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FOREWORD

Aleš Bičan (Masaryk University / Academy of Sciences of the Czech Republic)

The new issue brings two previously unpublished English-written articles. One is by Miroslav Černý (University of Ostrava) who has already published an article here before. We are happy people return to us. His new paper is called "Interruptions and overlaps in doctor–patient communication revisited". The other article has the title "Negative concord in Portuguese and its evolution" and is written by Metoděj Polášek (Masaryk University). Both are valuable contributions to the field of sociolinguistics and that of syntax, respectively.

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INTERRUPTIONS AND OVERLAPS IN DOCTOR–PATIENT COMMUNICATION REVISITED[*]

Miroslav Černý (University of Ostrava)

Abstract. The paper offers partial results of a long-term project aimed at the inquiry into the field of medical interviewing. The main goal of the project is to search for communicative strategies of doctors and patients that are capable of conveying empathy and trust. Via an interdisciplinary analysis, based on the data excerpted from the most recent edition of the *British National Corpus* (2007), the author attempts to bring quantitative and qualitative evidence that doctor–patient communication has undergone significant modifications, resulting in social redefinition of the asymmetrical roles of the main protagonists. The paper draws attention to those communicative practices of doctors and patients that usually result in overlapping speech.

1. Introduction

Wynn (1995: 81) claims that doctor–patient communication research should focus on three main aspects of medical interviewing: (i) *questions*, (ii) *turn time and verbosity,* and (iii) *interruptions and overlaps*. Since I already discussed the first two aspects in some of my previous papers (Černý 2007, 2010), let me now draw attention to the role of the last one. With respect to the main goal of my long-term research, that being a search for discourse strategies of doctors and patients that are capable of conveying empathy[1] and trust, I will focus only on a selected number of functions carried by the employment of interruptions, resulting in overlapping speech. At the same time, I plan to revisit the frequently quoted standpoint (see Furst 1998) that recent social changes have modified the traditional model of the doctor–patient relationship and prepared ground for reduction of hierarchies and redefinition of roles in favour of the patient. Let me note that social position may affect the selection of words as evidenced by Körtvélyessy (2009).

For the purposes of the analysis I have taken the advantage of the spoken component of the *British National Corpus* (2007) and its collection of transcribed and annotated medical interviews. I have selected 50 medical interactions, with the total extent of text amounting to 34,376 words. In order to be successful in meeting my research aims, I have combined

[*] Previously unpublished. Peer-reviewed before publication. [Editor's note]

[1] In general, I understand empathy as an "emotional experience between an observer and a subject in which the observer, based on visual and auditory cues, identifies and transiently experiences the subject's emotional state. In order to be perceived as empathic, the observer must convey this understanding back to the subject" (Hirsch 2009).

the quantitative[2] perspective of the medical science with the qualitative viewpoints of conversation and discourse analysis (cf. Wynn 1995). My findings will be compared and contrasted with findings resulting from previous studies on the role of interruptions in doctor–patient communication, conducted in 1970s, 1980s, and early 1990s.

2. In search of definitions

Interruptions and overlaps belong among the conversation analytical variables which are problematic as far as their unambiguous definitions are concerned (cf. questions, topics, etc.). As Wynn summarizes: "Most researchers think that an interruption involves some sort of simultaneous [overlapping] speech. The additional criteria seem to vary, however" (1995: 75). Nevertheless, not even all overlaps within verbal interaction are interruptions. So called backchannels, for example, cannot be regarded as interruptions because they do not disrupt the topic or claim the floor (James – Clarke 1993).

The delimiting criteria include either whether the particular speaker is successful in interrupting the other interactant (Bennet 1981), or they take into consideration the intent of the speaker (cf. Tannen 1986). There is one more group of scholars: these classify interruptions as specific instances of simultaneous speech, emphasizing neither the success, nor the intent of speakers (Zimmerman – West 1975). The methodological problem of the first criterion is that it argues that those cases of simultaneous interaction which are not successful in interrupting the speaker cannot be classified as interruptions. The question then is how to assort such utterances which *do* intend to interrupt, but fail. The problem of the second criterion rests in the fact that it is frequently difficult to recognize the real intention of the speaker. The last method is, in my opinion, ignorant of the interactional context in which the interruption is realized, and thus so much can be 'lost in translation' for the researcher.

Opinions also differ as regards the function of the interruption (and overlap). According to Waitzkin (1984: 2445): "Interruptions are dominance gestures." The largest part of scholars really view interruptions as 'control devices', 'displays of dominance', as ways of claiming power in face-to-face communication (West – Zimmerman 1983, Cameron 1985, Fairclough 1989, Ainsworth-Vaughn 1992). However, it has been proved that interruption can function as manifestation of support, cooperation and understanding (cf. Edelsky 1981; Tannen 1984, 1986; Goldberg 1990).

Within the scope of this study, interruption is defined as "an initiation of simultaneous speech which intrudes deeply[3] into the internal structure of a current speaker's utterance"

[2] Besides calculating absolute and relative numbers, I also use more sophisticated statistical approaches, namely correlation and the F-test. Correlation is a measure of the relation between two or more variables. Correlation coefficients (I employ Pearson) can range from –1.00 to +1.00. The value of the former one represents a perfect negative correlation, the value of the latter represents a perfect positive correlation. The F-test gives statistical evidence whether two samples have the same standard deviation with specified confidence level. Samples may be of different sizes. In lay terms, it proves whether two samples differ to such an extent that this differentiation is worth studying.

[3] In Zimmerman – West (1975), the word 'deeply' appearing in the definition of an interruption is meant as "found more than a syllable away from a possibly complete unit-type's boundaries". Since it is often quite difficult to guess when the speaker's completion point appears, I classify a 'deep intrusion' from the semantic

(Zimmerman – West 1975: 113), with the intent of disrupting the topic, claiming the floor of the interaction or manifesting cooperation and support; does not matter if it results in successful interrupting the speech-flow or failure. While overlap is to mean "simultaneous speech in general, a phenomenon which can be mechanically or objectively defined" (Wynn 1995: 93), the identification of an interruption is based on such factors as context, topic, interactional response, etc. (Bennet 1981, Tannen 1986). This situational dependence then decides whether a particular interruption is to be interpreted as a display of dominance (Example 1) or cooperation (Example 2).

(1) D: *Well I don't why it's been changed because*
P: *Well, I, that's really the only reason I came up was because I wondered if they wanted to take me off it, you know if you wanted to change it, because I, it isn't working. Cos if I miss one of my toes are absolutely giving me gyp.*
(BNC/H4M/34–35)

(2) D: *Now what about Alice, is she needing?*
P: *Aye er (.) (unclear) er Lus Lustril*
D: *Need some of the Lustorol*
P: *(21.0) Lustorol Bolterol er*
D: *And Bolterol*
P: *(12.0) Er Ni Nikram, Ni Nikram tablets*
D: *Nikram*
P: *Nikram (unclear) tablets*
D: *What's she taking that for Tom?*
(BNC/H5P/35–43)

Drawing on Goldberg (1990), I distinguish between (i) *neutral interruptions*, (ii) interruptions expressing *relational rapport*, (iii) *competitive interruptions*, and (iv) those which display *relational power*. The neutral interruptions are relationally relevant, usually they do not initiate any significant shifts in the flow of the communication, and are not perceived as face-threatening. By contrast, the power type interruptions "are designed to wrest the discourse from the speaker by gaining control of conversational process and/or content […], involve topic change attempts accomplished by questions and requests or by assertions or statements whose propositional content is unrelated to the specific topic at hand" (Goldberg 1990: 892). The remaining two categories of interruptions stay on the topic, but unlike the rapport interruptions which often function as emphatic markers of interest, the competitive interruptions act as functional devices in the process "where each party strives to get the other to acknowledge her own particular beliefs, accomplishments or experiences as being in some sense 'superior' to those of the other" (Goldberg 1990: 896). Examples are offered in section 3.

As is evident, Goldberg's classification forms a symmetry–asymmetry continuum, with neutral and power type interruptions representing its respective extremes, and rapport and competitive interruptions standing for the in-between types. It will be interesting to spot to

point of view. In other words, if the simultaneous speech involves only synsemantic words (e.g. conjunctions), it cannot be considered an interruption.

what extent are these types doctor- or patient-initiated, and how they relate to the particular sections of the medical encounter: the information-gathering, the diagnosis or the treatment section. Before approaching the actual analysis, both quantitative and qualitative, let me offer a selective summary of results from previous studies referring to various functions of interruptions in medical consultations (Chart 1).

Chart 1: Findings resulting from previous studies on the function of interruptions in doctor–patient interaction

Study	Research results
Byrne – Long (1976)	Patients are often interrupted while presenting their problems.
Shuy (1983)	There are very few instances of doctors interrupting patients, but often interruptions of the doctor by the patient.
West (1984)	Doctors interrupt patients far more often than the reverse.
Mishler (1984)	Interruptions belong among the means by which the voice of medicine is established.
Waitzkin (1984)	Interruptions tend to be initiated by the interactant who holds the dominant position in the interaction (i.e. doctor).
Aronsson – Larsson (1987)	Interruptions may function as expressions of eagerness, support, and cooperation.
Henzl (1989)	Interruptions correlate with the asymmetry in the amount and distribution of speech during the medical interview.
Fairclough (1989)	Interruptions are used by doctors with the purpose of controlling the medical consultation.
Måseide (1990)	In order to be able to carry out systematic investigations, doctors have to limit patients' contributions.
Roter – Hall (1992)	Doctors interrupt patients right from the beginning of the consultation.

(cf. Wynn 1999: 64–68)

3. Statistical distributions

The statistical analysis of the variable 'interruption' has produced the following numerical data (Table 1 & 2). Out of 50 medical encounters, comprising 5525 turns (34,376 words), it was possible to excerpt 290 interruptions. 168 (58%) instances could be classified as

doctor-initiated, 122 (42%) as patient-initiated. 124 (43%) interruptions take place in the info-gathering phase, 38 (13%) during the period when the diagnosis is revealed, and 128 (44%) interruptions occur in the treatment section. 34 (12%) cases belong to the category of neutral interruptions, 199 (68%) interruptions display relational rapport, 43 (15%) are competitive interruptions, and 14 (5%) interruptions display relational power.

Table 1: Absolute frequency of interruptions in doctor-patient interaction

	Participant		**Phase**			
Abs.	*Doctor*	*Patient*	*Information*	*Diagnosis*	*Treatment*	**Total**
Neutral	20	14	14	6	14	**34**
Rapport	114	84	85	24	90	**199**
Competitive	22	22	18	6	19	**43**
Power	12	2	7	2	5	**14**
Total	**168**	**122**	**124**	**38**	**128**	**290**

Table 2: Relative frequency of interruptions in doctor-patient interaction

	Participant		**Phase**			
%	*Doctor*	*Patient*	*Information*	*Diagnosis*	*Treatment*	**Total**
Neutral	12	11	11	16	11	**12**
Rapport	68	69	68	63	70	**68**
Competitive	13	18	15	16	15	**15**
Power	7	2	6	5	4	**5**
Total	**58**	**42**	**43**	**13**	**44**	**100**

In relation to Chart 1, the above distributional spread seems to refute both the research findings by Shuy (1983), who claims that patients interrupt doctors far more often than the reverse and, at the same time, the findings by West (1984), who claims the opposite. To be more specific, in my samples, patients are as active 'intruders' into the talk of the other dialogue participant as doctors are. Generally, it can be said that doctors as well as patients interrupt straight away from the beginning of the medical consultation (cf. Roter – Hall 1992) and do not stop until the interview is over. It is also evident that neither doctors nor patients limit themselves in the use of any type of interruption (Examples 3, 4, 5, 6) and that overlapping speech is a common interaction pattern.

(3) P: *I thought I was taking a heart attack, but er Doctor (anonym) gave me a rub of that Di Difa Dif D:*
D: *Diflam.*
P: *Diflam?*
D: *Diflam. Yes.* (neutral)
(BNC/G4D/51–54)

(4) P: *Or er (unclear) you know [into my finger.*
D: *Into your fingers.]*
P: *You know when I, when I go to lift something, or if I use*
D: *Mhm.*

P: *pressing on this finger,*
D: *Aye, it feels [numb.*
P: *(unclear)] right up*
D: *Right up the arm. Right.*
P: *this arm. (7.0)* (relational rapport)
(BNC/G47/24–32)

(5) D: *Still on the Froben. What about the Tylex?*
P: *I tried the they keep me, now and again with them Doctor, [they make*
D: *They're not]*
P: *me awfully sick.* (competitive)
(BNC/H60/9–12)

(6) D: *Yeah.]*
P: *er what will you do, let me know? Or*
D: *No, what we'll do is go and actually get you booked in.*
P: *Oh.* (relational power)
(BNC/GY5/20–26)

A more sophisticated quantitative analysis via the calculation of the F-test (Appendix) confirms that there really is balanced dispersion of the interruption-types with respect to participants and dialogue phases. In other words, from the statistical point of view, the acquired data indicate that it is not worthy to focus on the interrelations between the variables 'interruption type' – 'participant' and/or 'interruption type' – 'phase'. What is, by contrast, worthy of examining here is the significant correspondence ($r = 0.3438$) that exists between the variables 'participant' and 'phase' with regard to the category of interruptions as such. To put it differently, the investigation of a researcher should concentrate on to what extent a particular phase influences either the doctor or the patient to initiate interruptions.

Despite what the quantitative analysis suggests, I still find it rewarding to trace how particular types of interruptions relate both to the interactants and the interview phases. My focus, however, will not take into consideration the numerical perspective, but the functional one. The point is that doctors may, for example, employ the same amount of the same interruption-types as patients do, though with different communicative intentions. Similarly, the same interruption-types may occur in all the interview sections, nevertheless with different functional use. It is for this reason that the distributional/statistical analysis calls, in my opinion, for more sensitive qualitative complementation.

4. Doctors interrupting their patients

Though any definition of interruption is, to a certain extent, problematic (cf. Davis 1996), and it is not possible to attain any ultimate definition of this discourse category, the distributional analysis of doctor-initiated interruptions, following the criteria introduced in above, insinuates (Figure 1 & 2) that the largest number of instances should be classified as rapport (68%), 13% as competitive, 12% as neutral, and 7% as power interruptions. Re-

garding the distribution of doctor-initiated interruptions with respect to the interview phase, it can be stated that the largest number of instances occur during the information-gathering phase (60%), 33% of interruptions occur during the treatment section, and only 7% during the phase of diagnosis.

Fig. 1: Relative distribution of doctors' interruptions with respect to their classification

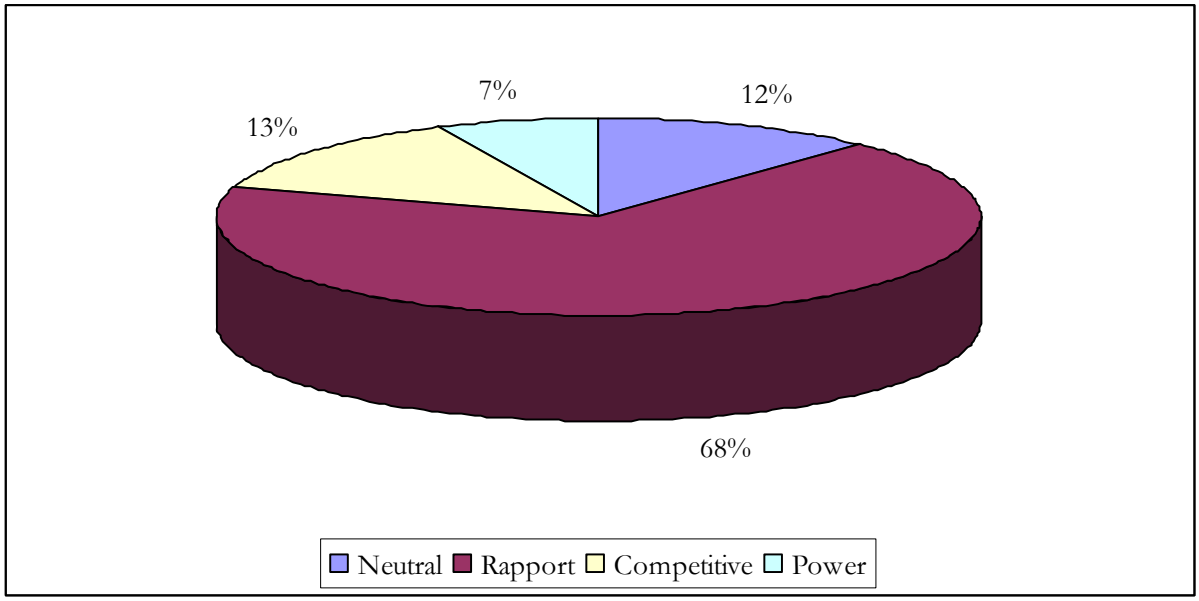
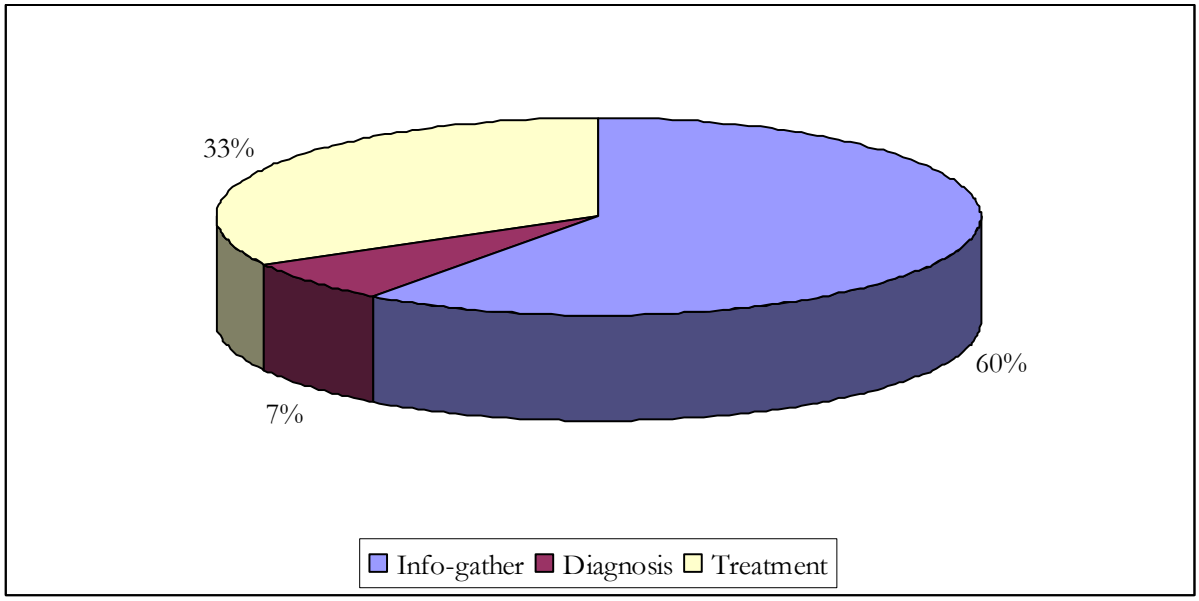


Fig. 2: Relative distribution of doctors' interruptions with respect to the interview phases



Taking into consideration the classification of interruptions along the symmetry–asymmetry continuum, the data demonstrates that the symmetry-oriented interruptions (i.e. neutral interruptions and those expressing relational rapport) prevail over the asymmetry-oriented interruptions (i.e. competitive and power interruptions) 80% to 20%. This finding seems to rebut Fairclough's (1989), Mishler's (1984), and Waitzkin's (1984) arguments that interruptions belong among the means by which the *voice of medicine* is established,

and that interruptions are used by doctors with the purpose of controlling the medical consultation. Much more frequently, they function as discourse devices expressing either support and cooperation (neutral interruptions) or, first and foremost, eagerness and/or signs of interest and empathy (relational rapport).[4] For the illustration see Example 7.

(7) P: *(cough) (18.0)*
D: *Stupid machine. Can't be doing with that way down there. (11.0) That should it's found you (.) at last.*
P: ***[It's found me. Oh so I am***
D: ***(unclear) at last.****]*
P: ***here. After all [these years I'm definitely***
D: ***Still alive.****]*
P: ***here.***
D: *Still alive. (.)*
P: *That's given me all sorts of things, has it? (ha-ha)*
(BNC/H4M/24–32)

If the controlling interruption does take place, it is usually with the intent to take the floor and change the topic of the interaction. In the following illustration (Example 8), it can be seen how the doctor intrudes into the patient's speech by shifting their interaction from the currently discussed topic about the increasing number of patients during the school holidays to the real reason of the patient's visit, which is the back pain. Since it is the doctor who has initiated the social topic (*don't come in the school holidays*) and the patient simply wants to be polite and follows what has been opened, his interruption might be viewed as rather rude and face-threatening because it disrupts the patient's desire to be listened to and also her feeling that what she says is interesting and worth attention. To put it differently, the doctor violates both the patient's positive and negative face.

(8) D: *Oh, it's getting, don't come in the school holidays.*
P: *Aha. [How is it?*
D: *Cos it's pandemonium.]*
P: *Aha.*
D: *It's er (.) full of, full of youngsters.*
P: ***Not obeying you. [Now just because of***
D: ***What've you been doing?****]*
P: *Doctor (anonym) gave me er I can't, I can hardly walk I've got a terrible sore back.*
D: *Your back been giving you trouble again?*
(BNC/H56/11–19)

[4] "Although there are some methodological problems related to classifying interruptions as controlling or cooperative, it is difficult to avoid such classification entirely. Much of what is interesting about interruptions relates to how particular instances of interruptions function in specific circumstances, for example, if an interruption results in a shift of speaker or topic" (Wynn 1999: 2000).

Moreover, controlling interruptions occur when the doctor's plan is to change the section of the interview. As is illustrated below (see Example 9), the patient outlines her physical condition (from the context of the complete interview it is clear that the patient's turn is realized in the phase of diagnosis) when the doctor suddenly interrupts her and leads the interview towards the treatment phase (cf. Byrne – Long 1976).

(9) P: *I do actually feel better. I I eat I don't usually take my first lot of tablets till sort of around dinner time. And I find sort of about an hour or so afterwards [I do*
D: *(unclear)]*
P: ***actually start to feel***
D: ***Anyhow we're g we're gonna [summarize***
P: *(unclear)]*
D: *your Lithium in October of course, that's [(unclear)*
P: *Mhm.]*
D: *And that's fine. [What I*
P: *(unclear)]*
D: *would apart as far as the levels are concerned I'd check them again in Septem erm no hang on we've just checked them.*
(BNC/G5X/72–81)

Even more interesting seems to me the case which occurs in the information-gathering phase and in which the doctor interrupts the patient in order to shift the encounter from verbal examination to physical examination (Example 10). Here again, the doctor's verbal behaviour can be perceived as impolite, and presents a traditional example of the struggle between the *voice of medicine* and *voice of the lifeworld* or, in other words, between the medical agenda, on the one hand, and patient agenda, on the other.

(10) D: *That's okay. Not to worry about that. What've you been doing to yourself?*
P: ***I've been no I've been taking kind of palpitations, I don't know, and I'm as tired as***
D: ***Come on let's have a listen to you and see what you're doing to your poor old self***.
(BNC/G4E/5–7)

Sometimes it is not easy to interrupt the patient, especially when she is or feels to be competent enough to question the doctor's authority. In such cases, the doctor has to compete with her to prove that his professional opinion is the correct one. The verbal competition, of course, results in a series of interruptions on both sides. In the following extract (see Example 11), the patient tries to offer her personal perspective on the medical problem; in her view it is a frozen shoulder. The doctor rejects this diagnosis and later in the interview he suggests his own (neuralgia). Before the patient accepts that she is wrong, it takes some time filled with frequent interrupting. The patient, however, is not such a powerful contestant to oppose for too long, which could be, among others, sensed from the very polite manner of proposing the diagnosis (*I wondered if it was a frozen shoulder, I thought that if …*).

(11) P: *Yeah, (unclear), (anonym). Er, oh, it's, see actually I wondered if it was a frozen shoulder?* ***I thought that if, you know how [sometimes***
D: ***No, no.]***
P: *you, see when I, I can nae turn,*
D: *[That's (unclear)*
P: *see when I go] I, I can nae*
D: *You wouldn't be able to do that if you had a frozen shoulder.*
P: *Wouldn't?*
D: *No.*
P: *I can,* ***I can actually get it to there, but [see when I***
D: *Aye well,* ***if] you had a frozen shoulder you wouldn't get it past there.***
P: *Well, I can get it past but I couldn't lift it up.*
D: *That's right.*
(BNC/G45/49–60)

Despite the above presented illustrations, it needs to be stressed once again that whereas the controlling interruptions form the minority, the category of cooperative and empathic interruptions is very productive (cf. Aronsson – Larsson 1987). Among the most frequent communicative aims accomplished by cooperative (i.e. neutral) interruptions belong those intending to elicit either repairs of patients' preceding utterances (Example 12) or repeats for confirmation of what the patient has suggested (Example 13 & 14).

(12) D: *Right. Well Nikram was fine thirty years ago, but it, it's too dangerous now.*
P: *Ah, ah, ah.*
D: *[Cos er it was alright*
P: *Ah.]*
D: *way back in the old days but (10.0) now then,*
P: ***Er some Stella Stelladine***
D: ***Some Stellazine***
P: ***Stellazine aye.*** *(11.0)*
D: *And*
P: ***Norvex? Nordex***
D: ***Sorry, Norvex***
P: ***Norvex aye.*** *(.)*
(BNC/H5P/57–68)

(13) D: *Oh well I'll keep the insurance company er I er we will send them a little note in that case, saying look, you know, this is the case, it appears to be an innocent lesion she's just been finely checked over on the eighth of October, do you feel you can now proceed?*
P: ***I mean they they've given (unclear) me insurance but it's***
D: ***Oh right, so you are covered?***
P: ***Sort of, they're going to review it.***
D: *Oh right.*
(BNC/G5Y/13–17)

(14) P: *Doctor (anonym) see about this hair of mine, it's just not coming back in.*
D: *It's not coming back in?*
P: ***No. And I feel it's getting really really [I mean I thought maybe***
D: ***Is that right?]***
P: *I have took alopecia before I mean I thought [maybe*
D: *Mhm.]*
P: *it was because it was the wee one, but that's her*
D: *Aha.*
P: *fourteen months, so I mean it should be*
D: *Oh aye.*
P: *showing as wee bit er of improvement.*
(BNC/H5W/15–25)

The communicative intention hidden behind the employment of empathic (i.e. relational rapport) interruptions is to signal high involvement and understanding. Via the utilization of this type on interrupting the doctor demonstrates to the patient that he empathizes with her feelings and experiences. Though the patient's desire to be listened (the negative face) is due to the doctor's verbal intrusion violated, her desire for social closeness (the positive face) is addressed (see Example 15 & 16). What is important, identically to cooperative interruptions, also empathic interruptions stay on the topic.

(15) P: *Enough.*
D: *Tt! That was it. No chance.*
P: ***I've been off for three of four time before (unclear) [for long a few years and***
D: ***Aye. Och aye.] I know but*** *[(unclear)*
P: *back to it.]*
D: *They go back to it, this is the thing.*
(BNC/H53/36–41)

(16) P: *Yeah that's it, yeah. If I, and salad cream I can't er I can't even put salad cream on a salad*
D: *Oh dear.*
P: *because that upsets me and all.*
(BNC/GY6/186–188)

A specific instance of empathic interrupting that also occurs in the material under investigation can be labelled as agreement discourse markers (cf. Cordella 2004: 131–136). This discourse strategy, belonging to the *fellow human voice*,[5] enables the doctor to respond positively to the patient's contributions, and thus indicate that he agrees with what is being said by the patient. The positive feedback does not merely confirm that the doctor supports

[5] According to Cordella (2004: 121–148), there are five functions of the fellow human voice: (i) facilitating the telling of patients' stories, (ii) assisting in the telling of patients' stories, (iii) creating empathy with the patient, (iv) showing special attentiveness to patients' stories, (v) asking questions unrelated to the patient's health.

the patient, and assists in her developing of the consultation, it can be, in addition, interpreted as an expression of empathy and understanding (Example 17).

(17) P: *And I came er I came up before, can't [remember*
D: *Yeah.]*
P: *I come [up and*
D: *That's right.]*
P: *ere r that's the only time. I don't [have*
D: *Right]*
P: *any bleeding [in between*
D: *good,]*
P: *nothing*
D: *good,*
P: *you know.*
D: *good.*
P: *But the first time I did use it I thought me inside were on fire.*
D: *Oh yes, it often irritates in the same way when you first start to drink spirits.*
P: *Oh dear,*
D: *Yeah.*
P: *I whatever am I [going*
D: *Yeah.]*
P: *to do and I rung my daughter next [morning,*
D: *But it] goes as you notice it goes off*
P: *It went and it sent to sooth*
D: *That's right. Yeah.*
(BNC/G5R/129–150)

5. Patients interrupting their doctors

The distributional analysis of patient-initiated interruptions was no less difficult than the analysis of doctor-initiated interruptions; it was inevitable to struggle with many blurred cases that struggled against univocal categorization (Example 18). Finally, it has resulted in the following findings (Figure 3 & 4). The largest number of instances can be classified as rapport interruptions (69%), 18% as competitive, 11% as neutral, and 2% as power interruptions. Regarding the distribution of doctor-initiated interruptions with respect to the interview phases, it can be stated that the largest number takes place during the treatment (58%), 22% take place during the diagnosis, and 20% during the info-gathering.

Fig. 3: Relative distribution of patients' interruptions with respect to their classification

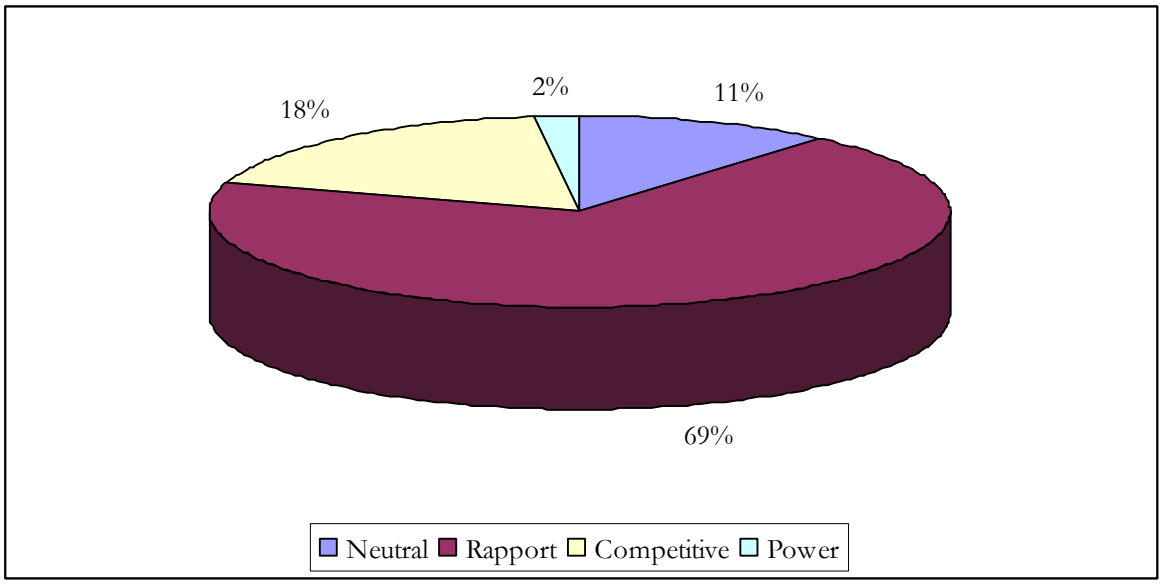
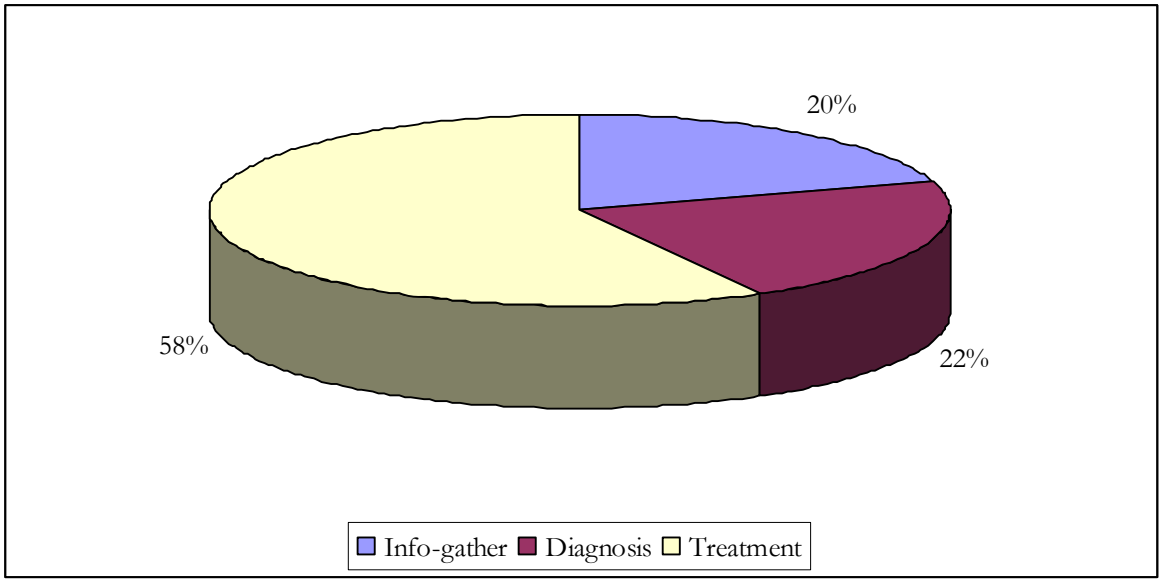


Fig. 4: Relative distribution of patients' interruptions with respect to the interview phases



(18) P: *And I'm permanently crying. (.) Help. (.)*
D: ***What's happened, has your appetite***
P: ***No.***
D: ***changed?*** *No?*
P: *No. And when I started putting on weight I and I'm still putting on weight.*
D: *Right. (.) [**Are you***
P: ***I'm actually](.) about just over ten and a half stone now.***
D: *Mhm. (.) Your hair falling out?*
P: *No.*
D: *No problems with you hair? It's not getting brittle?*
P: *No.*
D: *No.*
(BNC/G4B/9–20)

Example 18 represents a fuzzy case. We are in the info-gathering phase, and we know that the patient's reason for visiting the doctor's surgery is her growing weight. The doctor asks a series of questions some of which are interrupted by the patient's answers before the doctor's elicitation is completed. At first sight, a researcher may classify the patient's style of interrupting as competitive and/or even face-threatening. However, in my opinion, the larger context of the interview shows that the patient is simply too worried about her medical problem, which influences the way she interacts. This is the reason she is, at first, too hasty when giving her responses. Gradually, she slows down and together with the doctor they successfully arrive at the correct diagnosis. As from the very beginning her intention has been to cooperate and not to compete, I classify her style of interrupting as cooperative (i.e. neutral).

Interestingly and unexpectedly, the above data give statistical evidence that if the classification of interruptions along the symmetry–asymmetry continuum is taken into consideration, there is exactly the same distribution between the symmetry-oriented interruptions and asymmetry-oriented interruptions initiated by patients as between those initiated by doctors; in both cases the estimation is 80% to 20%. In addition to that, the numerical order of patient-initiated interruptions from the most numerous category to the least numerous category follows the numerical order calculated for doctor-initiated interruptions: rapport interruptions – competitive interruptions – neutral interruptions – power interruptions. All this suggests that Henzl's (1989) assertion about interruptions correlating with the asymmetry in the amount of distribution of speech during the medical interview (see Chart 1) cannot be taken for granted. As is obvious, interrupting does not necessarily relate to asymmetry, and can be, by contrast, viewed as a symmetrical feature of doctor–patient relationship.

The following two examples (Example 19 & 20) demonstrate an 'attractive' illustration of symmetrical patient-initiated interrupting. In both cases, the patient intrudes into the doctor's talk while saying the same piece of thing as the doctor at same time as the doctor. In the first instance, the interactants share the opinion regarding the diagnosis. In the second instance, they have agreed on the time perspective.

(19) D: *Well it looks as though it could well have been*
P: ***[originally chicken pox?***
D: ***like chicken pox.****] Yeah. But that's, it takes, it's just the skin to get broken, and underneath the skin and it just spreads and it's (unclear)*
P: *And you haven't seen my arms.*
D: *Same. Alright. Okay.*
(BNC/H5A/25–29)

(20) D: *Mm. (phone call starts and ends) Now you went off, when when was it you? [(unclear)*
P: *Oh, it was] a week past this Sunday. (unclear)*
D: *A week past Sunday.*
P: *But you know how you've got a week*
D: *[Aye.*
P: *you can] [self-certificate.*

D: *So that covers] you up till the* ***[Monday***
P: ***Monday.]***
D: *does it?*
P: *Aye.*
D: *Up till the Monday. Right.*
P: *Up to the Monday.*
(BNC/H50/17–28)

Another interesting case of patient-initiated interruption can be documented by Example 21. Here, as one part of physical examination, the doctors want the patient to breathe into a special tube to measure her maximum breathing capacity. At first, the patient is not successful, and interrupts the doctors with and an excuse (*Sorry.*). The doctor is patient and leads the patient towards satisfactory output. In my opinion, the extract shows the effort to cooperate on the part of the patient and to convey patient-centredness on the part of the doctor.

(21) D: *What you do with this is take a big breath,*
P: *Yeah.*
D: *put it your mouth and blow out as hard and as fast as you can. It'll make you cough probably, and* ***keep your fingers off the s off [the***
P: ***Sorry.]***
D: ***scale.*** *It's okay. Right big blast.*
P: *(breath)*
D: *You actually put it in your mouth.*
P: *Sorry.*
D: *It's alright.*
P: *(breath) (cough)*
D: *Oh dear, is that as hard and as fast as you can manage?*
P: *Well I can have another try if you want.*
D: *As if you're blowing out your birthday cake candle.*
P: *Yeah.*
D: *You remember the story bit about the big black wolf [who*
P: *Yeah.]*
D: *blow the little piggies house down. Well that's what you're blasting at. That's how you blast through one of these.*
P: *(breath) (cough)*
D: *Yeah, yeah.*
(BNC/G5W/41–59)

In harmony with doctors, also patients use the type of interruptions that can be labelled as empathic, express relational rapport, are markers of interest, affection, social closeness, and active listening. The following two examples illustrate the initiation of an agreement discourse marker and positively polite behaviour, respectively.

(22) P: *So would I, would I still use that or what do you think, painkillers or what doctor?*
D: *No there is a, there's a special stuff I'm going to give you [(unclear)*
P: *Is there?]*
D: ***to get rid of this for you. (.) Now the other thing that very often goes with this is a crunching noise***
P: ***[That's right.***
D: *when you,] when you move your neck.*
(BNC/G4D/57–62)

(23) P: *What about your own family? You still got them?*
D: *Yeah. Oh well. Yeah, they're still*
P: *Still keeping you*
D: *still keeping me out of mischief.*
P: *[Still keeping*
D: *Still keeping me out of mischief.] [(ha-ha)*
P: *Are they keeping you] out of mischief? ((ha-ha)) Ah well. [((ha-ha))*
D: *Oh aye.] Oh aye. Okay Agnes.*
(BNC/H5V/132–139)

Finally, let me offer one illustration of patient-initiated intrusion into the doctor's speech classified according to its discourse function as power or controlling interruption (see Example 24). The following extract shows how the doctor poses a 'scale' question (*how you feel on a scale of one to ten?*). Since the question is answered by the patient (*I'm two on, two or lower*), the doctor acknowledges the response (*Yeah*), and proceeds to another question and another topic. However, the patient shifts the topic back to the issue of her feelings (*feel really low and out of breath easily*), thus specifying what she finds to be important as far as her medical problem is concerned. The doctor acknowledges the given information once again, and only then he continues with what has been interrupted by the patient.

(24) D: *How would you feel if er if I said sort of describe how you feel on a scale of one to ten?*
P: *Er right now I'm two one, two or lower.*
D: ***Yeah, do you get***
P: ***Feel really low and out of breath easily.***
D: *Yeah. Are you getting hot sweats?*
P: *Yeah, do now and then, yeah.*
D: *Have you been anywhere exotic on holiday in the past three months?*
P: *No.*
D: *Past year?*
P: *No.*
D: *And conditions down the pits (unclear)?*
P: *Hot.*
(BNC/GYC/26–37)

As the functional aspect of interrupting in the medical consultation has been outlined, what remains to be said is a comment on the formal side of both doctor-initiated and patient-initiated interruptions. According to Wynn (1999: 201–209), doctors and patients often interrupt with a question, with an excuse, with a response, and with an explanation. As some of the above examples demonstrate, my findings, based on English data, confirm what Wynn has found in the language material recorded in Norway.

6. Concluding remarks

In my opinion, the information just presented demonstrates sufficiently how complex the phenomenon of interrupting is, and how varied and interrelated with other aspects of verbal behaviour the discourse strategies resulting in the interruption of the speaker are. This complexity may, of course, raise certain amount of criticism aiming at the present research of mine. What can be questioned is the selected classification of interruptions, or the definition of an interruption as such. I am aware that there are other classifications worth considering: for example by James – Clark (1993), dividing interruptions into *neutral*, *powerless*, and *powerful*; or by Neustein (1989), introducing so called *simple*, *expansive*, and *closure-implicative* interruptions. Nevertheless, Goldberg's (1990) classification seems to me as the most delicate. Regarding the definition, I tried to organize an 'operational' definition that would comprise both the functional and the formal aspect of interrupting, with a more significant stress on the former.

As far as the research results are concerned, my findings reflect the tendency towards a more balanced character of doctor–patient interviewing. Both interactants are very active interrupters, with slight numerical dominance on the part of the doctor. Both the doctor and the patient interrupt throughout the medical encounter, and take the advantage of all the functional types of interruptions. In both cases, there is quantitative prevalence of the employment of symmetry-oriented interruptions over the asymmetry-oriented. Moreover, the doctor and the patient share the same numerical order of the interruption types initiated: rapport interruptions (being the most numerous) – competitive interruptions – neutral interruptions – power interruptions (being the least numerous). When the division of interruptions into controlling, on the one hand, and cooperative and empathic, on the other hand, is considered, we can see evident inclination towards the latter category. From the formal point of view, both speakers interrupt with the same set of utterances: most frequently with a question, an excuse, a response, and with an explanation. An interesting case is that of an agreement discourse marker.

The qualitative part of the investigation further documents that the controlling interruptions take place when there is an attempt to take the floor and/or change the topic of the interaction. Doctors, moreover, use these interruptions with the intention to change the phase of the consultation. As for the cooperative interruptions, they are employed by doctors in order to elicit either repairs of patients' preceding utterance or repeats for confirmation of what the patient has suggested. As for the empathic interruptions, they are used by doctors to signal involvement and understanding, and also to express positive feedback. As for the other speaker, the patient-initiated interruptions take place when the very same

thing is said by the patient at the same time as by the doctor. Some interruptions are also related to positive politeness.

To conclude, I view interruptions as effective language devices via which the process of the medical interview can be, under suitable conditions, enhanced. I agree with Måseide (1990) that in order to be able to carry out systemic [and empathic!] investigation, doctors sometimes have to limit patients' contributions. At the same time, I would like to add that patients too have to restrict doctors' contributions in order to be able to claim their needs and/or to express their alignment with the opposite party.

Appendix

Below are results of the F-test, containing calculations relevant for the quantitative section of the analytical part of the study.

F / Participant	*Rapport*	*Competitive*	*Power*
Neutral	0.8965	0.9509	0.2202
Rapport		0.8185	0.202
Competitive			0.1957

F / Phase	*Rapport*	*Competitive*	*Power*
Neutral	0.9313	0.9218	0.8442
Rapport		0.9689	0.8664
Competitive			0.896

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NEGATIVE CONCORD IN PORTUGUESE AND ITS EVOLUTION[*]

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Abstract. This article focuses on the phenomenon of negative concord in Contemporary Standard Portuguese in the context of Archaic or better Medieval Portuguese and new tendencies of the sentential negation in Contemporary Colloquial Brazilian Portuguese. The reason why certain negative syntactic structures are (or are not) considered as grammatical will be explained by the generative syntactic theory developed by Zeijlstra and Penka on the basis of formal semantics. This theory says that the changing semantic status of the sentential negative marker *não* determines the relation of the negative marker with other negative elements.

Goal

The goal of this article is to introduce the phenomenon of negative concord in Contemporary Standard Portuguese in the context of its diachronic ancestor (Archaic Portuguese) and new tendencies of the sentential negation in Contemporary Colloquial Brazilian Portuguese. I will trace the evolution of the negative concord in Portuguese, the relevance of the position of the sentential negation marker, and how it relates to negative indefinites in the sentence. I will adopt the syntactic theory of the negative concord of Zeijlstra and Penka in order to explain the reason for (un)grammaticality in common types of constructions, subject to the negative concord.

The interpretation of multiple negation

From the perspective of the interpretation of multiple negation, the natural languages are, according to generally adopted typology, divided into two basic groups: Negative Concord (NC) languages and Double negation (DN) languages. Negative Concord means that if a sentence contains two or more negative elements they are together interpreted as a single negation, which means the negative elements do not cancel each other out. It seems to be a common characteristic for all Slavic languages, including Russian and Czech, as well as for a prevailing part of Romance languages, including Italian and Portuguese (1).

(1) Não devemos permitir nada.
Neg (we) should allow n-thing.
'We should not allow anything.'

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The standard form of German languages, e.g. German, English and Dutch, belong to the second group: Double negation (DN) languages. The term Double Negation already partially explains the interpretation of multiple negation in these languages: two or more negative elements in one sentence cancel each other out so if a sentence should have a negative interpretation, only one negative element has to be present, as in the example (3).

(2) We should not allow nothing.
'We should allow something.'

(3) We should allow nothing.
'We should not allow anything.'

Let us leave the DN languages aside now and let us go back to the NC languages which represent a very heterogeneous group. The heterogeneity consists in the conditions which permit the co-occurrence of more than one negative element in one syntactic unit. The elements which count as negative elements for the purpose of the Negative Concord can be divided into two major groups:
– Negative markers which yield sentential negation and have their origin, in the case of Romance languages, mainly in the Latin *non.* In Portuguese it is the general negative marker *não* and also *nem*, utilizable mostly in coordinates, and according to Matos (2003), also *sem* (without).
– Negative words or just n-words. The term n-words was introduced by Laka in 1990 and is used for negative quantifiers or better negative indefinites with variable quantificational status that are syntactically marked for negation. It means they do not necessarily introduce negation in all possible syntactic circumstances[1] but only in particular syntactic configurations (Zeijlstra 2004). In Portuguese we refer to *ninguém* (nobody), *nenhum* (no one), *nada* (nothing) and *nunca* (never). In addition, there is one special case of n-word – *algum* (some/any/one) which yields negative reading only once appearing in singular in a post-nominal position.

(4) Pessoa *alguma* gosta de ser maltratada.
Person any likes to be maltreated.
'Nobody likes to be maltreated.'

The negative elements that are not subject to the NC are:
– Constituent negation elements which can not concord with a sentential negation because their scope is different. Their co-occurrence generates a double negation reading.

(5) A Paula *não* sai *sem* a filha.
Paula neg goes out n-with the daughter.
'Paula does not go out without the daughter.' or 'Paula only goes with the daughter.'

[1] With exception of only one part of them, let us call them the true negative quantifiers (like *nothing* in English or *niets* in Dutch).

(6) Eles não vão não prestar atenção a esse assunto.
They neg will neg pay attention to this issue.
'They will not ignore this issue.' or 'They will pay attention to this issue.'

– Lexical negation elements which constitute e.g. the quasi-affixal and affixal negation in Contemporary Standard Portuguese (CSP) – see the examples (7) and (8) from Matos (2003). It means that the Portuguese prefixal negation based on the Latin prefixes *in-/des-* has for example a completely different syntactic behavior than the Czech negative prefix *ne-*; not only because the Czech affixal negation is subject to the NC (9) but also because it constitutes the functional head of the sentential negation. The constructions which are said to be ungrammatical are prefixed with the diacritic '*'.

(7) * O pessoal *não*-docente compareceu a nenhuma reunião.
The staff neg-teaching appeared at n-one meeting.
'The staff of non-teachers did not appear at any meeting.'

(8) * O orçamento previsto *in*viabilizou nenhum projecto.
The budget previewed neg-facilitated n-one project.
'The previewed budget did not facilitate any project.'

(9) Daný rozpočet *ne*umožnil žádný projekt.
The budget previewed neg-facilitated n-one project.
'The previewed budget did not facilitate any project.'

One part of the NC languages, so-called strict NC languages (the already mentioned group of Slavic languages, for example), are in general less sensitive to the position of n-words in one sentence. See two grammatical versions of the same Czech sentence.

(10) *Nikdo ne*říká *nic*.
N-body neg says n-thing.
'Nobody says anything.'

(11) *Nikdo nic ne*říká.
N-body n-thing neg says.
'Nobody says anything.'

The other part of the NC languages consists of so-called non-strict NC languages. These languages, for example, a big part of the Romance languages, behave in the same way as the Strict NC languages do if an n-word is situated in a post-verbal position: the verb needs to be preceded by a negative marker. If the respective n-word is situated in a pre-verbal position in the phrase, an eventual presence of the negative marker damages the grammaticality of the sentence. Penka admits a combination of preverbal negative indefinite (n-word) with a negative marker in non-strict NC languages only in one special case: the negative marker receives a double negation interpretation (not subject to NC) if the negative indefinite is intonationally prominent and the context allows it. The Italian

sentence in example (12) would be acceptable as a negative answer to a question involving negation (Penka 2007: 21).

(12) – Who didn't eat?
– *NESSUNO* non ha mangiato.
N-body neg has eaten.
'Nobody has eaten.'

Pereira de Abreu (1998) calls the pre-verbal n-words and negative markers strong negative elements and the remaining negative elements weak[2]. This division is based on Zanuttini (1994) who is of the opinion that strong negative elements are base-generated in the head of NegP[3] whereas the weak ones are not[4]. It is worthwhile using this division of the negative elements in the context of the non-strict NC languages as it reflects the syntactic status of the negative elements in these languages. A co-occurrence of a pre-verbal n-word with a negative marker (see the example 13) is not permitted, as has been said before, whereas the post-verbal n-words are not allowed to appear independently (so they are weak in this sense), without the presence of the so-called strong negative elements (14). The example (15) demonstrates that two n-words can occupy a position to the left of the verb at the same time.

Contemporary Standard Portuguese (CSP) can be seen as a model example of the non-strict NC languages, at least from the perspective of multiple negation (examples from Matos). The strong negative elements are marked in bold.

(13) Ninguém diz nada nunca.
N-body says n-thing n-time.
'Nobody ever says anything.'
***** Ninguém não diz nada nunca.

(14) Ele não cumprimentou ninguém.
He **neg** said hello to n-body.
'He did not say hello to anybody.'
***** Ele cumprimentou ninguém.

(15) Nunca ninguém viu esse espetáculo.
N-time n-body saw the show.
'Nobody has ever seen the show.'

[2] This division strong-weak is also used by Zeijlstra (2004) but only for negative markers and in a slightly different meaning: the strong negative markers are not attached to the finite verb and are base-generated in the head of NegP (applicable for the languages like Portuguese or Italian); weak negative markers are attached to the finite verb and are base-generated in a position attached to the finite verb (as in Czech and other Slavic languages).

[3] NegP represents a functional projection hosting sentential negation.

[4] Pereira de Abreu assumes that the weak negative elements get specified only in the logical form as the Minimalist Program calls the interpretation of structure after Spell-Out.

Archaic Portuguese (AP) permitted a combination of a n-word in pre-verbal position and the negative marker *nom* / *nõ* / *não* accompanying finite or infinite verbs, in contrast to CSP. Nunes (1989) noted that this was optionally possible in Medieval Portuguese. Dias (1918) also describes briefly this phenomenon in his monograph about the Ancient Portuguese syntax and mentions it in one section together with another phenomenon: the co-occurrence of two negative markers *nem – não* in emphatic syntactic constructions where an object precedes the related verb (see the example 18). He does not specify dates of the occurrence of these phenomena but he uses a sentence of the dramatist Gil Vicente (1465–1537) as an example. From the original versions of Gil Vicente's verses one can conclude that they were rather common in the first part of the 16th century even if their utterances were far from regular in the texts which were subject to my analysis.

(16) Já ninguém não se preza da vitória em se salvar![5]
Already n-body neg brags of victory by rescuing himself!
'Nobody brags of victory anymore by rescuing himself!'

(17) Nenhum velho não tem siso natural.[6]
N-one old neg has natural judgment.
'Nobody who is old has a natural judgment.'

(18) Nem as cabras não nas vi…[7]
Not even the goats neg them I saw…
'I did not even see the goats…'

As Zeijlstra (2004) points out, it is crucial that the non strict NC languages do not allow the combination of preverbal n-words with negated verb. From this point of view the AP seems to belong to strict rather than to non-strict NC languages, if the only criterion would be the impossibility of a pre-verbal n-word to combine with negated verb.

Negative imperatives

There are nevertheless also other features that the non-strict languages have in common. One of them is the issue of the grammaticality of true negative imperatives. It means that a surrogate construction is required to express negative imperative mood, the subjunctive in case of CPS and few other Romance languages[8]. Zeijlstra (2004) came to the general conclusion that non-strict NC languages always block true negative imperatives. He explains it by the syntactic properties of the negative marker: whenever a negative marker is base-generated in the NegP as a bearer of negative semantics, true negative imperatives are not allowed. That follows from a syntactic scoping of imperative force and

[5] Vicente, G., Auto da Alma.
[6] Vicente, G., O Velho da Horta.
[7] Vicente G., Auto da Mofina Mendes.
[8] Italian and Spanish for instance, according to Zeijlstra (2004); languages such as French and Romanian find other ways to distinguish the true from non-true negative imperatives.

negation – if verbal negation is a bearer of negative semantics (syntactically being head of NegP) then in imperative construction it must move with a verb into ForceP via head adjunction[9]. In strict NC languages this does not happen as the negative morphology on the verb is the only signal of the covert semantic operator which is the locus of the negative semantics as we will explain in the following chapter.

Zeijlstra also says that all non-strict languages disallow negative imperatives but this generalization does not work vice-versa (these phenomena are uni-directionally correlated): there are languages which block true negative imperatives and do not belong to the category of non-strict NC languages[10].

If we look at the CSP more closely we observe that the (un)grammaticality of true negative imperatives can only be determined with the 2nd person singular. The other persons (3rd person singular and plural[11]) use the subjunctive for both positive and negative imperative forms. The AP behaves like CSP in the 2nd person singular. The 2nd person plural is commonly used and does not allow for true negative imperative either, analogically to the 2nd person singular. Gil Vicente uses surrogate constructions regularly, for both 2nd persons: singular and plural.

(19) Não digas mal da feira...[12]
Neg say.2SG.SUBJ bad about the market.
'Don't speak ill of the market!'

(20) Escutai bem, não durmais![13]
Listen.2PL.IMP well, neg sleep.2PL.SUBJ.
'Listen well, don't sleep!'

In this aspect, both CSP and AP behave in the same way: the rule of ungrammaticality of true negative imperatives is not violated in any of them.

Conclusions about the nature of sentential negation in Archaic Portuguese

If we take into account what has been said about the interpretation of multiple negation and negative imperatives in AP, we see that we have to do with a language with ambiguous behavior which should be classified as a strict NC language that does not allow true negative imperatives, rather than a non-strict NC language. This generalization could be made

[9] ForceP is a functional category which hosts or changes the illocutional force of the sentence. The imperative is told to raise to ForceP. As it is a head of another functional category its move results in a head adjunction.

[10] Zeijlstra mentions Greek, Romanian, Hungarian, Hebrew, Catalan, French and English as the examples of languages which are non-strict NC and ban true negative imperatives at the same time.

[11] The 3rd person singular is used for calling somebody Mr.(s), the 3rd person plural is in general used for calling two or more people. The 2nd person plural is not used is CSP.

[12] Vicente G., Auto da Barca do Inferno.

[13] Vicente G., Auto da Mofina Mendes.

only on condition that we disregard the fact that the original versions of the verses of Gil Vicente contained, besides the typical strict-NC structures, different sentential negative structures, typical of the non-strict NC languages – CSP for instance.

The irregularity of co-occurrence of a negated verb with preverbal n-words in the work of Gil Vicente could have more interpretations: the AP represents a diachronic stage of Portuguese in transition from strict[14] to non-strict languages where the right usage of negative elements is not yet fixed, or the distinction between strict and non-strict NC languages is not fine-grained enough, or both. The AP is not the only case of a diachronic stage of contemporary language which is showing such ambiguous behavior. Dočekal (2010) encountered a similar phenomenon while analyzing Old Church Slavonic, the ancestor of contemporary Czech which can also be seen as a transit stage, nevertheless showing opposite direction of evolution: from a non-strict to a strict NC language. It appears that the rule, saying that the negation marker should (in the case of Czech) or should not (in the case of Portuguese) precede the verb when following the preverbal n-word, was not always self-evident and got fixed relatively late in the diachronic evolution of both languages (even if much earlier in Czech). We expect that the switching between strict and non-strict NC languages is not limited to Portuguese or Czech and that more languages have followed a similar way of evolution in one of the described directions. Another possibility is that the rule was already fixed in the time of Gil Vicente and the use of the negated verb with preverbal n-words served as an indicator of less educated social group members (in the contrast with more competent individuals omitting the negative marker) does not count because the "incorrect" sentential negation has been found in dialogs of the characters such as angels. Besides this we know that the phenomenon is not limited to the dramatic pieces of Gil Vicente.

Syntactic theory of the negative concord

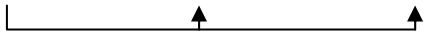
How does the current syntactic theory explain the asymmetric behavior of the negative elements in the non-strict NC languages in the context of all NC languages? The most recent approach which proposes how to explain the grammaticality of certain negative syntactic structures and the ungrammaticality of others has been developed by Zeijlstra (2004) and Penka (2007) on the basis of formal semantics and partially also on some tools from current version of generative grammar, the so-called minimalist program. The central assumption is that the NC is a form of syntactic agreement in terms of clause-bound feature checking: the negative elements which are subjected to NC are approached as semantically non-negative[15], thus carrying an uninterpretable feature [uNEG] which has to be checked against an element with an interpretable feature [iNEG]. This element always gets interpreted semantically as negative but it is not necessarily required to be expressed morpho-phonologically as we will see later.

[14] Only under the condition that there was a stage where the AP behaved regularly as a strict NC language and it did not permit non-strict NC structures at all. We can only approach this stage as a model situation because we did not manage to collect proofs of its existence in the past.

[15] Semantic negation means that every negative element corresponds 1:1 to a negative operator. (Zeijlstra 2004: 244).

The non-strict NC languages are specific in the fact that the general negative marker (*não* in Portuguese) is base-generated in a head position of NegP and carries always the interpretable feature [iNEG] against which the remaining negative elements need to be checked. It means that the negative marker preceding the verb, lexical or auxiliary, is required to be present in the sentence because each post-verbal n-word needs to be checked against it – as in the example (21). Due to the minimalist principle of economy each sentence contains only one[16] [iNEG]-feature which can license several [uNEG]-features simultaneously.

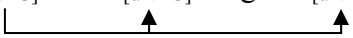
(21) Ele não$_{[iNEG]}$ diz nada$_{[uNEG]}$ a ninguém$_{[uNEG]}$.



He neg tells n-thing to n-body.
'He does not tell anything to anybody.'

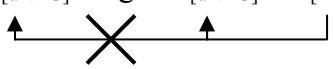
The [iNEG]-feature which is carried by the negative marker is called overt. As stated before, the interpretable feature can be of a different nature: it could be present even if there is no morpho-phonological element available to carry it. In this case we talk about a covert [iNEG]-feature carried by an abstract negative element, written as Op¬. This operator licenses n-words in some restricted environments when the overt licenser, the negative marker, is not available. That is when the n-words are situated to the left of the verb as we saw in the example (15).

(15) Op¬$_{[iNEG]}$ nunca$_{[uNEG]}$ ninguém$_{[uNEG]}$ viu esse espetáculo.



An overt licenser added to this sentence would not be in line with the economical restriction of [iNEG]-feature: [iNEG] would be present twice. The reason why in the non-strict NC languages the overt licenser gets substituted by the covert one in this kind of constructions is not that obvious at first sight and has an explanation in the position of the [iNEG] operator in the syntactic constituent structure tree. The element which carries [iNEG]-feature, even if it is Op¬, is required to c-command[17] the element with the [uNEG]-feature, it means it needs to be higher in the surface syntax tree, otherwise it is not able to license it. In other words, the negative marker in the sentence (15b) does not c-command the n-words *nunca* and *ninguém* (once they are situated to the left of it); that is why its [iNEG]-feature is not able to agree with the [uNEG]-features and the whole sentence must be seen as ungrammatical.

(15b) * Nunca$_{[uNEG]}$ ninguém$_{[uNEG]}$ não$_{[iNEG]}$ viu esse espetáculo.



[16] It contains no [iNEG]-feature only in the case where there are no [uNEG]-features in the sentence to be licensed; on the contrary two [iNEG]-features could be present under specific circumstances – see the example (12) – in which they cancel each other out as it is usual in the DN languages.

[17] α c-commands β if every phrase that contains α contains β, and at the same time α does not contain β.

In addition, the morpho-phonological realization of the overt negative operator would not contribute to the interpretation of the sentence in this case. That is why it is functionally absent, similar to the strict NC languages where the negative marker is argued to carry a [uNEG]-feature. On the other hand, the omission of the negative marker (the substitution of the overt operator by the covert one) in the sentence (21) could generate ambiguous interpretations.

As we have seen before, the AP behaves as a strict NC language making the sentence (16), syntactically almost identical to (15b), acceptable. This would of course pose a serious problem for the theory of Zeijlstra and Penka if the semantic status of the sentential negative marker remains the same. Nevertheless Zeijlstra argues that the negative marker has a different status of interpretability in the strict NC languages: it is not semantically negative, which means it is not able to license other negative elements in the sentence (n-words always carrying the [uNEG]-feature). The theory predicts that the negative marker *não* in AP carries [uNEG]-feature and it merely marks a presence of the covert negative operator Op¬, as well as all n-words in the sentence do. In order to be interpreted as semantically negative, the negative marker needs to be checked against the abstract negative operator.

(16) Op¬ $_{[iNEG]}$ já ninguém$_{[uNEG]}$ não$_{[uNEG]}$ se preza da vitória em se salvar!

If the theory counts also for AP, which should be the case, there are still two problematic questions to be answered.

1. Why should the negative marker be present in phrases like (16) if it does not carry the [iNEG]? From this point of view it is redundant (which is a serious violation of the economy principle) and it does not seem to contribute to the interpretation of the sentence either.
2. How is it possible that the negative marker *não* in sentence (22), which is grammatical in both AP and CSP, carries once an [uNEG] (in AP) and once an [iNEG]-feature (in CSP) without any impact on the morpho-phonological reality?

(22) Isto não revela nada.[18]
This neg reveal n-thing.
'This does not reveal anything.'

Negation in Contemporary Colloquial Brazilian Portuguese

Ramos (2006) presented a very interesting study about the Contemporary Colloquial Brazilian Portuguese (CCBP) where she described tendencies of admitting new structures of sentential negation. There are three possible structures to be distinguished – examples from Armstrong (2008):

[18] Vicente G., Auto de Inês Pereira.

NEG1 – with the pre-verbal negative marker, the structure is identical to the correct structure in the CSP.

(23) O João **não** come carne.
John neg eat meat.
'John does not eat meat.'

NEG2 – with both pre-verbal and post-verbal negators; this structure is not common in CSP but according to Matos (2003) – see her example (25) – it is also acceptable there as a way to emphasize the action or state expressed by the verb. It appears typically in exclamations. The post-verbal *não* in the NEG2 of CCBP has apparently such emphatic function too, rather than a function of the negative marker. That is why Schwegler (1986) proposes to call it emphatic negative element or just empathizer and distinguishes it from regular post-negative markers, also called negative adverbs, which in fact have developed from empathizers, as for example *pas* in Standard French. Schwegler observes that such repetition of negators is common in Romance languages[19]. It is also important to note that the emphatic negative element is intonationally prominent (that is why it is usually preceded by a comma) and should appear, in contrast to the French negative adverb *pas*, in the final position of the phrase. That means it could never be followed by any complement of the verb – compare the examples 24a and 24b. Cavalcante (2007) therefore proposes to call it sentence final negation and approaches it in a different way than negative adverbs.

(24a) O João **não** come carne, **não**.
John neg eat meat neg.

(24b) Jean ne mange pas de la viande.
John neg eat neg meat.
'John does not eat meat.'

(25) Não saio de casa hoje, não!
Neg leave.1.SG the house, neg!
No, I don't leave the house.'

NEG3 – with the post-verbal negator only; this structure is completely ungrammatical in CSP. The position of the post-verbal *não* is analogous to the status of the empathizer in NEG2, it is in fact also a sentence final negation marker.

(26) O João come carne, **não**.
John eat meat neg.
'John does not eat meat.'

[19] In addition to Brazilian and Peninsular Portuguese he provides examples from Spanish, Palenquero, Chocó and some French and Romansch dialects.

Ramos (2006) observes that the negative marker in CCBP frequently gets reduced to the monophthongized form *num* [nũ][20] under the condition that it is pre-verbal (it means only in NEG1 and NEG2 structures). The phonetic reduction of the pre-verbal negative marker (27) and its distinction from the fully pronounced post-verbal *não* (28) was most probably an important step towards the innovative structure NEG3. The reduced pre-verbal negative marker in NEG2 became optional. Let us mark the following steps as NEG1a and NEG2a.

NEG1a.
(27) O João **num** come carne.
John neg eat meat.
'John does not eat meat.'

NEG2a
(28) O João **num** come carne, **não**.
John neg eat meat neg.
'John does not eat meat.'

I suppose it is quite evident that the negation in the CCBP has followed one of these variants (if not both at the same time) of the chronological process:

NEG1 → NEG2 → NEG2a → NEG3.
NEG1 → NEG1a → NEG2a → NEG3.

Similar diachronic developments are characteristic for several languages, e.g. French[21] and Dutch, and are known as the Jespersen Cycle. Jespersen published in 1917 a study *Negation in English and other Languages* in which he introduced a famous model of cycle for a gradual change of sentential negation in various languages. By a number of examples he demonstrated a general tendency for languages to change in the common direction:

– from phase I (negation is only expressed by a single negative marker attached to the verb, mostly proverbially – this phase corresponds to our form NEG1)
– via phase III (the negative marker attached to the verb has to be obligatorily completed by a negative adverb following the verb – to be compared with the form NEG2)
– via phase V (the negative adverb is the only available negative marker. No negative marker attached to the verb is available – to be compared with the form NEG3)
– back to phase I. The phases II, IV and V correspond to transition states.

[20] There are regions in Brazil where this does not happen (i.e. to the South from Minas Gerais). On the other hand, there are also regions in Portugal where the monophthongized form replaces the standard form of the negative marker. In this case it is a rather archaic feature as the Latin negative marker *non* was also monophthongized.
[21] With respect to French: this process has not yet been concluded in the Standard French, only in the Colloquial French so far.

In the typological study of Zeijlstra (2004) it has been shown on the example of Dutch that the development from phase I up to the phase V could take a long time, approximately eight centuries in the case of Dutch. Of course a successive change of standard written language is much more complex than fast changing colloquial tendencies as shown in CCBP, for example. The principle is the same, anyway.

Let us go back to CCBP. We got acquainted with the forms NEG1 (NEG1a), NEG2 (NEG2a) and NEG3. They share all the same propositional meaning and are used at the same time, it means they co-exist synchronically. In addition, Ramos (2006) has shown that the reduced form *num* as well as the use of the negative marker *não* as a post-verbal negative adverb are mainly used in the spoken expression of the young generation, thus the sociolinguistic distribution of the basic three forms of sentential negation in CCBP is in a very progressive way of change. Another important observation has been made by Armstrong and Schwenter (2005: 1): each of the forms has a different informational status.

"The discourse licensing conditions for these forms are tied to the accessibility of the negated proposition in the common ground. The discourse licensing conditions for these forms are tied to the accessibility of the negated proposition in the common ground. The canonical form NEG1 can be used to negate a proposition that has any degree of accessibility. Noncanonical NEG2 and NEG3, however, can only be used to negate propositions previously activated in the ongoing discourse record. The crucial distinction between NEG2 and NEG3 is that NEG2 is felicitous where the negated proposition is either explicitly evoked in the discourse or merely inferable on the basis of other activated propositional content; this is not the case for NEG3, which must negate a proposition that has been explicitly evoked in the discourse".

From what has been said in this chapter we can conclude that the adoption of new structures of sentential negation in CCBP (NEG2 and NEG3) in fact does not mean any menace to the grammaticality of the standard CSP structure NEG1 and does not seem to change anything on the classification of CCBP as non-strict NC language as the negator *não* appearing in the post-verbal position is of an emphatic nature, rather than a real negative element. Its further analysis would therefore be a challenge for the pragmatics rather than for the syntax. The arguments that it has an identical morphosyntactic form[22] as the pre-verbal sentential negation marker and it is in the sentence's final position are, in my opinion, legitimate for such classification. At least this is obvious as regards NEG2. The structure NEG3 seems to be more complicated from this point of view once it does not make use of a pre-verbal negative marker. Nevertheless, Rizzi (1997) proposed a solution: to approach the sentence final negation markers as topic phrase markers which, in a way similar to negative polarity items, give a positive or negative interpretation to the rest of the sentence without having direct impact on its syntactic structure. They are mechanically added to a sentence which has just been completed. From this point of view NEG2 and NEG3 do not differ in a significant way.

[22] The reduced form still needs to be seen, in my view, as a first step towards the morphosyntactic changes which would result in the functional evolution of the element: from the sentence final (emphatic) negative element to the post-verbal negative adverb.

Conclusion

The Sentential negation, and the negative concord in particular, is a complex phenomenon which is far from being diachronically invariable. We could observe in the example of Portuguese, that the main reason for the diachronic variation in the field of negation is the changing semantic status of the sentential negative marker *não*, according to the theory developed by Zeijlstra and Penka. The non-strict negative concord language as it is now has developed from Archaic Portuguese which could be considered a strict NC language. The negative marker was originally required to accompany the semantically negated verb at any time, even in the co-occurrence with pre-verbal n-words. The negative marker was semantically non-negative which means that it had to participate, together with the remaining negative elements in the sentence, in a feature-checking relation with an abstract negative operator, free of phonological content.

Later on, in Contemporary Standard Portuguese, the negative marker adopted the function of a semantically negative operator against which other negative elements in the sentence (so called weak n-words) need to be checked. Where the negative marker could not license the n-words due to syntactical constraints (those n-words were pre-verbal) it was not desirable to appear anymore and was simply replaced by the abstract negative operator for reasons of economy.

The acceptance of new structures of sentential negation in Contemporary Colloquial Brazilian Portuguese is proof that the system of sentential negation in Portuguese tends to evolve further in the common direction described by O. Jespersen. It is problematic however to examine the new structures of sentential negation within the Penka/Zeijlstra's theory. Contemporary Colloquial Brazilian Portuguese is without doubt still a non-strict NC language which makes use of the negation marker *não* in a different way than is common in Standard Portuguese: it places it in the sentence's final position to give a negative interpretation to the content of the sentence and to emphasize it at the same time.

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