# STRESSED PRONOUNS IN MONO- AND BILINGUAL GERMAN[i]

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## ABSTRACT

We propose two new hypotheses concerning the occurrence of non-focused stressed pronouns in spontaneous spoken German, one referring to the prosodic structure of the spoken utterance, and the other referring to the syntactic structure in which the pronoun occurs. Based on pilot data from a corpus of spoken German by monolingual and bilingual speakers, we show that stressed pronouns occur in a variety of sociolinguistic contexts. They can occur in instances where (i) intonational phrases do not contain lexical categories such as noun or verb, or (ii) they are a complement to a preposition in a prepositional phrase.

Our study contributes to ongoing research on the stressability of (non-focused) pronouns in German. Our hypotheses, of which the prosodically-motivated one is restricted to spontaneous spoken language, will be further tested on a larger corpus.

**Keywords**: stress, accent, pronouns, spontaneous speech, German.

## 1. INTRODUCTION

A corpus analysis of German read speech ([2]) shows that pitch accent distribution among information status categories is highly consistent with the expectation that novel information is accented, whereas given information is deaccented. As for pronouns, they are referentially given, and are therefore considered to be deaccented in German and English, as in (1). If they are focused (e.g. [9, 16]), as in (2), they will be produced with a pitch accent (pitch accents are given in small capitals, nuclear accents are also underlined).

(1) Context: What did she took from him?
Sie hat ihm das TELEFON weggenommen.
(2) Context: Did she took the phone from him or her?
Sie hat [IHM]$_F$ das Telefon weggenommen.
'She took the phone from him.'

For the spoken German radio news corpus DIRNDL, which consists of read speech, [1] confirm that pronouns generally do not occur accented. However, the correlation of information status and prosodic marking that holds in read speech is weaker in spontaneous speech. In spontaneous speech corpora, accented given referents can occasionally be found ([2,4]). In a controlled experiment, [11] even elicited optional pitch accents on pronouns in German which are not licensed by information structure. In a carefully controlled production experiment (4 speakers analysed), [11] tests for the influence of two factors on the stressability of pronouns (focus always leads to accentuation of pronouns and is therefore not regarded further): (i) the phonological size of the pronoun, consisting of either one or two syllables (*ihn* in (3a) versus *ihnen* in (3b)) as a phonological factor, and (ii) the syntactic position of the pronoun (either in front of the infinite verb *beeindruckt* (3a,b), or right-exposed following the infinite verb, (3c)).

(3)
a. Die Intendantin ist von ihm beeindruckt.
b. Die Intendantin ist von ihnen beeindruckt.
c. Die Intendantin ist beeindruckt von ihnen.
'The director is impressed by him/them.'

The findings reveal that there were 20% more pitch accents on bisyllabic pronouns than on monosyllabic ones. Concerning the prominence levels, a division emerged between full prominence accents on disyllabic pronouns (prominence level 2 in DIMA [10]) and less prominent pitch accents on monosyllabic pronouns (prominence level 1 in DIMA).

As for syntactic position, pronouns preceding the infinite verb were more often accented than right-exposed pronouns. Moreover, for pronouns preceding the infinite verb, pitch accents were more often realized as full prominence pitch accents of prominence level 2, whereas for the accents on pronouns in right-exposed constituents, there was a 50-50 distribution between prominence level 1 and 2. Thus, [11] argues that pronouns in German may be optionally phrased as prosodic words. Both phonological size as well as syntactic position of the pronoun may condition a prosodically strong pronoun which is stressed.

The current paper contributes to the debate on stressed pronouns in German in two ways: first, by postulating two additional hypotheses concerning the conditions that may cause prosodically strong, and

hence stressed, pronouns in spontaneous speech in German; second, by taking productions of both monolingual and bilingual speakers into consideration. Whereas the occurrence of stressed pronouns is well-established in spontaneous and elicited speech of German monolingual speakers (see references above), we show here that it can also be found in the German of bilingual speakers with a variety of heritage languages. It can therefore be considered a peculiar but widespread phenomenon of German.

The data which serves as the basis are presented in section 2. The observed occurrences of stressed pronouns presented in section 3 cannot be accounted for by phonological size and/or syntactic position as addressed in [11]. We will therefore propose in section 4 that beyond these factors, stressed pronouns can be licensed by (i) the specifics of intonational structure in spontaneous speech, or (ii), by their syntactic function of complements in prepositional phrases, in which they count as lexical words in terms of phrasing. Section 5 provides a discussion.

## 2. DATA

### 2.1. Corpus

The data analysed for this article form part of a corpus collected in a Collaborative Research Unit, investigating language use by bilingual speakers in Russian, Greek and Turkish heritage settings in Germany and the US (RUEG group 2016/17). Monolingual data are elicited for comparison reasons. We concentrate on the German data here, comprising both monolingual German and dominant German by Russian, Greek and Turkish heritage speakers.

In two pilot studies, naturalistic repertoire data were elicited by means of presenting participants with a fictional incident (e.g., a traffic accident involving a bicycle presented by means of pictures in pilot study I, and an accident involving several pedestrians and two cars presented by means of a video in pilot study II). Participants were instructed to picture themselves as a witness and describe the accident (with pictures as props in pilot I, without any props in pilot II), acting out different communicative situations which covered different modes (spoken/written) and were addressed to different communication partners (police/friend, i.e. formal/informal speech) (for details on methodology, see e.g. [18]). Given our interest in prosody, only the spoken data in the formal and informal setting are analyzed here.

In pilot I, narrations from 3 monolingual German speakers and 3 German dominant heritage speakers of Russian, Turkish and Greek each were collected. Speakers were around 20 years of age. The narrations have an approximate average duration of 60s each (pilot I and II). In pilot II, using the same protocol with a different picture story, data from 8 monolingual German speakers and 4 German dominant heritage speakers of Turkish were collected. Altogether, 9 instances of stressed pronouns occurred which form the basis for the analysis and discussion in sections 4 and 5.

### 2.2. Data screening and annotation

In a first round, the utterances were listened to for accented pronouns by the two authors independently. We found 6 instances of stressed pronouns in the German of heritage speakers (across all heritage languages: 3 Turkish, 2 Greek, 1 Russian). We also found 3 instances of stressed pronouns in the German of monolingual speakers.[ii]

The narrations which contained instances of stressed pronouns were then transcribed and annotated for information status, information structure and intonation. With respect to information status, the Reflex-scheme was used ([3:137]). The stressed pronouns were all labelled as referentially given. Information structure, more specifically focus, was annotated according to the guidelines provided by [6]. None of the pronouns received the label "new" or "focus".

In terms of intonation, the utterances were annotated for intonation phrase breaks (IP; see [7] for procedure), and prominent words. Stressed pronouns were also annotated for prominence based on phonological perception by the two authors, following the labelling guidelines stated in DIMA ("Deutsche Intonation - Modellierung und Annotation", [10]). In DIMA, three prominence levels are distinguished, not including non-prominent syllables (see also [8]). Prominence level 1 indicates a weak prominence, which does not necessarily coincide with F0 movement and might not carry a pitch accent. It is rhythmically or tonally conditioned. Prominence level 2 indicates strong prominence and normally co-occurs with a tone accent. Prominence level 3 indicates extra strong prominence. It is an emphatic hyperarticulation of an accent.

## 3. OBSERVATIONS

### 3.1. General observations

Instances of stressed pronouns occur throughout the corpus, covering a variety of sociolinguistic parameters (incl. mono-/bilingualism, language background, gender, register), therefore suggesting that it is indeed a peculiar but wide-spread phenomenon of German. More specifically, instances of stressed pronouns occur

- in bilingual and monolingual German [6 bi, 3 mo]
- in the dominant German of Turkish, Russian, and Greek heritage speakers [3 T, 2 G, 1 R]
- with both male and female speakers [1 m, 8 f]
- in informal and formal register [5 inf, 4 f]

Interestingly, none of the occurrences that we found in our corpus relates to the factors manipulated in the experiment in [11]: as far as phonology is concerned, all stressed pronouns were monosyllabic; as far as syntax is concerned, the stressed pronouns never occurred following the infinite verb. The patterns that we do find across our data therefore go beyond the factors already established in [11] and thus contribute to a detailed analysis of the phenomenon.

### 3.2. Examples

This section presents the examples found in the corpus. Information status and structure are not annotated explicitly, given the generalizations stated in section 2.2. The coarse prosodic structure is marked in the German target utterance by indicating boundaries of intonational phrases (IPs) by square brackets and accented words by small capitals. All pronouns in small capitals that we refer to as stressed received a prominence rating pertaining to at least prominence level 1. They are highlighted in bold for quicker reference. Note that this does not mean that the stressed pronouns carried the strongest prominence in the sentence, i.e. the nuclear accent.

The preceding sentence is always provided in italics in order to illustrate the immediate context. The examples are classified according to the relevant factors, which are discussed in section 4, namely contrast (ex. (3)), size of the intonational phrase (exs. (4) – (6), and occurrence in a prepositional phrase (exs. (7) – (11)). It is thus suggested to continue with section 4 and refer to the examples in this section for illustration.

(3) Turkish heritage speaker, female, informal
*Opposite was a girl with her dog who unloaded groceries from her car…*
[und dann wollte der HUND natürlich hinter dem BALL HER] [und dann sind **IHR** die ganzen SACHen] [vom EINkauf] [RUNter geFALLEN]
and then wanted the dog naturally after the ball and then did her the whole things of the shopping down dropped
'and then naturally the dog wanted to go after the ball. And then she dropped all of the shopping'

(4) Turkish heritage speaker, female, formal
*and the car driver luckily went em quickly to her and tried to help her and looked for injuries and em exactly what else can I say exactly …*
[die poliZEI wurde dann] [von **MIR**] [und noch von ANderen] [LEUten][verSTÄNdigt]
the police was then by me and also by other people informed
'then the police was informed by me and other people'

(5) Greek heritage speaker, male, formal
*He came straight out to help her… I think…*
[… ANdere pasSANten haben dann] [den NOTruf gewählt] [damit **SIE**] ehm [HILfe beKOMMT]
other pedestrians have then the emergency_call dialed so she uhm help gets
'other pedestrians then called the ambulance, so she would get help'

(6) Turkish heritage speaker, female, formal
*There was a woman on the other side of the road…*
[sie hatte ÄPfeln] [eh] [in dem KOFferraum] [des AUtos] [und sie WOllte] [**SIE**] [EINpacken]
she had apples uh in the trunk of_the car and she wanted them pack
'she had apples in the trunk of the car and she wanted to pack them'

(7) Greek heritage speaker, female, informal
*I am in front of Kaufland and a car just hit a cyclist…*
[er ist gerade AUSgestiegen] [und ist zu **IHR** geGANGen] [um ihr zu HELfen]
he is just got_out and is to her went to her help
'he just got out and went to her to help her'

(8) Russian heritage speaker, female, informal
*of course a car hit her…*
jetzt] [LIEGT sie da so RUM] [und der AUtofahrer geht jetzt zu **IHR**]
now lies she there so about and the car driver goes now to her
'now she is lying there and the car driver goes to her'

(9) Monolingual German, female, formal
*probably because he was still in shock…*
[aber er ist dann auch bei **IHR** geBLIEben] [und hat sich AUCH] [richtig NETT noch] [um sie geKÜMMert]
but he is then also with her stayed and has (REFL) also really kindly even for her cared
'but he then stayed with her and kindly cared for her'

(10) Monolingual German, female, informal
*the incident with the dog could have ended much worse…*
[zum GLÜCK] ehm [ist weiter NICHTS pasSIERT] [die FRAU hat den HUND] [wieder zu **SICH** geNOMmen]
luckily uhm is else nothing happened the woman had the dog again to her taken
'luckily nothing else happened. The woman took the dog back to her'

(11) Monolingual German, female, informal
[no preceeding sentence]
[also] [ich BIN gerad] [auf dem WEG zu **DIR**] [über den PARKplatz geLAUfen]
well i was just on the way to you across the parking lot walked
'on my way to you I just walked across the parking lot'

## 4. ANALYSIS

In example (3), it is conceivable that the speaker might have prosodically marked a constructed contrast by using prominence on the pronoun, namely an implicit contrast between what the dog is doing and what happened to the woman.

For the examples (4) – (6), we want argue that the prominent pronouns are licenced by prosodic well-formedness considerations, namely that within an IP, one constituent needs to be the head and thus stressed (e.g. [16]). In examples (4) and (5), the pronoun forms an IP with a function word, in (6) the pronoun is the only word within a phrase. So in these small IPs the head must be either the function word (*von, damit*) or the pronoun. Given that the pronoun is the right-most constituent in the phrase and stress

is right-most in German, prominence assignment follows these general principles of German sentence stress assignment (cf. [16] for a summary).

In examples (7) - (11), the stressed pronoun occurs as complement in a prepositional phrase, indicating a location (*bei*) or direction (*zu*). The stressed pronoun occurs in a position in which, had it been a full lexical noun phrase, it would receive stress (e.g. *geht jetzt zur MUTter*, *auf dem WEG zur MUTter*). With the pronoun being used, however, the accent would be expected to occur on the preposition (*zu*, *bei*). Note that the example in (3) from [11] is parallel in structure as it has the pronoun as the complement of a prepositional phrase. In a prosodic phrase consisting of two function words, there might be some variability as to which function word is augmented to the head of the prosodic phrase carrying an accent.

In (7) and (9), a further accent is realized on the verb. The accent on the pronoun in the prepositional phrase is thus a prenuclear prominence, again in the place where it would fall if the constituent was a full NP. Prenuclear pitch accents in German are possible and might occur independent of information structure, as so-called ornamental accents ([3]) or epenthetic accents ([9]).

## 5. DISCUSSION

Based on an analysis of our data, we propose two further linguistic factors that contribute to the stressability of pronouns in spontaneous speech which have not been addressed in the (little) research on stressed pronouns in German so far: (i) prosodic wellformedness considerations, such as headedness of IPs, (ii) syntactic constituency, especially the occurrence as complement in prepositional phrases. With respect to a phonological analysis, we propose that in these two conditions pronouns are phrased as prosodic words (rather than clitics). It is on those prosodically strong pronouns that accents are then licensed. The phonological structures for (5) and (7) are exemplified in (12a,b) respectively.

(12) a.

| | | | |
|---|---|---|---|
| x | x | | phrase-level |
| x | x | x | word-level |

(damit (sie)$_{\omega}$)$_{\varphi}$ ((Hilfe)$_{\omega}$ (bekommt)$_{\omega}$)$_{\varphi}$

b.

| | | | |
|---|---|---|---|
| (x) | x | | phrase-level |
| x | x | | word-level |

(ist zu (ihr)$_{\omega}$ (gegangen)$_{\omega}$)$_{\varphi}$

It remains to be verified with more data both within and across participants whether the size of IPs correlates with the number of occurrences of stressed pronouns, such that smaller, and therefore more, IPs lead to an increase of stressed pronouns. It is envisaged to test this correlation in further research. Alternatively, this could be tested on the fully annotated GECO corpus representing 92 dialogues of 25 minutes each ([14]).

It will further be interesting to see whether the number of occurrences of stressed pronouns also depends on a speaker's language profile, or whether it occurs with all speakers of German independent of further languages they might speak. The pronominal systems of the other languages represented by the speakers in our corpus, namely Russian, Turkish and Greek, differ in interesting ways. Russian is closest to German in that personal pronouns tend to be deaccented, and only receive a nuclear pitch accent if they are focused ([12, 13]). An interesting remark can be found in ([17: 919] work on spoken Russian though: "in Russian […] personal pronouns are normally stressed, which is not the case for English". For Greek and Turkish, on the other hand, it is interesting to note that they have pronominal systems which distinguish between two sets of forms, namely weak and strong, which differ in prosodic properties. A closer investigation is warranted should language background emerge as a relevant factor in our further research.

The fact that stressed pronouns are also found in monolingual speakers (and have first been reported for this speaker group), however, shows that the phenomenon is not restricted to language contact. It rather seems that yet to be fully determined dynamics of spoken language are at play which have escaped the attention of the theoretical linguistic literature so far.

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ii Note that in general there were considerably less pronouns in the narrations of the second pilot study although the narrations were longer. This was due to the depicted story which involved many more agents in pilot II, so that full noun phrases were repeated for unambiguous reference.