The DanTIN project – creating a platform for describing the grammar of Danish talk-in-interaction

Jakob Steensig,1 Karen Kiil Brøcker, Caroline Grønkjær, Magnus Glenvad Tind Hamann, Rasmus Puggaard Hansen, Maria Jørgensen, Mathias Høyer Kragelund, Nicholas Hedegaard Mikkelsen, Tina Mølgaard, Henriette Folkmann Pedersen, Søren Sandager Sørensen, Emilie Tholstrup

Department of Aesthetics and Communication – Linguistics
linjs@hum.au.dk

Abstract
The article introduces a new website, samtalegrammatik.dk (‘grammar of talk-in-interaction’), it describes the methods used for constructing the website, and it provides descriptions of three new grammatical phenomena in Danish talk-in-interaction. The website is a result of investigations carried out by the research group DanTIN (‘Danish talk-in-interaction’) since 2009. Until 2013, the group has published analyses of quite diverse phenomena, such as different versions of the word hvad ‘what’ that seem to belong to different word classes and have different functions in talk-in-interaction, the distribution of the hesitation marker øh(m) ‘uh(m)’, or different word orders after the conjunction fordi (‘because’). These phenomena were selected because they were clearly different from written Danish. By launching the website samtalegrammatik.dk the group takes a step towards building a comprehensive grammar of Danish talk-in-interaction. It offers a template for a description of all aspects of the grammar of Danish talk-in-interaction, even though at the time of the launching only a little part of the entries will be filled in. The idea is that the investigations will be continued in many years to come, and, thus, the website will grow and become more complete. The three phenomena reported in some detail here all have intonation as an important part of their grammatical descriptions. They are (1) the particle nå (roughly ‘oh’), (2) exaggerated pitch as a story ending device, and (3) the interjection ej, which is an intranslatable exclamation word.

1 Jacob Steensig is the corresponding author.
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1. Introduction

In this article, we will first introduce the DanTIN project and the concept behind the new website samtalegrammatik.dk ('grammar of talk-in-interaction'), which will be the platform for constructing a comprehensive grammar of Danish talk-in-interaction. After this, we will report on three new investigations into grammatical phenomena in Danish interactional language, which – together with other results on such phenomena – will become part of samtalegrammatik.dk: (1) different versions of the response particle nå (roughly ‘oh’), (2) the use of exaggerated pitch as a story-ending device, and (3) the particle ej (no unambiguous translation possible, see description below) and its uses.

Common to all investigations and publications of the DanTIN project, including the website, is that all phenomena are found in, and described on the basis of, recordings and minute transcriptions of "naturally occurring" interactions. We use data from the publicly available "Samtalebank" and from our own corpus of interactions at Linguistics, Aarhus University (LingAU). Our methodology is based on conversation analysis, which means that we base our analyses on the observable behavior of interactants and argue that the phenomena and regularities we describe are part of the interactional repertoire of Danish interactants (see more in Steensig 2010, Brøcker et al. 2012, Hamann et al. 2012, Stivers & Sidnell 2013).

1.1 First phase of DanTIN: countering the "written language bias"

The utterances that people use when participating in interaction often differ grammatically from the utterances found in written language. Most grammatical descriptions tend to reflect the written language rather than the spoken one used in interaction. They suffer, in other words, from what Linell (2005) calls the "written language bias".

In 2009, a group of students and a researcher at Linguistics, Aarhus University, formed a research group, DanTIN (Danish talk-in-interaction), whose aim it is to describe the grammar of Danish as it is used in interaction. We have earlier (e.g., at the SJUSK 2011 symposium) presented
analyses of a limited number of constructions from spoken interactional Danish. These analyses have been reported in a number of publications (see below) and we have also popularized some of them at sprogmuseet.dk (Steensig et al. 2011 and references below). The basis for our descriptive work has been to locate and describe phenomena in a corpus of recordings of naturally occurring Danish interactions. In the beginning, we chose phenomena that struck us as differing from the written language in one way or the other. This yielded descriptions of the following features:

1. Danish talk-in-interaction differs between **four versions of hvad**, the Danish word for 'what', where the written language has only one. We established that they had different distributions and interactional functions (Brøcker et al. 2012; Jørgensen 2011). To our knowledge this phenomenon had not been described before.

2. **The first constituent in Danish** clauses is very frequently "doubled", so that it begins with a full referential phrase, the content of which is then repeated with a pronoun or other "pro-word". This construction has been reported and researched before, but we argued that this is the normal pattern in Danish talk-in-interaction when clauses begin with non-anaphoric elements, and we were able to point to regularities informing the choice between this double form and the (much less frequent) form with only one constituent in the beginning (Hamann et al. 2010; Hamann et al. 2011; Brøcker et al. 2012).

3. After **the Danish fordi**, 'because', there is a systematic choice between main clause word order and subordinate clause word order. This has been established for utterances in interaction before, but our studies developed this by suggesting a continuum of "integration", with subordinate clause word order as the most integrated, main clause word order as less integrated, and cases with main clause word order and different elements inserted between fordi and the clause following it as the least integrated. Again, we spotted interactional functions tied to these different forms (Mikkelsen 2010, 2011; Brøcker et al. 2012; Hamann et al. 2012).
4. **The hesitation marker** øh(m) (’uh(m)’) is not placed randomly in utterances and can have a number of interactional functions (Hamann & Lange 2011; Brøcker et al. 2012; Hamann et al. 2012). In the context of Danish, such potential regularities in the use of hesitation markers have not been described before.

5. **The so-called "copula" verb, er (’is’)** can be dropped in Danish talk-in-interaction. Reduction of this verb has been analyzed before, but we showed that it is often dropped altogether. We pointed to some of the contexts where this could happen, but we have not yet been able to establish more precisely if "copula drop" has interactional implications (Hamann et al. 2012).

6. **The past tense suffix of so-called weak verbs**, which in written language is -ede (similar to English '-ed'), has different realizations in Danish talk-in-interaction. In a pilot study, we established that the use of the version with the "soft d", [ð], could be used interactionally, to initiate word searches (Hamann et al. 2012). To our knowledge, this has not been suggested before.

In this phase of the project, we have been able to establish (1) that there are phenomena in Danish talk-in-interaction that differ considerably from the written language and from earlier descriptions and (2) that our method can yield results. The disadvantage of our approach up to this point has been that it resulted in a number of rather independent descriptions, the systematic use of which is difficult. We have, therefore, started the next phase of the project: The construction of a comprehensive grammar for Danish talk-in-interaction.

### 1.2 Second phase of DanTIN: constructing a comprehensive grammar of Danish talk-in-interaction

It was partly the conference call for the SJUSK 2013 symposium that gave us the final impetus for venturing into the rather ambitious project of constructing a comprehensive grammar of Danish talk-in-interaction. In the conference call, the organizers talked about 'the challenges' that
'contemporary speech habits present to language theory'. We had been proceeding rather atheoretically and produced descriptions of isolated phenomena, but our discussions, readings and experience convinced us that we could take a next step and make a more coherent, and possibly also more theoretically informed, description. We were also inspired by the publication of the reference grammar, Grammar of the Danish Language (Hansen & Heltoft 2011) and the initiative to construct an online "dictionary of spoken Danish" (Hansen & Hansen 2012, ODT).

Our concept, then, is to launch a website with a list of contents that is indeed comprehensive, in that it attempts to cover all aspects of a grammar of spoken, interactional Danish. But at the outset, only parts of it will be filled. The rest of the grammar will be constructed step-by-step and, hopefully, in a close dialogue with other researchers and users of the site.

1.3 Samtalegrammatik.dk
We will launch the website samtalegrammatik.dk on October 25, 2013. The intended audience is students and researchers of language and interaction, as well as language teachers and others who need concrete and applicable descriptions. Therefore, all entries will consist of a short description, written in an accessible style, with one or two examples of the phenomenon in question. On top of this, the entry will refer or link to more in-depth descriptions and analyses, both those produced by the DanTIN group and by others. The basic language of the website will be Danish, but we aim at producing an English version of all entries simultaneously with uploading descriptions in Danish.

1.3.1. Structure and theoretical assumptions
Our theoretical and methodological starting point is conversation analysis and interactional linguistics (Kern & Selting 2012; Mazeland 2013). This implies that we base all analyses on recordings and transcriptions of "naturally occurring" interactions (interactions that are part of people's everyday lives and not done just for the camera), that we assume that everything people do in interaction may be orderly (even when it seems disfluent or chaotic), that we attempt to use participants' own interpretations of what is going on as the basis for our analyses, that we see social action (what people do with what they say) as the driving force behind languaging, and that
we view linguistic constructions as something that potentially involves different "layers" (phonology, morphology, syntax, gesturing, etc.).

This "open" approach to linguistic regularities works well for finding and analysing isolated phenomena, but it presents a challenge when it comes to presenting our results in a coherent and accessible manner. Our solution to this has been to make it possible to access all the entries through two entrances, one, called "Forms", with a structure very much like a traditional grammar, and another, called "Actions", which lists social actions. In Figure 1 you can see a test version of the opening page, which illustrates this.

The "Forms" entrance lists linguistic units from smaller to larger ones. It contains traditional reference grammar items, such as sounds, morphemes, parts of speech, etc., but also unit types that are specific to talk-in-interaction, such as "discourse units" (Houtkoop & Mazeland 1985, Steensig 2001, 2011a) and "other forms of expression" (mainly non-verbal units).

The "Actions" entrance follows the logic of "sequence organization", as this concept is understood in conversation analysis (Schegloff 2007; Sti-
vers 2013). We have divided the entries into (a) "First pair parts/initiating actions", (b) "Second pair parts/responses to initiating actions", (c) "Third parts/sequences closing actions", and (d) "Other actions". The reason for choosing this approach, rather than, for instance, a speech act approach (Searle 1976; Hansen & Heltoft 2011: 44–51) is both theoretical and practical. The classification of speech acts builds on postulates about speakers' intention – something that our approach tries to avoid. This is not because we do not believe that people have intentions, but because intentions are not analytically available when we study recorded talk-in-interaction. A classification in terms of sequence organization is based on what utterances are taken to do. Do they ask for specific responses, do they carry out requested actions, etc. In this type of analysis, the position of an utterance and the response it receives are main factors in understanding what it does. More practical reasons for choosing this approach are that there are already useful descriptions of linguistic phenomena in talk-in-interaction that are based on this approach (for instance, Emmertsen & Heinemann 2009, Femø Nielsen 2002, Heinemann 2005, 2006, 2008, 2009, 2010, Heinemann et al. 2011, Steensig & Heinemann in press), which can be incorporated into our grammar, and that a division into initiating and responding actions will be useful from a teaching perspective (Steensig 2011b).

1.3.2. An example on how to use the structure
As mentioned above, we have found four functionally different versions of the word 'what' in Danish talk-in-interaction. There are, correspondingly, four entries with descriptions of the grammar (form and function) of these four "words". These can be accessed from both the "Forms" and the "Actions" entrance. For the sake of simplicity, we shall limit ourselves to talking about two forms: hva ('what1'), and hvar ('what3'). The former is an interrogative pronoun, and will, therefore, be found under pronouns in the "Parts of speech" part of the "Forms" entrance and in the "Syntax" part as one element in wh-interrogative constructions. The latter ('what3') is a free-standing open class repair initiator (Drew 1997; Schegloff, Jefferson & Sacks 1977). It is only used on its own, to indicate that the speaker found something wrong with the previous utterance and requests that it gets repaired. As such, it will be found under interjections under "Parts of
If we look at these two words from an "Action" perspective, hvar (‘what3’) will be found under "First pair parts/initiating actions" – more specifically under the sub-heading "Other-initiated repair initiation". Hva will not have a link of its own in the "Actions" entrance, but it will be found under at least the following sub-headings of "First pair parts/initiating actions": "Other-initiated repair initiation" in the construction hva siger du (‘what are you saying', 'pardon'), and "Requests for information", "Challenges", in wh-constructions.

1.4 Process and collaboration
Before the launch of samtalegrammatik.dk, we will complete as many as possible of the entries that we have already worked on or that others have investigated. From then on, we will expand the description by adding results of new investigations that we carry out ourselves or that we get to know about. But we also hope that others will help us, by contributing results themselves, pointing to research we don’t know about, or discuss, object to, correct etc. our descriptions. All pages on samtalegrammatik.dk will have a "Contribution" button, which leads to a page explaining how you can contribute to the grammar, and we hope that researchers, students and language learners and teachers will make use of this option.

We have, thus, sketched the overall framework of samtalegrammatik.dk. We will now proceed to some of the contents of the project, by presenting three phenomena that we are currently studying. In the presentation we will present examples in much the same way as we do at samtalegrammatik.dk, that is, we present examples that illustrate regularities that we have found in larger collections of data. The examples are transcribed with conversation analytic conventions, an overview of which can be found in an appendix.

2. The meaning of the Danish particle nå (‘oh’)  
Much has already been written on the Danish interactional particle nå (e.g Femø Nielsen 2002, Heinemann 2009, Emmertsen & Heinemann 2010, among others), but little has been said about its prosodic features. We have found that they are very important when establishing the meaning in particular contexts, and here we present preliminary results of our investigations into this topic.
Nå is relatively similar to the English particle oh, but with more uses: Femø-Nielsen (2002) distinguishes 30 different uses of oh, and 46 different uses of nå, with a substantial amount of overlap. Jefferson (1978) describes oh as a disjunct marker in interactional storytelling, and Heritage (1984a) calls it a cognitive change-of-state marker. This term is applicable to nå as well. Heritage has investigated oh both as a free-standing particle (1984a) and as a proclitic particle in different types of constructions (Heritage 1998, 2002), and the work he has done on the particle appears very definite. But he does not say anything about the general features of the phonetics of the particle.

For such a description, one must turn to Local (1996), which very thoroughly describes the phonetics of oh in different contexts. Local emphasizes the importance of not simply assigning meaning to pitch contours, but to base assumptions on the interactional behavior of the participants in the conversation (1996: 179), a procedure that has been important to the current project as well. The specific prosodic features that he attributes to freestanding news-receipt ohs are very different from the ones we have found for nå. While free-standing news-receipt oh is "always pronounced with falling pitch movement" (ibid: 182), nå news-receipts are generally pronounced with rising pitch movement (see below).

Rather little is known about the prosody of Danish talk-in-interaction. Grønnum & Tøndering (2007) claim that a global intonation contour may reflect a function, such as a "question intonation", but no research has been published on the potential meaning of the prosody of single word units consisting of only one syllable.

A lot of what has been written on nå has focused on the different proclitic functions, including the constructions in which it appears. For example, Emmertsen & Heinemann (2010) investigate the combination of nå + ja. Our investigation concerns only the free-standing nå, which gives us a good opportunity for studying the relationship between prosody and interactional meaning.

2.1 Results
Our results indicate that free-standing nå with a rising intonation and free-standing nå with level intonation do in fact have two different meanings. The prosody seems to be able to alter the meaning of this specific particle.
We have listened through 2 hours of conversation in which we found 62 instances of free-standing nå; 30 examples of nå with level intonation and 32 with rising intonation. Table 1 shows the distribution of the two nås. As can be seen from the bottom row, the vast majority of the level intonation nås are general continuers. Only a few are to be found in the answer receipt column. This indicates that level intonation nå is overwhelmingly used to communicate that a previous speaker can continue.

The results in Table 1 tell us that there is a significant majority of nå with rising intonation in both the "answer receipt" column and in the "information receipt" column. A third of the instances of nå with rising intonation are information receipts and almost two thirds of the nås in this row are answer receipts. There is only one instance of nå with rising intonation in the "continuer" column. We see that nå with rising intonation is generally used either to express that a piece of information has been received or to acknowledge that an answer to a previous question has been given.

There was a significant association between the type of intonation and interactional function ($\chi^2 = 48, p<.001$).

Table 1. Sequential distribution of nå-tokens.

<table>
<thead>
<tr>
<th></th>
<th>Continuer</th>
<th>Answer receipt</th>
<th>Information receipt</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rising intonation</td>
<td>1 (3.33%)</td>
<td>19 (63.34%)</td>
<td>12 (33.33%)</td>
<td>32 (100%)</td>
</tr>
<tr>
<td>Level intonation</td>
<td>27 (90%)</td>
<td>3 (10%)</td>
<td>--</td>
<td>30 (100%)</td>
</tr>
</tbody>
</table>

2.2 Level intonation

To illustrate our findings, we have picked two examples from our data. The first shows a level intonation nå token (see pitch contour in Figure 2). This token is pronounced with a near-open centre vowel [a]. Heritage (1984a) mentions a similar oh only in passing.

In the first example we meet Asta and Lis. Asta is telling Lis about some Ukrainian agricultural students working and living with a farmer of their mutual acquaintance.
In lines 4 and 7, Lis uses *ja:* ('yes') as a continuer (Schegloff 1982), signaling that she is paying attention and that Asta may continue her story. Before line 12 Lis has been told about a specific student, a 'very bright girl'. In line 12, Lis uses level intonation *nå* as a continuer, similar to *ja:*, and as we can see in line 14 after a short break, it is also treated as such. The break in Asta’s story (line 11) requests a sign that Lis understands what she is saying and that she is still paying attention.

Our data show that these level intonation *nå* continuers can be used both in overlap with the other speaker to affirm that its speaker is still paying attention. The overlapping tokens are similar to the 'yes' tokens in the example.

\footnote{In cases from the publicly available corpus, "samtalebank", you can click the name of the conversation. This will bring you to the place on the website where the transcript (linked to the raw file) is situated. You will then need to locate the lines yourself.}
This *nå* token is approximately in the centre of the speaker, Lis’, pitch register (see Figure 2). Most of the *nå* tokens with continuer function are pronounced at this pitch level or slightly higher in the speakers’ registers.

![Figure 2: Nå in ex 1, line 12.](image)

### 2.3 Rising intonation

In the second example, we will consider the usage of *nå* with rising intonation. As we have seen in Table 1, *nå* with rising intonation is generally either an answer receipt or an information receipt. The excerpt contains both functions. This *nå* with rising intonation, [nÅʰ↗], is pronounced as a short advanced open back vowel and it is often aspirated.

Again we will look at the conversation of Lis and Asta. In this part, Asta is beginning her story, telling Lis about the Ukrainian agricultural students.

(2) [Samtalebanken | Sam2 | Samfundskrise | (community crisis) 1043-1061]

1. **AST:** fordi de har jo oss øh: dyr arbejdskraft men nu har de så været
   
   because they also have uhm expensive labour but now they have been

2. **helidige å få sån nogen s:studere fra u- ukraine eller**
   
   lucky and gotten some students from ukraine or

3. **landbrugsstudere:**
agricultural students (1.0)

4 AST: som [bor ]
who live
5 LIS: [kars]ten [å: ]
karsten an':
6 AST: [ja:]
yes
7
8 (.)
9 AST: som [bor] nede i deres øh:m
who live down in their uhm
10 LIS: [nå:]%
NÅ ((rising intonation))
11 AST: de har bygget nyt stuehus
they have build a new farmhouse
12 AST: å så ·hhhh i den (.). længe der hvor de havde haft bolig.
and in that (. ) wing where they had had their residence
13 (0.4)
14 LIS: mm[: ]
yeah
15 AST: [der] er (. ) de så kommet til å bo%
there have (. ) they then ended up living
16 (0.4)
17-LIS: nå%
NÅ ((rising intonation))
18 (0.4)
19 LIS: ne:j de[t var fi:nt]%
well that is nice

In line 6, Lis asks Asta to confirm the identity of the person she is talking about, by mentioning his name. Asta immediately confirms (line 7), after which Lis receipts this answer with a rising intonation nå (line 10), which happens to occur in overlap with Asta's continuation of the story (line 9). After Asta tells the part about the building where Karsten used to live, Lis produces mm:, a continuer similar to the uses of nå that we saw in example (1). Asta finishes the story in line 15, and Lis now produces an information receipt, a rising intonation nå (line 17) after a short break, thus signaling that the information Asta has provided is understood.

Figure 3 shows the contour of nå in line 17 in example (2). We see here that the rising intonation nå token has its starting point at a relatively low point in the speaker's register. It then rises to and finishes at a relatively high point. However, the rising nå appears in different places in the registers of the speakers in our data, the general feature being that there is a clearly discernible rise in intonation.
According to Femø Nielsen (2002), adding a rising intonation to nå used as an answer receipt or an information receipt means that the nå also indicates a positive surprise from the utterer. Our data show Lis doing this in both line 10 and 17 of our second example.

To summarize, our data clearly suggest that there is a connection between the intonation used for a free-standing nå token and its meaning. We believe this might be the case for other interactional particles as well, e.g. ja ('yes') as used in example (1), though this hypothesis is still untested.

So far, we have not systematically investigated phonetic factors apart from intonation, but we do not think that doing so would change our general results. We remain agnostic about the role of global intonation in longer utterances, but we do call for more recognition of the interactional importance of local prosody in single syllable utterances.

The next phenomenon operates at a different level than the single word level, but we still see prosodic features as central.
3. Exaggerated pitch as a story-ending device

Ordinary everyday interaction is characterized by turn-taking, and speakers employ a very fine-tuned knowledge of when they are supposed to speak. In this way, ordinary conversation can be seen as structured on a turn-by-turn basis (Heritage 1984b: 259). One exception to this, however, is storytelling. Whereas conversation is normally structured on a turn-by-turn basis, in story-telling the story-teller has the floor for a longer stretch of talk (Jefferson 1978; Sacks 1992: 222). It is therefore interesting to investigate which interactional resources interlocutors employ in signaling that the story-telling activity has ended and that ordinary turn-by-turn structured conversation can be resumed – what Jefferson calls a story-ending device (1978: 244). In this paper we will demonstrate how exaggerated pitch in reported speech can be used as a story-ending device by highlighting the punchline of the story (cf. Sacks 1974: 347).

Example (3) below is taken from a conversation between two women in their early twenties – Anne and Beate. They are discussing how they were supposed to have gone out together in the past weekend. However, due to miscommunication between the two women, this never happened. Prior to example (3), Beate has produced an account for the events of the weekend to which Anne does not agree. Anne therefore initiates a story starting in line 1 below.

(3) [Talkbank | Samtalebank | Sam2 | anne_og_beate (anne and beate)| 137-170]

1 ANN: du: tog hjem ☺ sagte☺
   You went home and said
2 ANN: så kom hjem til mig
   then come over to my place
3 ANN: så sidder vi å drikker der✈
   then we’ll sit and drink there
4 ANN: så ringer jeg til dig✈
   then I call you
5 ANN: Beate skal jeg komme hjem til dig.=
   Beate should I come home to you
6 ANN: =nej vi: er de er er allesammen gårˌt
   no we’ve they have all left
7 ANN: så jeg rager ned✈ til mine senpaier✈
   so I’m going to down to my senpais
8 (0.3)
9 ANN: og så tænkte jeg okay
   and then I thought okay
10 ANN: så du skal stadig komme anne✈
so you should still go Anne
11 ANN: okay det er fint jeg skal bare have noget at spise
okay that’s fine I’ll just need something to eat
12 ANN: så hh hva jeg så siger til dig
and then what I tell you
13 ANN: hh i kan bare gå derned det er helt i orden
you can just go that’s fine
14 ANN: hh men bare lige ting hvis i går
but just call me if you leave
15 ANN: fordi jeg gider ikke gå ned på lux
because I don’t want to go to Lux alone
16 ANN: hh så
and then
17 ANN: h så siger du nej men jeg er stadig bare skynd dig
and then you say no but I’m still just hurry
18 ANN: hh så (.) gør jeg mig klar,
and then (.) I get ready
19 (.)
20 ANN: ser lidt bedre ud end jeg gjorde hehehe
look somewhat better than I did before
21 BEA: hhn hhn hhn
22 ANN: fik lige jeg mig klar
just got ready
23 ANN: hh så (0.3) ringer jeg til dig
and then (0.3) I call you
24 ANN: så råber du bare
and then you just shout
25 ANN: vi: taget på LU:x
we’ve gone to Lux
26 (0.6)
27 BEA: ((cough))
28 BEA: (h) jeg stod inde
I was in
29 (0.2)
30 BEA: jeg stod inde ved jakker jeg havde jeg havde just laid down my jacket
31 (0.4)
32 BEA: så ringer du
and then you call
33 BEA: jeg kunne over ho:vedet ikke høre hva du siger
and I couldn’t at all hear what you are saying
34 BEA: hhhhh
35 BEA: så siger du vi er på Lux så siger du
and then you say we are at Lux and then you say
36 BEA: ja: h
yes
37 BEA: sh prøv лиге: komme å: å hent mig
could you come and pick me up
38 ANN: na:j [met var ikke der]
no that wasn’t there
39 BEA: [og jeg var лиге kommet ind]
We are here especially interested in lines 25, 36, and 37 which we will deal with in turn. As we will demonstrate, they are all uttered with a significantly higher pitch than the preceding utterances and likewise significantly above the respective speaker's normal register. This point is illustrated in Figures 4 and 5.

In Figure 4 we see an image of the utterance preceding line 25 (line 24: å så råber du bare, 'then you just shout'). We see that the utterance lies within the speaker's register (between 154 and 393 Hz).\(^3\) This is clearly not the case for line 25 as illustrated by Figure 5.

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\(^3\) Speakers' pitch registers have been measured by taking one minute of non-overlapped talk by each speaker, cleaning it of noise, and measuring the top and bottom of the pitch contours in Praat.
Figure 5. Ex 3, line 25.

Figure 5 shows how the utterance in line 25 ("vi: taget på LU:x", ("we've gone to Lux")) lies well above the speaker's register. In fact, this is a full octave above the speaker's register. As we have shown, line 25 is evidently produced with a significantly higher pitch. We will now turn to look at the interactional function of this use of high-pitched voice in the interaction.

As indicated by line 24, line 25 is presented as a report of something Beate has said. Reports of Beate's talk also occur in lines 2, 3, 6, 7, 10, and 17. However, in none of these instances do we see a similar use of the high-pitch voice employed in line 25. Also, the reports in lines 2 and 3 and 17 are marked as reports by utterances using the verb sige ("say") - as in du: tog hjem @ sådage®("you went home and said") in line 1, and så siger du ("then you say") in line 17. In line 24 leading up to line 25, Ann uses the verb råde ("shout"), à så råber du bare ("and then you just shout"). The use of råber ("shout") rather than siger ("say") can be seen as a build-up to the
punchline of the story in line 25. In this way, it can also be argued that råber projects the use of high pitched voice as an imitation of Beate's alleged shouting in the situation being reported.

At the same time, line 25 presents an unexpected twist to the story, which also adds to its punchline status. This can be seen from lines 13 to 17 in which Ann presents an agreement between herself and Beate about meeting up before going to Lux. From line 25 we gather that this agreement clearly did not hold. Also, the use of exaggerated pitch portrays Beate as having acted out of control in the reported situation.

In this way, Ann's utterance in line 25 insinuates that Beate is accountable for the miscommunication between the two. It should, however, also be noted that Anne is smiling during line 25. She hereby indicates that the story has "laughability potential" (cf. Ruusuvuori 2012: 346). The smile is reciprocated by Beate who also starts smiling during line 25. This means that, although the two interactants are disagreeing, the discussion should be seen as a playful activity and not as something threatening their relationship.

Following line 25 is a pause of 0.6 seconds. This should be considered only a pause of verbal activity, as it is used by Beate to look down and bring her left hand up towards her mouth before coughing in line 27. At this point in a narrative an assessment of the story would typically be expected (Jefferson 1978: 244). Instead, however, Beate starts a second story indicating that she does not affiliate with the punchline put forward by Ann's story. Here too, we see Beate making use of exaggerated pitch in the lines 36 and 37. This is shown in Figure 6, below, which can be compared to Figure 7, displaying the pitch of line 35, that is, the utterance that precedes the report in lines 36–37.

To a large extent the use of exaggerated pitch in lines 36 and 37 has the same function as in line 25. It highlights the utterance as the punchline of the story. Like in line 25, both Ann and Beate start smiling towards the end of line 37, indicating a mutual appreciation of the laughability potential of the story. It is also interesting to note how Ann disaligns with the point of the story in line 38. Hereby, she indicates that she understands the story as having finished even though Beate continues to elaborate on the story in overlap (cf. line 39). This demonstrates how exaggerated pitch can function as a story-ending device.
The last of our phenomena is again a single word utterance, and again intonation and its correlation with interactional function is in focus.

4. The Danish interjection *ej*

Not much has been written on the Danish interjection *ej*\(^4\), despite the fact that this interjection is used quite often in spoken Danish. *Ej* can be pronounced short or prolonged, and it can be used either in constructions or as a free-standing token.

\(^4\) We are aware that *ej* in its spelling becomes homograph with the Danish negation *ej*, but we believe this is the best standardized version of the options for transcription of the great amount of differently pronounced variants that occurs in spoken Danish. Ord-net.dk has made this choice of spelling as well.
There appears to be a connection between the pronunciation of *ej* and its function. The forms of *ej* that we have found in our data either initiate an utterance, or are free-standing. We shall look at both types here.

In example (4) we see in line 95, that *ej* initiates an utterance. In line 96, *ej* occurs in what seems to be last unit position, but a closer look reveals that it is actually a free-standing unit in a quotation. In line 96, Astrid quotes her own reaction to an inappropriate word said by a child at a birthday party the weekend before.
Based on our collection of ej, we have classified the use of this interjection into three groups: Ej as an assessment initiator, ej as an independent assessment, and ej as a topic change marker. In the following we will give examples of the three groups of ej and their functions.

### 4.1 Short ej: Assessment initiator

The short version of ej appears very often in spoken Danish. This version of ej always initiates a longer utterance. The type of utterance that this ej initiates is often an assessment, and this is also the use found in the following example:

(5) [Talkbank | Samtalebank | Sam4 | moedregruppen0 (mothers group 0) | 575-583]

575 MIA: "hva var det lige der var" før så
what was it there was before
576 DOR: s::h to højte (.). reoler
eh two tall bookcases
(0.9)
577 MIA: n:åh
oh
578 MIA: så det det der har givet sån [mere åbenhed eller sån
so that is what has made it more airy or so
579 DOR: [så şh::]
so eh::
580 SUS: ej hvor fin\ë
EJ how nice
(0.3)
581 ?: det [rigtig
that's right
582 ?: [sån rig[tig
such/like real
583 ?: [JE' [havde ( )
I had
584 ?: [den blir ikk=
it won't be
585 DOR: [den ku jo godt være blevet førdig i sommer
it could have been finished last summer

In this example, two visitors are viewing the living room of Dorte, where some changes have been made regarding the furnishing. Mia is asking what kind of furniture they had before (line 575), upon which she gets an answer in line 576. Then there is some talk about these changes and that they have
made the room more airy (line 577-579). Sus comments on these furnishing changes by saying *ej hvor fint* 'EJ how nice' (line 580). This utterance is an assessment containing her opinion about the changes. The *ej* is a classical example of what we will call a 'standard assessment initiator' where the *ej* is very short (around 0.11 sec.) with a flat intonation. There is no pause between *ej* and the rest of the utterance. They are spoken as one unit. We have found many examples of this construction and it appears to be a standardized way of marking and initiating an assessment.

Based on this it seems that there is a strong connection between *ej* and the rest of the utterance. The interjection does not necessarily contain so much of the assessment in itself, but rather marks the initiation of the assessment, whereas the assessment is stated in the rest of the utterance.

### 4.2 Prolonged *ej*: independent assessment

*Ej* does not have to be part of a larger construction, but can occur as a free-standing utterance. This is illustrated in the example below, where two young women are talking about children who are using inappropriate words. Here, Bella is telling Astrid about a two-year old girl saying 'saggy tits' about her mother at the mother's sister's birthday party. *Ej* in line 8 is Astrid's first reaction to the inappropriate language use.

(6) [LingAU | Mandarin (tangerines)] 58-68
1 BEL: *og de var oss *bare* (. ) *Mega søde*
and they were also just (. ) very cute
2 BEL: *hende på to hun e::r hun snakker Helt vildt*
the two year old she is she talks a lot
3 AST: *jaer=
yes
4 BEL: *=og hun går bare og så*
and she just goes around and then
5 BEL: *siger hun bare *Hængepatter*
she just says saggy tits
6 AST: *[(nå)]*
[(oh)]
7 BEL: *[n::mor] har hæn[ge]patter;*[mommy] has saggy tits
8 AST: **[e::j::\ (. ) e:j: \]
\[EJ \ EJ]
9 *(0.5)*
10 AST: *[e::jb\]*
\[EJ]
11 BEL: *[::hh ]beh *[og moren har ikk hængepatter]*
(Laughter) and the mother doesn’t have saggy tits
12 AST: *
*det virk-
its real-
As was the case in the previous example, *ej* is used as part of an assessment sequence, but here it is an independent assessment unit. In our data, single *ej* tokens are always used as assessments. Since it is not an initiator of an assessment construction, as the short *ej* is, the single *ej* has to do the job itself, so to speak. To do this, it needs more time and space to express an assessment in only one word. This becomes visible (or hearable) prosodically. Thus, the single *ej* is around 0.5 seconds or more, and has a very marked intonation contour compared to the short *ej*. Usually, this prolonged *ej* starts with rising intonation whereupon it falls again with about 50 Hz. This variation in the intonation supports the speakers attempt to express an assessment in a single unit utterance.

Goodwin (1986) points to an important distinction between recipients' assessments and continuers. Both can occur in the same contextual environment, but they have different functions. According to Goodwin, recipient assessments can occur in overlap with the turn of the speaker, and in this way demonstrate that the recipient relates to what the speaker says. This stands in contrast to continuers, which are used just to show attention and connect the speaker's utterances in his extended turn. In the example above, it is quite obvious how the two *ej* tokens in line 8 serve as assessments, exactly because they relate to the content of what has been told. Astrid does not see Bella's utterance as an initiation of further talk, but as more or less completed. By starting her assessment in overlap with the projected completion of Bella's story, Astrid indicates that she understands where this is going both construction- and content wise. The falling intonation on the *ej* can attend to two things: It can signal the completion of the sequence, but it can also mark the stance that the girl's language usage is quite terrible. We have not yet found examples of free-standing *ejs* used as positive assessments. Thus, we cannot exclude the possibility that *ej* as a positive assessment can have falling intonation as well. So, for now, we can only hypothesize that the falling intonation supports the context dependent negative assessment on bad behavior, and that the free-standing positive assessment would have a rising intonation.

4.3 Medium length *ej*: Topic change marker

In the examples (5) and (6) we saw different usages of *ej* in connection with assessments. The next example illustrates another kind of use. The
length of this *ej* is somewhere in between a short and a prolonged pronunciation (0.22 sec.) and it initiates an utterance too, but instead of marking an utterance, it marks a topic-change. This can be seen in the following example:

(7) [Talkbank | Samtalebank | 225_deller (225 meatballs) | 1334-1344]
1 TIN: å ham der jeg sidder overfor
   and him there I’m sitting opposite of
2 TIN: u: på kontoret han: træt af å ha jø√
   in the office he is tired of having
3 TIN: skærm over på hans bord
   the screen on his table
4  (0.3)
5 TIN: >hha hha hha hha hha hha hha hha hha hha hha<(.)
   (Laughter)
6 TIN: ☹å det går ikk☹
   so it won't work
7  (0.6)
8 MET: ej du ve[d godt at din arbejdsplads ska købe]=
   EJ you know that your workplace has to buy
9 TIN: [jeg har faktisk (her)]
   I have actually here
10 MET: =skærmbriller til dig ‘iggás’√
   screen glasses for you right
11 TIN: jo
   yes

In this example, two women are preparing dinner. They have had a conversation about eyesight and glasses, and Tine has made a joke about moving her screen on to her colleague's desk in order to see it better. In line 8, Mette changes the conversation topic back to only concern glasses. In this utterance there is no assessment. *Ej* is still used as an initiator, but this time it marks a topic-change. The intonation is flat and there is no pause between *ej* and the rest of the turn. What is characteristic about this group of *ej* of medium-length is that they can have other functions than initiating a personal opinion of the speaker.

To summarize, we saw that the prosodic features of *ej* correlated with the particle's interactional function and its position in the turn. This is the first investigation into this particular particle, and much is left to be investigated.

5. Concluding remarks
In this article we have presented the new samtalegrammatik.dk and given a sketch of its logic. We have also presented three new investigations into
grammatical phenomena in Danish talk-in-interaction of the type that \textit{samtalegrammatik.dk} consists of.

In the three investigations reviewed here, the relationship between prosody (especially intonation) and interactional function and position in interactional units was in focus. This is not the case with all the phenomena that are treated on \textit{samtalegrammatik.dk}, though, and our research has not set out to investigate prosody as such. But these studies show that the fact that we are dealing with the spoken medium and that nothing can be said without prosody, plays a crucial role for describing the distributions and functions of grammatical phenomena in talk-in-interaction. Future studies will reveal to what extent correlations between the interactional function of local phenomena and their prosodic features are generalizable to the role of prosody as such.

How prosodic features will be built into the overall system of \textit{samtalegrammatik.dk} is among the aspects that we will hopefully find answers to as we develop the grammar in the years to come.

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**Links**

Hamann, M.G.T. & S.B. Lange. 2011. *Øh – den lille lyd vi alle kender* [Øh - the small sound we all know]. (accessed on 20 May 2013)


Mikkelsen, N. 2011. *Ole kom sent fordi*… [Ole was late because…]. (accessed on 20 May 2013)

Conventions
Our transcription conventions follow Jefferson’s (2004) with a few changes, inspired by the conventions used in Samtalebanken (http://www.talkbank.org/CABank/codes.html):

<table>
<thead>
<tr>
<th>Sign</th>
<th>Description</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>:</td>
<td>Colon</td>
<td>Non-phonemic lengthening of preceding sound</td>
</tr>
<tr>
<td>hun</td>
<td>Underscore</td>
<td>Stress. The more underscore, the more stress</td>
</tr>
<tr>
<td>·hhh</td>
<td>Flying dot</td>
<td>Following sound(s) said on the inbreath</td>
</tr>
<tr>
<td>f[å dem] [jaː→ ]</td>
<td>Square brackets</td>
<td>Beginning and ending of overlapping talk</td>
</tr>
<tr>
<td>↘</td>
<td>Arrow pointing down</td>
<td>After utterance: Intonation goes down at the end</td>
</tr>
<tr>
<td>→</td>
<td>Arrow pointing ahead</td>
<td>After utterance: Intonation stays level</td>
</tr>
<tr>
<td>↗</td>
<td>Arrow pointing up</td>
<td>After utterance: Intonation goes up at the end</td>
</tr>
<tr>
<td>‹</td>
<td>Up-arrow</td>
<td>Before syllable with remarkably high (pitched up) tone</td>
</tr>
<tr>
<td>†</td>
<td>Down-arrow</td>
<td>Before syllable with remarkably low (pitched down) tone</td>
</tr>
<tr>
<td>—</td>
<td>Flying line</td>
<td>Around stretches which are spoken in a high register</td>
</tr>
<tr>
<td>(.)</td>
<td>Dot in parentheses</td>
<td>Micropause: 0.2 seconds or less</td>
</tr>
<tr>
<td>(0.3)</td>
<td>Number in parentheses</td>
<td>Silences, in seconds with one decimal</td>
</tr>
<tr>
<td>lilleb-</td>
<td>Hyphen</td>
<td>Audible &quot;cutoff&quot;, abrupt cessation of sound</td>
</tr>
<tr>
<td>☺</td>
<td>Smiley</td>
<td>Around stretches of smiling voice</td>
</tr>
<tr>
<td>&gt;ord&lt;</td>
<td>Arrow brackets</td>
<td>Around stretches of fast talk</td>
</tr>
<tr>
<td>*</td>
<td>Degree sign</td>
<td>Around stretches of low volume talk</td>
</tr>
<tr>
<td>HALLO</td>
<td>Capital letters</td>
<td>Spoken with high volume</td>
</tr>
<tr>
<td>*</td>
<td>Asterisk</td>
<td>Around stretches of creaky (glottalized) voice</td>
</tr>
<tr>
<td>=</td>
<td>Equals sign</td>
<td>At the end of one line and beginning of another: spoken without any stop in phonation (&quot;latched&quot;)</td>
</tr>
<tr>
<td>(x x)</td>
<td>Parentheses with x'es</td>
<td>Inaudible/Unidentifiable talk</td>
</tr>
</tbody>
</table>