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# POSITION OF THE NUCLEUS IN AN INTONATION PHRASE IN ENGLISH AND SLOVENE

#### Abstract

The paper compares tonicity, that is the position of the nucleus (the tonic, or the nuclear syllable) in an intonation phrase (IP, also referred to as a word group) in English and Slovene. After a brief explanation of different degrees of accentuation, based on O'Connor and Arnold (1973) and Cruttenden (1986) accentuation in non-verbal and verbal structures in English and Slovene is compared, pointing to the main differences with regard to the position of primary accent, and consequently tonicity in the two languages. The main findings are confirmed and extended by comparing tonicity in the dialogues given in O'Connor and Arnold (1973) and in the examples presented in Wells (2006). The main differences between the two languages are observed in wh-questions (nucleus on the wh- word in Slovene but not in English) and sentences in the negative form (nucleus on the negating word in Slovene but not in English).

Key words: sentence nucleus, sentence intonation, Slovene, English, contrastive analysis

#### **1. INTRODUCTION**

The nucleus is usually defined as the last accented (that is strongly stressed and pitch prominent) syllable in the intonation unit. To illustrate this for the two languages, let us take the following English IP and its Slovene translation: *Peter is his brother. Peter je njegov brat.* 

This particular IP can be regarded as, for example, someone's answer to the question: *Who's Peter*? In this case, both languages would probably have a similar distribution of unstressed, weakly stressed and strongly stressed syllables. We can expect some difference only due to the fact that in English the word *his* is monosyllabic and unstressed, while the corresponding Slovene *njegov* is disyllabic, with the second syllable stressed. But with regard to the more important, strongly stressed syllables we can expect that these will be the same in English and Slovene. i.e. the first syllable of *Peter* and the first one of *brother* vs. the only syllable of *brat*. Since *Peter* was mentioned already in the question, it will probably be less prominent than *brother/brat*. Regardless of this, however, following the above definition, it is the stressed syllable of *brother* in English and of *brat* (which is actually the only syllable in this word) in Slovene that is the nucleus in each IP. The fact that in English another syllable follows the nucleus is irrelevant with regard to what we are dealing with here, namely the issue of tonicity. It

would be interesting, however, if the tonic syllable in one (but not the other) language was on one of the other words in the segment, for example on *Peter*.

It is actually possible for both languages to have the nucleus on almost any word in the IP, but probably not on any syllable, because in both English and Slovene the word *Peter* can only be stressed on the first and not on the second syllable. (Compare, however, the exceptional contrastive tonicity overriding word stress in Wells (2006).)

Let us imagine now that the question was not *Who's Peter?* but rather *Who's his brother?* The tonicity in the answer changes both for English and Slovene: *Peter is his brother. Peter je njegov brat.* 

The nucleus has been shifted to the stressed syllable of the first word, because now *Peter* is in (the so-called narrow) focus as the important part of the message (and the rest of the IP could actually be left out).

Compare this now with the following English utterance and its possible Slovene counterpart:

#### Where did he go? Kam je šel?

It would be difficult to claim that the difference in the position of the nucleus illustrated here follows some hard and fast rule but it seems something fairly typical, in the same way as the above overlap of tonicity in the two languages is.

Notice, however, that things are somewhat more complicated. With an addition of a seemingly irrelevant particle to the Slovene utterance we get the nucleus at the same position as in English:

#### Where did he go? Kam pa je šel?

In any case, it seems that there is something about different grammatical phrases and semantic structures of word groups that influences the position of the nuclear syllable, and I will try and identify some of those structures that seem to lead to a different position of the tonic syllable in English and Slovene.

#### 2. DEGREES OF ACCENTUATION IN ENGLISH AND SLOVENE

Considering different factors contributing to the prominence of a syllable, we can distinguish four degrees of stress in the two languages, which could be explained as follows:

- 1. unstressed syllables: these are pronounced with the lowest degree of loudness in auditory terms (resulting from the lowest "amplitude" of articulation in acoustic terms); such syllables are relatively short and tend to contain the socalled "weak" vowels, i.e. short vowels of centralized quality, their typical representative in English being the "schwa", which can actually only occur in such syllables;
- 2. tertiary-stressed syllables: these are slightly louder and longer than unstressed, and they tend to contain one of the "strong" vowels, some of which may not be used in unstressed position (as for example the "close" /e:/ and /o:/ in Slovene, e.g. in *peti* 'sing' and *poti*, dual nom. of 'path'); however, in the same way as

unstressed syllables, these are still "non-prominent" syllables from the viewpoint of pitch position and movement – the pitch of one's voice during the articulation does not change drastically but only precedes or follows the pitch movement established by one of the "pitch prominent" syllables elsewhere in the intonation unit;

- 3. secondary-stressed syllables: these are not only louder and longer than unstressed syllables but also pitch prominent (usually in the sense of starting an upward or downward movement of pitch in the intonation unit); however, they are always followed by an even more prominent syllable at any point to the right of this syllable;
- 4. primary-stressed syllables: these are similar to the secondary-stressed syllables, except that they are the only type of syllable that can form an intonation unit on their own, and can thus carry a very complex pitch movement in addition to a simple fall or rise. Such a syllable is called the *tonic* or *nuclear syllable (the nucleus)*, and can, for example, contain a fall followed by a rise or a rise followed by a fall when it is the only or the last syllable in the intonation unit (the word group).

All the syllables before the secondary-stressed, between the secondary- and the primary-stressed, and after the primary-stressed are therefore pitch non-prominent, but some of them may have a tertiary stress. The syllables with a secondary or primary stress are (due to their pitch prominence) often termed *accented*, those under (2) *stressed*, and those under (1) both *unaccented* and *unstressed*.

The above explanation is mostly, although not completely in line with those of O'Connor and Arnold (1973) and Cruttenden (1986); it differs somewhat more essentially from the approach by Toporišič (1984), but I will not go into further detail here. Suffice it to say that, for the purpose of the present contrastive analysis, which focuses on the position of the nucleus, we can disregard the minor distinctions between tertiary-stressed and unstressed syllables, and try to identify in particular instances of (typically) different positions of the nuclear syllable in the two languages, as illustrated above.

In the contrastive subsections that follow, the primary-accented syllables will be marked **p**, the secondary-accented **s**, and all the other syllables simply as *unaccented*, thus **u**. The diacritics used with the examples will be (") for primary-accented and (') for secondary-accented, e.g. in *'which "train (s+p)*. I will present here only those grammatical phrases and syntactic structures in which the position of the primary-stressed syllable differs in the two languages analysed, and leave out all those for which it is obvious that the position of that syllable is the same. When the phrase or structure is illustrated by a complete intonation unit either in English or Slovene, the presentation is simplified by capitalizing the word carrying the nuclear syllable, e.g. *This is difficult to REMEMBER*. The nucleus, of course, is the accented syllable – *mem*-, rather than the whole word.

Two other abbreviations are **E** for English and **S** for Slovene.

# 3. ACCENTUATION IN NON-VERBAL AND VERBAL STRUCTURES IN ENGLISH AND SLOVENE

#### 3.1. Non-verbal structures

#### 1. preposition + personal pronoun

#### E: p+u "with him S: u+p z "njim

This seems to be a typical difference between the two languages, although it is of course possible to have the pronoun accented in English in the case of the so-called narrow (or contrastive) focus, e.g. in *They were talking about HIM, not about ME*. In Slovene, on the other hand, the preposition is only accented in some one-word combinations of prepositions and pronouns, mostly when the preposition is *za* (English *for*). Thus: *To je ZAme/ZAnj* vs. *To je za MENE/za NJEGA*..

### 2. compound place names: adjective/noun + noun

#### E: s+p 'Oxford "Road S: p+u "Oxford Road

In most cases of adjective+noun combinations, the accentual structure is the same in English and Slovene (e.g. 'North "America vs. 'Severna "Amerika). However, with noun+noun, when the second noun is e.g. road, square, park, etc., we tend to have the primary accent on the first element in Slovene, which is probably influenced by the domestic place names of this kind (e.g. "Stari trg, "Dunajska cesta, etc.)

#### 3. intensifier + adjective/adverb

#### E: s+p 'too "tired S: p+u pre"več utrujen

Although both patterns are possible in the two languages, there seems to be a stronger tendency for Slovene to focus on the intensifier, and for English to opt for the final position of the primary accent. Compare also the typical (though not obligatory) difference between the following sentences:

The book is awfully DULL. Knjiga je GROZNO dolgočasna.

#### 4. NOT + noun/pronoun/adjective/adverb

#### E: s+p 'not "Robert, 'not "seven, 'not "yesterday

#### S: p+u "ne Robert, "ne sedem, "ne včeraj

This is one of the most obvious patterns where the accentuation clearly differs in the two languages. To show the distinction more clearly in context, compare the following:

#### He does come round, but not very OFTEN. Pride včasih, a NE prav pogosto.

It seems that there is a general rule according to which negations are typically expressed in Slovene by the nucleus on the <u>negating</u>, and in English on the <u>negated</u> element.

5. interrogative determiner + noun/adjective/adverb/preposition E: s+p 'how "long, 'what "time, 'which "train, 'how "often, 'where "from S: p+u ka"ko dolgo, ob ka"teri uri, ka"teri vlak, ka"ko pogosto, (od "kod)

The last phrase is not fully comparable, because in English the interrogative word usually precedes the preposition, and in Slovene it is the other way round. In all other cases above it is quite clear that the interrogative words tend to have a primary accent in Slovene but not in English.

6. comparative + than + noun/pronoun/adverb

E: s+u+p 'better than "mine S: p+u+u "boljši kot moj

Compare for example:

I still think his car is better than MINE. Še vedno mislim, da je njegov avto BOLJŠI kot moj.

#### 3.2. Verbal structures

1. negative auxiliary + main verb

E: s+p 'won't "write, 'can't con"tinue, 'needn't "wait

#### S: p+u ne "bom pisal, ne "morem nadaljevati, "ni treba čakati

Similarly to 4 above, the primary accent in English is placed later (on the main verb) than in Slovene (on the auxiliary or the negating word). Compare also:

You mustn't TELL him. Ne SMEŠ mu povedati.

2. adverb of frequency + verb

E: s+p 'never "comes, 'always com"plains

S: p+u ni"koli ne pride, "vedno se pritožuje

The typical difference shown above seems to be more common with some of these adverbs, e.g. *never*, *always*, *often*, but not with some others. Compare for example:

He never COMPLAINS.NIIHe sometimes COMPLAINS.Vča

NIKOLI se ne pritožuje. Včasih se PRITOŽUJE

3. negative form of BE + preposition + noun

E: s+u+p 'aren't on the "table S: p+u+u "niso na mizi

Once more we can see that in the negative form the primary accent is at different positions in the two languages. The same can be observed in the structure below.

4. negative form of BE + noun/pronoun/adverb E: s+p 'isn't my "father, 'isn't "there, 'wasn't "happy S: p+u "ni moj oče, "ni tukaj, "ni bil srečen

#### 5. indefinite pronoun + verb

E: s+p 'everybody "lies, 'nobody's "left S: p+u "vsi lažejo, nih"če ni odšel

As in structure 2 above, some pronouns typically carry the primary accent in Slovene, but not all. We can compare again:

Nothing is IMPOSSIBLE.	NIČ ni nemogoče.
Something is POSSIBLE.	Nekaj je MOGOČE.

#### 6. THERE + 3<sup>rd</sup> p.sg. of BE + NO + noun E: u+u+s+p *there is 'no "truth* S: p+u *"ni resnice*

It would be difficult to explain why the above difference does not always apply. In Slovene it is often possible to have the primary accent at different positions, depending most probably on the context of the interaction:

There will be no MONEY this year. Letos ne BO denarja. / Letos ne bo DENARJA.

#### 7. interrogative pronoun <SUBJECT> (+ auxiliary verb) + main verb E: s(+u)+p 'who has "come? 'who'll "help? 'who "knows? S: p+(u)+u "kdo je prišel ? "kdo bo pomagal? "kdo ve?

The same difference in accentuation can be observed here as with the "interrogative determiner" above. It is interesting, however, that in Slovene the position of the primary accent can be distinctive here in the sense of differing between *yes-no*-questions and *wh*-questions, regardless of intonation, which can be either rising or falling. Compare:

#### KDO ve? Kdo VE? (=Ali kdo VE?)

#### (= Who KNOWS?) (=Does anybody KNOW?)

Notice also that in Slovene we often use the particles *in/pa*, which are a kind of pragmatic device, serving the speaker to sound polite. However, as soon as a particle is inserted, the tonicity difference between the two languages disappears, and it is usually replaced by a difference in tone. Thus while both in English and Slovene the intonation for the examples under 7 above is almost always falling, it changes to a rise in Slovene when a particle is inserted. Thus:

## \KDO bo pomagal? (less polite) = Kdo pa bo PO≁MAGAL? (more polite)

The first question can also have a rising intonation, but then it is a kind of "elicitation" question; it has the same tonicity and intonation in English in this case:

#### /KDO bo pomagal? = /WHO's going to help? (= Who did you say is going to help?)

Things are even more complicated than that, since the Slovene question can have falling intonation and the primary accent on the verb (just as the usual realization in English) but then it has a very specific meaning again, implying "surprise" in the sense of *How can you ask this?* The corresponding English intonation would probably be a fall-rise:

#### Kdo bo $PO \searrow MAGAL$ ? = Who's going to $\searrow \nearrow HELP$ ?

Finally, the second question can have falling intonation and the primary accent on the question word, with yet another implication:

 $\mathbf{V}$  KDO pa bo pomagal? = Who  $\mathbf{V}$  IS going to help?

8. interrogative pronoun/adverb <OBJECT/ADJUNCT> + auxiliary verb + personal pronoun <SUBJECT> + main verb

E: s+u+u+p 'what will you "do? 'why did he "leave? 'where have they "met?

S: p+u+u "kaj boš naredil? za"kaj je odšel? "kje sta se srečala?

All of my comments for 5 also apply here. The personal pronoun is of course usually left out in Slovene in this structure.

#### 9. interrogative pronoun/adverb <OBJECT/ADJUNCT> (+ auxiliary verb) + noun/personal pronoun <SUBJECT> + main verb

E: s+u+u+p 'what will you "do? 'why did he "leave? 'where did Peter "go? S: p+u+u "kaj boš naredil? za"kaj je odšel? "kam je šel Peter?

10. interrogative pronoun/adverb + BE + personal pronoun E: s+p+u 'how "are you? 'who"is it? S: p+u ka"ko si? "kdo je? The same difference as in other structures with interrogative words.

#### 11. verbs HOPE/THINK/SUPPOSE etc. + NOT

#### E: p+u "hope 'not S: u+p 'upam, da "ne

The structure is not quite the same in the two languages, because in Slovene we add the conjunction da (=that), but yet again the primary accent is on the negating word. Here, quite exceptionally, the primary accent in English is on an earlier item than in Slovene. We can see the same difference in the affirmative structure HOPE/THINK/SUPPOSE etc. + SO, although for SO we would often use an auxiliary verb in Slovene:

Have they finished? IHOPE so. / Upam, DA. Upam, da SO.

#### 4. POSITION OF THE NUCLEUS IN ENGLISH AND SLOVENE

The place of the nucleus in an intonation unit (a word group) is of course closely connected with the positions of the primary and secondary accent in grammatical phrases and syntactic structures discussed above, since any of these can be an independent intonation group. Thus, the syllable with a secondary accent will represent the beginning of the head of the word group, and the one with the primary accent will be the nucleus.

The preceding subsection therefore gives a great deal of information on the main issue of this Section, i.e. tonicity in the two languages contrasted. It is quite

obvious that, in very general terms, the nucleus in English usually falls on the last lexical word (i.e. noun, pronoun, adjective, adverb or verb) of the word group, while there are a number of instances in Slovene that require an earlier position of the nucleus. This is particularly common in two types of sentences, namely in negations and wh-questions.

#### 4.1. Wh-questions

4.1.1. Unmarked tonicity: nucleus on the last lexical word in English (all examples below are from O'Connor and Arnold (1973)) and on the question word in Slovene (except when a particle is used).

Examples:

Who's THAT?	KDO je to? Kdo pa je TO?
Why d'you ASK?	ZAKAJ vprašaš? Zakaj pa (me) SPRAŠUJEŠ?
What d'you MEAN?	KAKO to misliš?

An exception to this rule seems to be the interrogative word *zakaj* (=*why*), when the word group is relatively long; the tonicity is the same as in English, with or without the particle *pa*:

Well, why didn't you wait in the WAITING room? Zakaj (pa) nisi počakal v ČAKALNICI?

4.1.2. Marked tonicity (narrow focus on the verb): nucleus on the auxiliary verb in English and on the question word in Slovene. Examples:

Well then, why DID he cry off?ZAKAJ pa se je potem umaknil?Well, what ARE they doing?No, (in) KAJ delajo?

In some cases, however, when a particle is used in Slovene, the nucleus can be on the same element as in English, e.g.:

What IS there about Copenhagen (...)? Kaj pa JE takšnega v Kobenhavnu (...)?

In addition, in Slovene tonicity is sometimes contrastive in this case. Thus the English example below can be interpreted in two different ways with different meanings (as explained in parentheses)

Who WILL help then? KDO pa bo pomagal? (=If he doesn't, who WILL?) Kdo pa BO pomagal? (=He won't; is there anyone who WILL?)

4.1.3. Tonicity in wh-questions with the nucleus on *else*: the corresponding Slovene *še* can only be the nucleus in yes-no-questions, but not in wh-questions; the word order is different in the two languages:

Well, what ELSE have you had to do?	
Did they say anything ELSE?	

KAJ pa si še moral delati? So ŠE kaj rekli?

#### 4.2. Negations

The nucleus to the right of the negating word in English, on the negating word in Slovene:

I'm not so SURE about that.	NISEM tako prepričan.	
It's not very GOOD ().	NI preveč dober ().	
Not NECESSARILY.	NI nujno. (also: Ni NUJNO.)	
And you can't DO this ()	In tega ne MORETE narediti ()	
It isn't so BAD ()	NI tako slabo ()	
In Slovene, the nucleus is on the negating word also when it is on the subject in		
English:		
THAT's not difficult.	To NI težko.	
THAT can't have been easy.	To pa NI moglo biti lahko.	

(To pa najbrž NI bilo lahko.)

#### 4.3. Personal pronoun functioning as subject

Marked tonicity: nucleus on the pronoun in English, on the verb in Slovene:I saw it, (and quite enjoyed it).Jaz pa sem jo VIDEL (...)Don't THEY play?Ali oni ne IGRAJO?

# 4.4. Indefinite pronouns and adverbs ALL, EVERYTHING, NOBODY, NO ONE, NOTHING, ALWAYS, NEVER

The nucleus to the right of these words in English, on these words in Slovene:If everybody knew who'd gotČe ste VSI vedeli, kdo ima kaj (...)WHAT, (...)(A bad start) which nothing can (...) ki ga NIČ ne more popraviti.RETRIEVE.(...) we could never be QUITE sure (...) NIKOLI nismo mogli čisto of (...)But I've always FOUND it (...)A VEDNO se mi je zdel (...)It's always the SAME.VEDNO je tako.But they always HAVE been Saj so VEDNO bili ranljivi.vulnerable.

#### 4.5. Comparative and superlative

The nucleus to the right of *MORE*, *MOST*, on the words *BOLJ*, *NAJBOLJ*, *NADVSE* etc. in Slovene:

() that's most ATTRACTIVE.	() ki je NADVSE privlačna.
What, more than USUAL?	(Kako?) BOLJ kot ponavadi?

#### 4.6. The combination SERIOUSLY, REALLY + VERB

The nucleus on the verb in English, on the preceding adverb in Slovene:D'you seriously THINK (...)Ali RES misliš (...)You mean that really HAPPENS?Da se to RES dogaja?Does it really MEAN (...)Ali to RES pomeni (...)

#### 4.7. A noun phrase consisting of adjective + noun

when the noun in the function of subject complement refers to the noun or pronoun functioning as the subject of the sentence: the nucleus is on the nominal part of the phrase in English and on the preceding adjective in Slovene. I actually found a single example of this important difference in the dialogues that I analyzed. The example seems to show that in Slovene we tend to follow more consistently a well-known discourse principle according to which <u>new information is foregrounded</u> and old information backgrounded. In terms of tonicity this means that the accented words will regularly be those that contribute something new to the oral interaction, while those that make part of some shared or assumed knowledge are more likely to be unaccented.

In this particular case, English does not seem to follow this principle, since the information conveyed by the noun in the complement adds little or nothing to the information expressed by the subject. Thus in the example below both speakers of course know that *Copenhagen* is a *city*, but the word *city*, which could easily be left out if we paraphrased the sentence a little, is nevertheless the nucleus of the word group. Thus:

Is Copenhagen a gay CITY, would you say? Je Köbenhaven po tvojem VESELO mesto? It is not difficult to think up some more examples of this kind: He's a bright BOY. On je PAMETEN fant. China is a huge COUNTRY. Kitajska je OGROMNA država. That's an interesting BOOK. To je pa ZANIMIVA knjiga.

Notice that we could easily leave out for example the word *country*, and just say *China is HUGE*. It seems, however, that in English the tendency of placing the nucleus on the last content (lexical) item is stronger than the mentioned discourse principle. Once more, therefore, the nucleus in English is to the right of its position in Slovene.

In conclusion, however, it might be worth mentioning some specific types of sentence with unmarked (or neutral) tonicity which defy the last-lexical-item rule even in English, and to compare them (if possible) with Slovene equivalents. According to Cruttenden (1986), these exceptional cases are the following:

- 1. Event (or presentation) sentences, e.g. A CRIMINAL's escaped.
- 2. Sentences with final time adverbials, e.g. I went to LONDON last week.
- 3. Adjectival wh-objects, e.g.: What SEEDS did you use?

For the first case it is clear that the tonicity is the same in Slovene, e.g.:

## The CHIMNEY's falling down!DIMNIK pada!A CRIMINAL's escaped.Neki ZLOČINEC je ušel.

In addition to this, Slovene has this position of the nucleus even if the nominal phrase is not the subject but the object of the sentence (which is possible in Slovene due to its word-order flexibility): V glavo mu je vrgel KOZAREC  $\rightarrow$  KOZAREC mu je vrgel v glavo.

The case of final adverbials is again the same in the two languages, although it may be more common in Slovene to have some of these adverbials in initial position:

#### We had CHICKEN for dinner. PIŠČANCA smo imeli za večerjo.

In both languages, final nucleus is of course possible, but notice that this would no longer be neutral tonicity (the so-called broad focus) but marked tonicity (narrow focus):

## We had chicken for DINNER (not for LUNCH). Piščanca smo imeli za VEČERJO (ne za KOSILO).

Finally, in the case of adjectival wh-objects, also in Slovene the verb that follows the object (when it is expected in the context of interaction) is often unaccented, thus: *What SEEDS did you use? In kakšna SEMENA ste uporabili?* 

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### POLOŽAJ NUKLEUSA U INTONACIJSKOJ CJELINI U ENGLESKOM I SLOVENSKOM

#### Sažetak

U ovom se radu uspoređuje toničnost, odnosno položaj jezgre (naglašenog sloga) u intonacijskoj jedinici (IP, fonetski blok) u engleskom i slovenskom. Nakon kratkog objašnjenja različitih stupnjeva naglašavanja, temeljenog na opisu naglašavanja O'Connora i Arnolda (1973) te Cruttendena (1986), u radu se uspoređuju naglašavanja u neglagolskim i glagolskim strukturama u engleskom i slovenskom. Ova usporedba ukazala je na glavnu razliku u položaju primarnog naglaska i toničnosti u dva jezika. Glavni rezultati potvrđeni su i razrađeni usporedbom toničnosti u dijalozima u radovima O'Connora i Arnolda (1973) te Wellsa (2006). Glavne razlike između dva jezika pronađene su u pitanjima s upitnom riječi (jezgra na upitnoj riječi u slovenskom, ali ne u engleskom) i u negativnim rečenicama (jezgra na negaciji u slovenskom, ali ne u engleskom).

Ključne riječi: jezgra rečenice, intonacija rečenice, slovenski jezik, engleski jezik, kontrastivna analiza