crow to do that

The question is characterized by great pitch movements (fig. 3). Pitch rises on the stressed syllable over a wide pitch span towards the top of the speaker’s pitch range and falls at the end. This type of contour is described by Anttila (2008) as rising-falling.

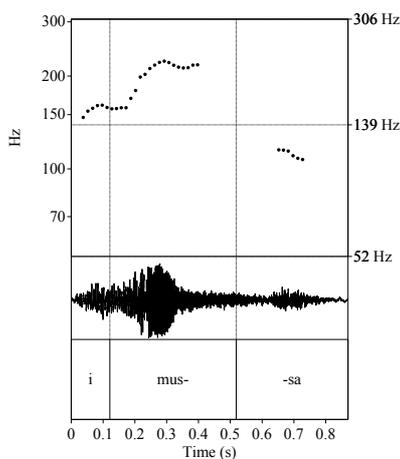


Figure 3. Pitch trace and waveform of the stance-taking question “i mussa” (young male speaker).

The examples above show some of the functions and intonation contours of the questions in the Helsinki Swedish data. There are also other contours used in different functions in the data. The examples demonstrate how several features take part in the function of a question, of which intonation contour is but one feature.

## Conclusion

The results display that various intonation contours are used in questions in Helsinki Swedish. Also functionally, the questions form a heterogeneous group.

The intonation contour contributes to the function of the questions in a specific context. Intonation contour is together with other features in that context used for designing questions with specific functions. Hence, intonation contour is not a means to signal question-mode as a sentence-type. Instead, it works as a contextualization cue (Gumperz, 1982). By this, I mean that an intonation contour get its meaning and contributes to the meaning of a question in its context. Therefore, the meanings of intonation contours are not intrinsic, but context-dependent.

The results also support the conception that Helsinki Swedish intonation resembles both Sweden Swedish and Finnish intonation. As for those languages, falling intonation dominates in the data. Intonation contours with final rising and level intonation are shown to have similar functions as in these languages. Further comparisons between Finland Swedish, Swedish Swedish and Finnish are welcome.

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## Transcription symbols

- .
  - ?
  - ,
  - syllable
  - [word]
  - [[word
  - (.)
  - (0.5)
  - (( ))
- final falling intonation
  - final rising intonation
  - final level intonation
  - stressed syllable
  - start and end of overlap
  - simultaneously beginning turns
  - short pause
  - measured pause
  - transcriber’s comments

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