

DOI: 10.2478/v10319-012-0008-9

PROSODIC AND SEMANTIC PROPERTIES OF INTONATIONAL PHRASES TANJA MILIĆEV, NATAŠA MILIĆEVIĆ, MAJA MARKOVIĆ

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**Abstract:** The aim of this paper is to investigate the relation between prosodic and semantic properties of Intonational Phrases, based on the facts from Serbian. The production tests and elicited judgements show that the prosodic integration of the embedded IPs (appositives, parentheticals, and the left-peripheral adverbs) has a distinct semantic effect, or is accompanied by the narrow focus interpretation within the proposition modified.

Keywords: conventional implicature, focus, intonational phrase, prosodic integration

1. Introduction

In discussing prosodic properties of Intonational Phrases (IPs), we follow the theory of Prosodic Phonology (Nespor and Vogel 1986, Selkirk 1984, 1986). Specifically, we assume that phonological representations are organized into prosodic structures, which are based on but not isomorphic to syntactic structures. We adopt the view that IPs typically correspond to the root clause in the syntactic representation (Emonds 1970), but also to parentheticals, appositives, appositive relative clauses, heavy constituents, tag questions, and certain preposed elements, which can also form a separate IP (cf. Nespor and Vogel 1986, Selkirk 1984, 1986, among others).

We will assume that the prosodic and meaning difference indeed stem from different syntactic information, whether stated in structural terms or in "featural information", which serve as instructions to the interfaces (e.g. comma-feature for semantics, focus feature for both semantics and phonology/prosody).

As far as the prosodic properties of IPs are concerned, we will assume that these prosodic constituents are characterized by comma intonation.

Regarding their semantic nature, we follow the proposal by Potts (2003), later adopted and built upon by Selkirk (2005), that comma intonation is the phonological realization of the syntactic [+Comma] feature, and its semantic reflex is the so-called "conventional implicature" (CI) interpretation.

In the current work, we focus on the data from Serbian, which has an excellent diagnostic tool for identifying IPs – clitic placement. Serbian clitics are sensitive to I-boundaries, and can't appear in their regular second-position if the first constituent in the clause projects its own prosodic domain, namely IP. This PF filter forces the clitic to appear in a lower (clitic-third) position:

## (1) \*[XP]mclitic

Occasionaly, however, these elements do allow clitics to attach to them, which predicts that in those cases the I-boundary is eliminated. In the following sections, we discuss the possibility of prosodic integration of these syntactic elements. Specifically, we address the issue of how the change of the prosodic properties of syntactic constituents affects their semantic properties.

## 2. Semantic Effects of Prosodic Integration

## 2.1 Appositives

In discussing some apparent violations of the generalization regarding the clitic-second effect, specifically, the cases where clitics are found immediately after appositives, Marković and Milićev (to appear) show that the possibility of clitic attachment to some appositives brings about both a change in the set of boundary features and a change of meaning.

In terms of meaning, prosodically integrated appositives are no longer interpreted as "supplemental" but rather as "restrictive" or semantically "integrated":

- (2) a. Majinetetke, profesorice latinskog su mi objasnile ablativ. Maja's aunts professors of-Latin AUX me explained ablative "Maja's aunts, professors of Latin explained ablative to me"
  - b. Majinetetke, profesoricelatinskog, objasnile su mi ablativ.
    Maja's aunts professors of-Latin explained AUX me ablative
    "Maja's aunts, professors of Latin, explained ablative to me"

In (2a), the integrated appositive restricts the meaning of the antecedent, while the appositive in (2b) specifies the meaning of the antecedent. In other words, the sentence (2a) implies that *Maja* could have more aunts, whereas this implication is absent in (2b).

### 2.2 Parentheticals

In the production study by Marković and Milićev, parentheticals have been shown not to be as flexible as appositives. At least in the cases investigated, they quite regularly disallowed cliticization: the I-boundary features were almost always all present, and the speakers regularly judged the sentences as highly infelicitous. This strongly suggests that parentheticals cannot be integrated. But this prediction is, in fact, wrong.

Ever since Nespor and Vogel (1986), parentheticals (comment clauses, as-parentheticals, interjections, etc.) have commonly been assumed to project their own intonational domain. More recent studies, however, have shown that the generalization is too strong, since some parentheticals can be integrated into the intonational domain of the main clause (cf. Dehé and Wichmann 2010).

According to these authors, parentheticals can have (a) propositional contribution - i.e. they contribute to the truth-value of the proposition, can (b) discoursal/interactional/interpersonal function. In the latter case, parentheticals can be used to indicate information-structural organization of the sentence (for instance, they can be used to set off a marked theme). Their pragmatic function is to attach an illocutionary commitment to the host utterance. According to Dehé and Wichmann, parentheticals which are reduced to a discourse function will behave as integrated, i.e. will be phrased below IP.

The production study of parentheticals in Serbian has shown that they almost always come with an I-boundary, and thus block cliticization. We hypothesize that the reason why the option of alternative phrasing was not more clearly reflected in the study is due to the restricted range of parenthetical expression investigated, as well as the research methodology applied. We believe that much more conclusive results can be obtained if the data were drawn from a spoken corpus of Serbian, rather than by elicited production.

# 2.3 Left-Peripheral Adverbials

It is a well-known fact that some left-peripheral adverbials are typically associated with an I-boundary. According to Potts, these adverbs are marked by Comma feature. Consequently, phonology assigns them comma intonation, and in the semantics, they are interpreted as conventional implicatures (CIs). Based on the data from English, Potts states that the +Comma adverbs include subject-oriented, speaker-oriented, speech-act adverbs, and discourse adverbs. All CI items can be then understood as comments upon an asserted core, "providing a means for a bit of editorializing on the part of speakers" (Potts 2003:206)

In Serbian, however, some of these adverbs either do not project an IP, or can, alternatively, come without an I-boundary, thus permitting cliticization:

(3) [adverb]m [XP clitic...]m [adverbclitic ...]m

### 2.3.1 Subject-Oriented Adverbs

The sharpest contrast with English, at least, concerns subject-oriented adverbs. They do not trigger any clitic delay (4a), which strongly indicates that they do not come with comma intonation:

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(4) a. [Pametno ga je poneo sa sobom] p

Wisely him AUX taken with self

"It was wise of him to have taken it with him."

b. #[Pametno] pp[poneo ga je sa sobom] p

wisely taken him.ACC.CL.AUX.C with self

"It was wise of him to have taken it with him."
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Subject-oriented adverbs can also have a manner interpretation. Since manner adverbs in Serbian can occupy sentence initial positions (usually when they bear narrow or contrastive focus), a sentence like (4a) is always ambiguous between a subject-oriented and a manner reading of the sentence-initial adverb.

### 2.3.2 Speaker-Oriented Adverbs

In the proceeding discussion we will adopt the following classification of the speaker-oriented adverbs (cf. Ernst 2002 and the references there): a) epistemic, which are further divided into (i) modal and (ii) evidential; b) evaluative, and c) speech-act.

*Modal adverbs*, according to Ernst (2002:73), are a speaker's assertions about the degree of certitude of the truth-value, expressed in terms of possibility or necessity. They take as their objects propositions whose truth-value is unspecified (i.e. unknown by the speaker). Unlike other "clausal" or "sentential" adverbs, modal epistemic can only operate on propositions and cannot have event-modifying function (e.g. manner reading).

In Serbian, most modal epistemic adverbs prefer to be integrated, as illustrated with a modal epistemic in (5), which is not predicted by Pott's analysis:

(5) a. Možda će mu saopštiti novost. maybe will.CL him.DAT.CL tell news "Maybe, they will tell him the news."

Evidential adverbs describe the manner (specifically, the ease or clarity) of perceiving the truth of their object proposition, which must be true and thus a fact. That evidentials can also have manner reading, Ernst, for instance, explains in the following way: evidential epistemics are predicates of the perception of something, and many other things besides truth may be perceived. – they can select either for propositions or for events, i.e. allow the manner reading as well.

In Serbian, evidentials, as opposed to modals, allow dual prosodic phrasing, as evidenced from the possibility of having both clitic-second and clitic-third orders, illustrated in (6a) and (6b), respectively:

a. Očigledno sam preporučila Mariju klijentima.
 obviously AUX.CL recommend Mary to-clients
 "I recommend Mary to the clients obviously (in an obvious way).
 b. Očigledno, preporučila sam Mariju klijentima.
 "Obviously, I recommended Mary to the clients."

The difference in prosodic phrasing usually corresponds to the difference in interpetation (integrated match the manner reading, whereas non-integrated are interpreted as evidential). However, an adverb can be integrated and still have a speaker-oriented reading. This means that (6a) for instance, can, alternatively, have the same interpretation as (6b).

*Evaluatives* represent the speaker's evaluation of some state of affairs, and they can be pure or dual evaluatives, depending on whether the adverb also allows a manner reading. Again, it seems that dual prosodic phrasing serves to distinguish them:

(7) a. Srećom, dobro ga poznajem.
by-luck well him<sub>ACC,CL</sub> I-know
"Luckily, I know him well."
b. Srećomga dobro poznajem.
by-luck him<sub>ACC,CL</sub> well I-know
"It is by luck that I know him well."

However, as shown in (8), the adverb immediately followed by a clitic does not have a manner interpretation:

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(8) a. Začudo ga ne poznajem.
oddly him.ACC.CL not I-know
"Oddly, I don't him."
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If the change in prosodic phrasing does not bring about a change in meaning, this represents a serious problem for Pott's analysis. It looks like the Comma feature is ignored by phonology. Upon a closer look, however, some differences between clitic-second and clitic-third orders with these adverbs can be noticed:

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(9) Normalno ga pijemdvaput dnevno.
normally it.ACC.CL drink twice a-day
"Normally, I drink it twice a day"
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It expresses that the normal state of affairs is for me is to drink it twice a day, but in addition, the sentence triggers alternatives, and a continuation is expected, where this normal state of affairs is contrasted with some other (i.e. exceptional) state of affairs (e.g. but today I will drink it only once). The adverb itself looks like a topic, or is included in the background (of the focus):

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    (10) a. Koliko često ga normalno piješ?
    "How often do you normally drink it?"
    b. [Normalno ga pijem]<sub>background</sub> [dvaput dnevno]<sub>foots</sub>
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Interestingly, the focus interpretation becomes even more evident when the proposition, or main assertion does not involve the speaker:

(11) **Prirodno/Nažalost** je Petar odustao od takmičenja.

naturally/unfortunately AUX<sub>CL</sub> Peter given up from competition

"Naturally/Unfortunately/Oddly, Peter gave up the competition."

The examples in (11) clearly show that the sentence initial adverb can only be integrated if there is an element with narrow focus in the main proposition, or the adverb itself has narrow focus.

Speech-act adverbials are generally assumed to always have a manner reading as well. The I-boundary distinguishing the speaker-oriented from the manner reading is illustrated in (12):

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(12) a. Iskreno, to mu zameram.
honestly that him hold-against
"Honestly/Frankly, I hold it against him."
b. Iskreno mu to zameram.
Honestly him that hold-against
"It is in an honest way that I hold it against him."
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(12b), though, is not impossible under the speaker-oriented interpretation, and, focus, again, plays a significant role in the clitic-second orders (e.g. in this case, a narrow focus on the verb).

#### 5. Conclusions

In this paper we have shown that Serbian offers plenty of evidence for the strong correlation between intonational phrasing and meaning. In our discussion of left-peripheral adverbials, we have shown that their analysis as supplements is not as straightforward as proposed by Potts. First of all, the obligatory integration of modal adverbials into the "at-issue" content, suggests that their relation to the proposition they "modify" includes more than merely providing a speaker's perspective on the proposition. We have also shown that most other speaker-oriented adverbs allow dual prosodic phrasing, and that this is largely due to the influence of focus.

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