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Puskas, Genoveva

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Double Negation and Information Structure: somewhere between topic and focus*

Genoveva Puskás

1. Introduction

Although Double Negation is usually considered a marginal phenomenon, it is present in a large array of languages. However, the apparent realization, that is the syntactic process involved in double negation, varies from one language to the next. I would like to argue that despite the surface differences we observe, double negation involves some common property, namely the relation between the value of the (double) negation and the informational organization of the sentence. The syntactic processes then simply realize various ways languages use to encode precisely these informational instructions. It turns out that double negation (henceforth DN) raises important questions with respect to the semantic, syntactic and phonological properties of negation, as well as to how these properties function with respect to informational notions such as “given” and “new”.

Double negation appears both in Negative Concord and in non-Negative Concord languages.¹ In standard English, a non-Negative Concord language, example (1a), which contains a Negative Polarity Item (*anybody*), encodes one negation for the sentence; (1b), on the other hand, is interpreted as contributing more than one negative force, resulting in some sort of “cancelling” of the negation.

- (1) a. *John didn't see anybody.*
- b. *John didn't see nobody.*

The DN interpretation obtains when the sentence contains *both* a sentential negation marker *n't* and a negative quantifier *nobody*.

This contrasts sharply with French. French is a Negative Concord language, which means that individual negative quantifiers do not contribute their own negative force. Rather, they combine to construct one negative

meaning, as illustrated in (2a). Nevertheless, double negation is also possible (2b):

- (2) a. *Jean n'a parlé de rien (à personne).*
 John NE has talked about nothing (to nobody)
 'John didn't talk about anything (to anybody).'
- b. *Jean n'a pas parlé de rien à personne*
 John NE has not talked about nothing to nobody
 'John didn't talk about nothing to nobody.' (DN)

French does not exhibit the alternation found in English between Negative Polarity Item (such as *anybody*) on the one hand and negative quantifier (such as *nobody*) on the other hand. In other words, *personne* ('anybody/nobody') and *rien* ('anything/nothing') are licensed both in the (a) and the (b) example. The difference is that the DN version in (2b) contains an additional negative marker *pas*, which triggers the 'anti-Negative Concord' reading.

Hungarian, a Negative Concord language like French, exemplifies yet another strategy for DN. In this language, the DN versus Negative Concord alternation is not linked to any lexical alternation. The sentential negation marker *nem* appears in both cases, and the negative quantifiers seem to be licensed in the same environments. However, it appears that DN arises in special contexts, related to a difference in the intonational contour. Example (3a) illustrates a case of Negative Concord, while (3b) is an example of DN:

- (3) a. *János 'senkinek nem mutatott be 'senkit*
 J.-NOM nobody-DAT NEG introduced-3S part nobody-ACC
 'John didn't introduce anybody to anybody'
- b. *János 'senkinek nem mutatott be √senkit*
 J.-NOM nobody-DAT NEG introduced-3S part nobody-ACC
 'John introduced nobody to nobody' (DN)

In (3a), the two negative quantifiers bear an emphatic stress (as indicated by the diacritic ').² They amalgamate to form one negation with the negative marker *nem* at the sentential level. Sentence (3b) differs from (3a) in that the second negative quantifier, *senkit* ('nobody-acc'), appears without the stress. Rather, it is pronounced with a slight fall-rise type of intonation,

signalled here with the diacritic \surd . The reading is also different: one could paraphrase (3b) as ‘there is no person to whom John didn’t introduce anybody’.

Despite the fact that the three languages described here have different negative strategies, it is striking that they all have DN. Moreover, it is also remarkable that the intonational pattern which is associated with the DN interpretation seems to be identical, and that the conditions on interpretation (such as context) and the interpretation itself are also identical in these languages. In this paper, I want to investigate what these intonational patterns correspond to and why they seem to correlate with the interpretation DN consistently leads to. I propose that negative quantifiers contribute a Double Negation reading if they are contrastive topics. I show that the formal approach to contrastive topics can be applied to DN, and I give an implementation of the analysis in Hungarian.

The paper is organized as follows: section 2 discusses the semantic properties of Double Negation and section 3 its phonological properties. Section 4 gives a detailed analysis of the properties of Hungarian Double Negation. Section 5 presents some recent analyses of Contrastive Topic: 5.1 discusses Molnár (1998), section 5.2 presents Büring’s (1999) approach and section 5.3 gives a summary of Gyuris’ (2002) analysis of Hungarian Contrastive Topic. In section 6, I show how the contrastive topic approach matches the properties of double negation that have been described in section 4, coming to the conclusion that double negation indeed involves Contrastive Topics in Hungarian. Section 7 gives a summary and concluding remarks.

2. Semantic properties of Double Negation

2.1. Weakening

Approaching negation from a purely semantic point of view, one might wonder why Double Negation should ever exist. Indeed, under the standard view that negation involves an operator which operates on the truth value of the proposition, double negation seems redundant. For a sentence such as (4a), the logical form of the corresponding negative sentence (i.e. *John does not like linguistics*) will be (4b):

- (4) a. *John likes linguistics*
 b. \neg LIKE (john, linguistics)

“Double negation”, with a standard logical form as in (5), will logically invert the polarity of the sentence, cancelling the original negation, and reverting it to the meaning of (4a):

- (5) $\neg (\neg \text{LIKE (john, linguistics)})$

However, as was already observed in Jespersen (1924), the two negative elements which occur in DN do not exactly cancel one another. If it were the case, the combination would end up being identical with the non-negated version of the phrase or sentence. But, as Jespersen suggests, “the longer expression is always weaker; [it] ...implies a hesitation which is absent from the blunt, outspoken [expression]” (1924:332). Jespersen thus characterizes DN as a means of weakening the import of an utterance.

This suggestion is adopted and extended in Horn (1991). Horn observes that among opposites, some are mutually exhaustive and mutually inconsistent (the so-called binary opposites such as *odd/even*, *male/female*). But, contrary to logical predictions, the negation of contradictory opposites does not produce total redundancies, so that ‘not odd’ is somehow different from the blunt ‘even’. There is in fact no true double contradictory negation in this system. The properties that Horn clusters as typical properties of DN are given in (6) below:

- (6) Properties:
 (i) loophole
 (ii) concession
 (iii) strengthening

Property (6i) is based on the observation that resorting to DN is motivated by the desire to leave one's self a loophole, in order to get out of a difficult situation. Consider the following example:

- (7) *Finishing this paper for tomorrow is not impossible*

In a context where the deadline for the paper is under discussion, uttering (7) rather than the corresponding positive sentence ('finishing this paper for tomorrow is possible') is somehow less of an assertion as to the actual possibility of finishing the paper, and hence less of a commitment to finish the paper.

Property (6ii) expresses the idea that DN may be appropriate in situations where the utterance asserts a situation which is contrary to what might have been expected. This can be illustrated in example (8) below. In a context which contains assumption about students (not) liking linguistics in various departments, it is felicitous to utter (8) in order to convey the idea that the speaker's department does not follow the rule:³

(8) *None of our students doesn't like linguistics*

Both (6i) and (6ii) involve a move on the speaker's behalf which we could describe as "stepping back". By "stepping back", I mean using DN to convey a meaning that is not the literal meaning in the logico-semantic sense, but which is intended to be understood as expressing a milder, less committing and definitive version of the statement. In that sense, properties (6i) and (6ii) may be comparable to Jespersen's weakening.

Paradoxically, Horn also observes that in some cases *not unX* might end up being stronger than *X* (6iii). Horn further notes, citing Geach (1970), that DN as expressed by (not (not (P))) "looks like an added piece of meaning" and so might be thought to involve a different sense from that of the basic element. Therefore, there can be no true synonymy (identity of meaning) between $\neg(\neg\alpha)$ and α , since the former, with its more complex logical form, must have a correspondingly more complex meaning. Horn agrees that the two logical forms of these expressions "are intensionally and propositionally equivalent, denoting the same function from possible worlds to extensions (i.e. truth values in the case of propositions), but they are not fully synonymous" (1991:100).⁴ From this perspective though, strengthening is not incompatible with Jespersen's weakening: the more complex meaning does not necessarily have to be equated with a stronger assertion.

The weakened meaning, or "stepping back" that various authors have described obviously correspond to "speaker meaning". This strongly suggests that the DN interpretation of a sentence is tied to implicatures, and that the implicatures are precisely triggered by the element which contributes the DN reading. If we adopt the idea put forth in Sperber and Wilson

(1986) that the implicatures a hearer draws from an utterance with a presumption of Relevance may be weak but numerous, we can derive both the notion of “weakening” and that of “more complex meaning”, since the various inferences may be seen as corresponding to these added pieces of meaning.

2.2. Dependency

In order to have a complete picture of the semantics of DN, let us also consider Ladusaw’s (1996) analysis of negation. Ladusaw argues that negation is a mode of predication, where the negative interpretation of a sentence such as (9) below consists of the denial of the existence of an event of ‘someone talking to John’. The negative interpretation can be expressed through the fact that *nobody*, the subject, is able to license a negative mode of predication

- (9) *Nobody talked to John.*

Double Negation is interpreted as several instances of independent negations. Ladusaw proposes that it generates different negative expressors, each one of which corresponds to a mode of predication. This is verified in the case of negation with modals. Each instance of negation corresponds to a separate instance of predication. The first clause of the sentence in (10a) expresses DN. Its interpretation is given as a paraphrase in (10b):

- (10) a. *He can't not attend the meeting, so I guess he'll have to go.*
 b. *It is not possible that he not attend the meeting.*
 [W.Ladusaw, p.c.]

To the sentence (10a) correspond two ‘propositional objects’ in the interpretation, as is clear from (10b). Ladusaw further proposes that the same can be argued for cases of DN in standard English as in (11):

- (11) *John didn't talk to nobody.*

If we adopt the same line of reasoning, we conclude that the interpretation of (11) involves two negative modes of predication. The fact that there is

no modal renders the interpretation less transparent with respect to the syntactic structure itself. Ladusaw (p.c.) proposes that the *didn't* might express the top level predication of the clause; the interpretation of *nobody* as negative will then come from deriving a VP with an additional predication in it.

What emerges from this analysis is that DN readings appear as constructed on top of a primary negative mode of predication: they are licensed only as a phenomenon dependent on sentential negation.

3. Phonological properties of Double Negation

The second point I would like to examine is the intonational pattern associated with Double Negation. We have observed above that in Hungarian, the Double Negation reading differs minimally from the Negative Concord reading in terms of intonation. Whereas Negative Concord obtains when the negative quantifiers all bear some H*L intonation, DN arises when one of the negative quantifiers comes with a L*H. (see (3a,b) above).

Similarly, it has been noted in Zanuttini (1991) that Italian negative quantifiers can combine to yield a DN reading, but under given conditions:

- (12) *proprio niente, non ho detto.*
 absolutely nothing, not I have said
 'I haven't said nothing.'

Zanuttini notes that “when (a) a primary stress is on *niente* and secondary stress on the finite verb *ho*, (b) a pause separates the two, and (c) *niente* has a rise and a fall on it, then the reading is that of a double negation” (1991:130). The exact kind of intonation pattern is not entirely clear (see below), but it has to be contrasted with the Negative Concord reading in which there is “only a fall on *niente*” (1991:130)

In addition, it seems that the DN reading, with the characteristic intonational pattern, is possible post-verbally as well. However, the sentence must contain a focus, possibly on the finite auxiliary or verb:

- (13) *Non 'ho detto √niente*
 neg have-I said nothing
 'I haven't said nothing.'
 [A. Cardinaletti p.c.]

4. The characteristics of DN in Hungarian

Bearing in mind the general properties of DN, we will now examine in detail DN in Hungarian. We will come to the conclusion that the various properties which we observe lead us to an analysis of DN as an instance of Contrastive Topic.

Recall that DN constructions in Hungarian and in Italian are signalled by the typical L*H intonation on the negative quantifier which has the DN reading. However, it appears that the L*H intonation cannot appear independently in a sentence. It is somehow contingent on the presence of a H*L, usually associated with Focus (see (13) above). This presupposes that DN sentences are also Focus sentences. The presence of a Focus in (simple) negative sentences is not generally recognized in the literature. However, Puskás (2000) argues that negative sentences with a preverbal negative quantifier are necessarily Focus sentences (see also e.g. Olsvay 2000). This can be shown by the distribution of negative quantifiers. Indeed, as shown in (16) below, they cannot occur in the preverbal position along with another focused constituent:⁵

- (14) a. *'Senkit 'János nem látott.
 Nobody-ACC John-NOM NEG saw-3s
 b. *'János 'senkit nem látott.
 John-NOM nobody-ACC NEG saw-3s

That the preverbal negative quantifier is focused is further confirmed by the examples in (15-16) below. It is well-known that a focused constituent can function as a complete answer to a wh-question. This is illustrated in (15) below:

- (15) a. *Kivel beszélt Mari?*
 Who-instr spoke-3s Mary-nom
 'With whom did Mary speak?'
 b. *'Jánossal [beszélt Mari]*
 János-INSTR spoke-3s Mari-NOM
 '[Mary spoke] with 'John'.'
 c. # *Mari beszélt Jánossal.*

Sentence (15b), in which the constituent *Jánossal* ('with John') which provides the answer to the wh-question sits in the Focus position, is appro-

priate as an answer to (15a). Sentence (15c) is not. Similarly, in a negative answer, the occurrence of the negative quantifier in preverbal position is felicitous:

- (16) *'Senkivel [nem beszélt Mari]*
 nobody-INSTR NEG spoke-3s Mary-NOM
 'Mary didn't speak with 'anyone.'

I will therefore assume that the negative quantifier occurs in the syntactic Focus position itself.⁶

Hungarian can stack negative quantifiers in the left periphery, in a focus/quantifier related position (but see note 2). When both quantifiers bear stress, they enter into Negative Concord (17a). But a DN reading is also available, provided that the first negative quantifier is pronounced with a fall-rise (17b):

- (17) a. *János 'semmit 'senkinek nem mondott*
 John-NOM nothing-ACC nobody-DAT NEG said-3S
 'John didn't say ANYTHING to ANYBODY.'
 b. *János √semmit 'senkinek nem mondott*
 John-NOM nothing-ACC nobody-DAT NEG said-3S
 'John said nothing to nobody.'

In (17b), *János* occupies the Topic position, functioning thus as “given information”. It is uttered with a flat intonation. The negative quantifier *senkinek* (‘to nobody’) appears to the immediate left of the negative marker *nem*, in the Focus position. Crucially, the DN reading obtains if another negative quantifier occurs in the Focus position. If the Focus position hosts a non-negative element, as in (18), the DN reading does not obtain:

- (18) *Semelyik könyv 'csak Marinak nem tetszett*
 no book-NOM only Mari-DAT NEG pleased
 'It is only Mary that no book pleased.'

Let us now examine DN sentences from the interpretive point of view. Consider the following example:

- (19) *√Semmiről 'senkivel nem beszélt*
 nothing-DELAT nobody-INSTR NEG spoke-3s

‘He/she didn’t speak about nothing with no one.’

The sentence in (19) exhibits the complex type of meaning discussed in section 2.2 above. The quantifier *senkivel* (‘with nobody’) sits in the Focus position and combines with the negative marker *nem* to yield a negative predication of the type:

- (20) *'senkivel* *nem beszélt*
 nobody-INSTR NEG spoke-3s ‘
 ‘he didn’t speak to anybody’.

Following the analyses of Olsvay (2000), Puskás (2000), I will assume that negative quantifiers in the Focus position are universal quantifiers in Hungarian. Therefore, the logical representation of (20) will be:

- (21) $\forall x (\neg \text{SPOKE he, } x)$
 for each individual x, it is not the case that he spoke to x

The addition of the DN negative quantifier *semmiről* (‘about nothing’) does not simply cancel the negativity of the previous predication. In other words, (19) as a whole does not simply mean that he spoke with everybody about everything. Rather, it adds another level of meaning to the previous predication. Let us decompose this additional meaning into specific properties. First, to the extent that the negative quantifier *semmiről* (‘about nothing’) is a universal quantifier, it denotes a set rather than an individual. In the reading we have here, it seems that this set can only come as contrasting with other possible sets of things that can/could have been talked about, such as e.g. *John, the weather, or the last five years' soccer championships*. However, the contrast is not explicit. In other words, the possibility of having other topics of conversation is part of the background information: it is given in the context, but not necessarily explicitly. Only the specific choice of this possibility from the set of conversation topics, i.e. *about nothing*, is new.

The second property is the fact that this negative quantifier, in addition to the contrastive kind of contribution, also adds an independent negative meaning. We keep the primary negative predication which denies that he spoke to anybody. But in addition, the DN negative quantifier adds its own negative content, in the sense that *semmiről* (‘about nothing’) denotes the set of things that have not been talked about. As it was already mentioned

above, this negative quantifier does not enter in Negative Concord with the other quantifier(s). So it somehow comes with its own negative content. From this point of view, it indeed corresponds to a second negative mode of predication, as proposed by Ladusaw (see section 2.3). Moreover, because it crucially depends on the first one, both from the negative contribution side and from the contrast side, it exhibits the kind of dependency that has been discussed above. DN quantifiers thus contribute a dependent and implicit contrastive negative meaning to the sentence.

Another interesting feature of a DN quantifier is the scope properties it exhibits. Hungarian is well-known for the fact that the scope relations are overtly linear (see E.-Kiss 1987, 1994; Szabolcsi 1981, 1997; Kenesei 1986 among others). Quantifiers may appear in the preverbal domain and post-verbal domains, and they normally observe linear scope interactions:

- (22) a. *Minden lány táncolt minden fiúval.*
 every girl-NOM danced-3s every boy-INSTR
 'Every girl danced with every boy.'
 =for each girl, it is the case that she danced with every boy
- b. *Minden fiúval táncolt minden lány.*
 every boy-INSTR danced-3s every girl-NOM
 For every boy it is the case that every girl danced with him
- c. *Minden lány minden fiúval táncolt.*
 for every girl and every boy, it is the case that she danced with him

In (22a) the quantified DP *minden fiú* ('every boy') appears in the preverbal domain and scopes over the quantified DP *minden lánnyal* ('with every girl'). In (22b), it is the DP *minden lánnyal* which occupies the highest position, and the scope order is reversed. In (22c), both quantifiers appear in the preverbal domain, and they scope over each other. Similarly, negative quantifiers which enter into Negative Concord observe the scopal relationships which corresponds to their surface ordering:

- (23) a. *Semelyik lány nem táncolt semelyik fiúval.*
 no girl-NOM NEG danced-3s no boy-INSTR
 'None of the girls danced with none of the boys'
 no girl is such that she danced with no boy
- b. *Semelyik fiúval nem táncolt semelyik lány.*
 no boy-INSTR NEG danced-3s no girl-NOM

- c. no boy is such that no girl danced with him
Semelyik fiúval semelyik lány nem táncolt.
 no boy and no girl are such that she danced with him

When the relevant negative quantifier occurs with the L*H intonation, the scopal properties described above are lost: the DN negative quantifier has narrow scope with respect to the other quantifier:

- (24) \checkmark *Semelyik fiúval* ‘*semelyik lány nem táncolt.*
 no girl is such that she did not dance with any boy
 *For no girl and no boy it is the case that she didn’t dance with him

Summarizing the previous observations, we can now state that DN interpretations appear when a negative quantifier:

- is pronounced with a L*H intonation, either post-verbally or preverbally
- occurs in a sentence which contains a Focus, where the Focus is a negative quantifier
- is interpreted as dependent on the primary negative mode of predication
- adds a second level of meaning
- has narrow scope with respect to the quantifier in the Focus position

I have mentioned above that DN seems to introduce some notion of “aboutness”, in the sense that it introduces some element extracted from the background. This may suggest that it is interpreted as a Topic. However, the notion of topic is usually related to some non-distinct “aboutness”. It does not presuppose a set of elements from which one draws the subset which corresponds to the DN quantifier. Moreover, I have also suggested that the subset selected as the DN quantifier enters in some contrast with the other possible subsets of the set. Therefore, DN quantifiers cannot be interpreted as Topics. They are not interpreted as Focus either, since they do not necessarily introduce new information. What is new is the choice of the relevant subset from the given set.

These interpretive properties, along with the intonational properties of DN negative quantifiers suggest that we are dealing with Contrastive Topics. In the following section, I will examine the phonological and interpretive features of Contrastive Topics, and I will come to the conclusion that DN negative quantifiers are indeed instances of Contrastive Topics.

5. Contrastive Topic, Intonation and Semantics

Recent literature has given much attention to contrastive topics (henceforth CT). In this section, I will review only three of the studies, bearing in mind that they build on a rich preceding literature. These studies will enable us to identify the main characteristics of CT, and will eventually help us reach the conclusion that indeed, DN constructions involve a negative quantifier which must be interpreted as a CT.

5.1. Molnár (1998)

Molnár (1998) extensively discusses the relation between CT, Focus and Topic. She argues that Contrastive Topic lies at the intersection between Topic and Focus. More precisely, CT represents a particular type of correlation between Topic and Focus.

Molnár observes that the focus accent never requires a co-occurring accent; the topic accent, on the other hand, necessarily co-occurs with a focus accent (see Lambrecht 1994). In the case of topic constructions, the first prenuclear accent has a rising or fall-rise (L^*H) contour, the nuclear accent (focus) predominantly a falling (H^*L) contour. This seems to identify straightforwardly CT. However, Molnár makes a distinction between different types of elements which bear the intonational contour (the I-contour) associated with the pre-nuclear accent. She claims that the I-contour has “a general bridge-creating function by indicating iconic connectedness, either between different parts of the clause, or between different clauses” (1998:114).

I-contrast is a contrastive reading of I-contour in that it represents a relevant subset of cases of I-contour. Molnár proposes that Contrastive Topics bear this I-contrast intonation, but are, in fact, themselves a subset of the I-contrast marked elements. The delimitation of the subset is obviously related to the notion of “topicality”.

As discussed above, the intonational contour identified in CT is not specific to CT constructions. Molnár argues that since the means to identify CT and isolate it from other I-contour bearing constituents is not a matter of intonation (as opposed to e.g. Focus), the relevant distinction is a semantic one. Molnár follows Szabolcsi (1981), who describes CT as a special kind of contrast which has the property of transforming the sentence into an “implicit modal assertion”. It comes with the implication of

other, possible, alternates in the universe of discourse. Molnár also notes that the first pitch accent expresses incompleteness, uncertainty or dependence. However, the purely semantic implications of I-contrast are limited to inversion of scope (narrow scope readings). So contrastive topic must show the combined effects of “topicality” (referring to aboutness) and the implications of I-contrast, (possible scope inversion) as a possible reading of I-contour.

Molnár argues that CT sits at the intersection between Topic and Focus. Therefore the focus component must also be accounted for. Focus in general expresses “some type of ‘new’ relation to alternatives” (Molnár :130). But there are different kinds of Foci. One Focus operator has been associated with the notion of “exclusion by identification” (see Kenesei 1986). A constituent associated with this operator gets an interpretation where the relevant constituent is identified as one member of a set of which all other members are excluded.

Molnár, following Kenesei’s analysis of contrastive topics, assumes that CT is also an exclusive focus type. However, Molnár claims that the L*H accent causes a weakening of the exclusion. The identification property of CT will signal not that all the other members of the set are excluded, but “that there is at least one member for which the predication ...does not hold”(Molnár 1998:132). The Hungarian examples in (25) below illustrate the two notions:

- (25) a. *[PETER]_F jár Lundban egyetemre*
 Peter is going Lund-in university-to
 ‘It is Peter who is studying in Lund.’
 b. *[PETER]_{CT} [LUNDBAN jár egyetemre]_F*
 Peter Lund-in is going university-to
 ‘Peter is studying in Lund (but somebody else is not)
 [Molnár 1998:133]

The focus in (25a) entails that all other members of the set of alternatives are excluded, that it, nobody else is studying in Lund. The CT in (25b) entails that at least one member of the set is excluded, or, in other words, there is at least one person other than Peter who is not studying in Lund. Molnár also proposes that the “focussing of a topic is a ‘second instance’

of focussing in the clause” (1998:139). This correlates with the observation that that a (C)-Topic always presumes a nuclear Focus.

The question is then what CT has in common with Topic? Molnár claims that CT cannot be explained in terms of “given” (as opposed to “new” for a Focus).⁷ Rather, she views the topic-like component of CT as related to the notion of aboutness, in that “the topic refers to the constituent of an utterance which the main information is ‘predicated’ on...where both parts of the predication refer not to parts in a syntactic hierarchy but to the organization of the sentence within discourse”(Molnár 1998: 105).

5.2. Büring (1999)

Büring (1999) builds on the B-accent described in Jackendoff (1972) and its various characteristics. Although the study uses an elaborate model of D(iscourse)-Trees, I will not enter into the discussion of the model, and will only retain here the points of the analysis which specifically apply to contrastive topics.⁸ Büring’s core proposal is that Contrastive Topic marking, namely the presence of a L*H (a B-accent, following Jackendoff’s terminology), serves to indicate the presence of a *strategy*. By strategy, Büring means that the discourse comes with a question, which is not answered directly, in one step. Rather it may be divided into sub-questions, which appear as alternative questions. The CT constituent then functions as an answer to one of the subquestions, but the alternatives are somehow accessible. Formally, Büring defines strategy as being a subtree of a D-Tree which is rooted in an interrogative move:

(26) C[ontrastive]T[opic]-Condition

A contrastive topic CT in a move m within a d-tree D indicates a strategy in D.

[Büring 1999:6]

In other words, the presence of a CT indicates that there is a set of (implicit) sub-questions of the same form as the one which triggers the sentence containing the CT as an answer. In the example below, from Büring (1999) the index CT indicates a contrastive topic with a L*H intonation and F indicates a focus with a H*L contour:

(27) *FRED*_{CT} ate the BEANS_F

A somewhat simplified version of the derivation of the set of questions will be:

- (28) a. *what did Fred eat* (replace the focus by a *wh*-word)
 b. *what did Fred eat?*
 what did Mary eat?
 what did ...eat? (form a set of questions by replacing the contrastive topic by some alternative to it)

So, contrastive topic marking indicates the presence of a strategy of a somewhat more complex type than e.g. a simple Focus. Büring claims that sentences with a contrastive topic have some “additional discourse-related meaning” (Büring 1999:9). A CT signals “that the sequence is part of a larger discourse which – since it is not given in the actual example – the competent speaker can only guess at, using the information provided by the location of CT and focus in the sentence” (Büring 1999:10).

The crucial trigger is the availability of sub-questions. If a sub-question is explicit, CT marking is optional. On the other hand, CT-marking is obligatory with implicit sub-questions, since it precisely signals that there are sub-questions to be taken into account.

Büring claims that *givenness*, the term which has been associated with Topic, is not relevant to CT. He argues that givenness (in the sense of “previously mentioned”) only sees explicit moves, those for which there is a salient antecedent. Implicit moves such as the one expressed by a strategy are irrelevant for givenness. If the element aimed by the CT-marking only occurs in an implicit marking, the marking cannot be omitted. Implicitness does not count as givenness. Therefore, we cannot associate CTs with the notion of Topic which relies on givenness.

5.3. Gyuris (2002)

Gyuris gives a list of characteristics of CT in Hungarian, as discussed in the literature. CTs surface in the left periphery, receive a rising intonation, bear an eradicating stress and introduce a contrast between the denotation of the CT and other elements of the same type.⁹ Gyuris proposes a certain number of tests to identify CT in Hungarian. In addition to the characteristic L*H intonation usually associated with CT, it is generally possible to

insert a co-referential pronoun or certain particles (such as *az* ‘that’, *ott* ‘there’, *bezzeg* ‘as opposed to others’, *azért*, *pedig*, *bizyon*, *aztán*, *ugyan* ‘however’) after the CT (examples from Gyuris 2002):

- (29) a. [CT *Máriát*] *azt* ‘*meglátogattam*.
 Mary-ACC that-ACC pref-visited
 ‘Mary, I HAVE visited’.
- b. [CT *Legalább két könyvet*] *azért* ‘*minden*
 at least two book-ACC however every
diák *elolvasott*.
 student-ACC pref-read
 ‘Every student has read at least two books, however’

Gyuris also discusses another property of CT, namely the well-know fact (identified in Szabolcsi 1981), that a quantificational expression in the CT position has narrow scope with respect to other preverbal operators, such as negation or quantifiers in the left periphery. This is illustrated in (30) below:

- (30) a. [CT *Mindenki*] ‘*nem* *jött* *meg*.
 everybody not came prefix
 ‘It is not the case that EVERYBODY arrived’.
- b. [CT *Minden könyvet*] [F ‘*két diák*] *olvasott el*.
 Every book-acc two student read pref
 ‘Two students are such that they read all books’
 #Every book is such that it was read by two students

The inverse scope property, Gyuris argues, can be accounted for by the analysis she offers for Contrastive Topics. To some extent, CTs function like Topics. Indeed, in Hungarian, they both appear in the same preverbal field. However, straightforwardly assimilating CT to Topic is misleading. As discussed in Maleczki (2003), when a constituent occupies the Topic position, the sentence expresses a proposition which predicates a property about an individual. In these cases, the referent of the logical subject, that is of the constituent in the topic position, has to be identified independently of the statement. But CT does not satisfy the requirement that its referent be independently identifiable. Gyuris argues that Contrastive Topics are referentially dependent. Thus, in example (30b) above, *minden könyvet*

(‘every book-acc’) does not refer to the totality of books available in the context, but to the totality of books associated with an individual.

In order to solve the apparent contradiction between the topic-like behaviour and the non-topic-like interpretation of Contrastive Topic, Gyuris argues, following E.-Kiss (2000) that a CT constituent denotes a property or set (as opposed to an individual) and the sentence in which it appears then predicates something about this property. This is exemplified in (31) below:

- (31) \surd *Kevés könyvet* *Mari olvasott el.*
 few book-acc Mari read perf
 ‘It was Mari who read few books’

The interpretation of (31) will be “that Mary is the person of whom the property of having read few books holds” (Gyuris 2002:90).

Gyuris also claims that the function of CT is to introduce the implicature that there is at least one alternative available. In factual sentences, the presence of a CT gives rise to the implicature that there must be at least one alternative event type, which is compatible with the meaning of the sentence.

The analyses presented here converge on a number of points. Mainly, it appears that Contrastive Topics relate to focus and, to some lesser extent, to topic. The characteristic intonational pattern is associated with the notion of implicit set of alternatives, and induces some weak exclusion of the possible alternatives introduced. Gyuris’ contribution crucially builds on the proposal that CT denotes a property, as opposed to Topics, which denote an individual. This accounts for the impossibility of having an independent interpretation of CT constituents.

I claim that most of the characteristics identified for CT correlate with the properties we have observed with respect to double negation. In the next section, I propose that Double Negation is an instance of Contrastive Topic, and I show how the analyses above can be implemented for DN in Hungarian.

6. Hungarian DN as an instance of Contrastive Topic

All authors agree on the fact that one salient feature of CT is its identifiable intonational contour (although Molnár 1998 argues that not all I-

contours yield a CT interpretation. This distinction leads Molnár (p.c.) to propose that DN is an instance of I-contour rather than of CT proper). As has been discussed in section 3, the DN reading obtains when the relevant negative quantifier is uttered with a L*H intonation. This intonational pattern is associated with a left-peripheral position.

Gyuris mentions that CT can also be identified by means of a pronoun or a particle which is inserted between the topicalised constituent and the rest of the clause. It turns out that negative quantifiers which contribute a DN readily accept the insertion of a contrastive particle:

- (32) *√Semmiről bizony 'senkivel nem beszélt*
 nothing-DELAT however nobody-INSTR NEG spoke
 'About nothing, however, he talked to nobody'.

Another formal property of CT, which is mentioned in Molnár (1998) and Gyuris (2002), is the ability to yield inverse scope. As pointed out in section 4 above, a negative quantifier in the left peripheral position which bears the characteristic L*H intonation is interpreted within the scope of other preverbal quantifiers:

- (33) *√semelyik film 'senkinek nem tetszett.*
 no film-NOM nobody-DAT NEG pleased
 'Nobody liked √no film'
 = no person was such that he liked no film
 # no film was such that nobody liked it.

However, the inverse scope may not be a determinant factor *per se*, since Gyuris notes that the inverse scope readings may vary, depending on their availability. We shall see below that CT readings may in general be subject to interpretational availabilities

From the interpretive point of view, the DN-contributing negative quantifier also appears to correspond to the CT described in the literature. Recall that Büring (1999) builds his analysis of CT on the argument that the presence of a CT constituent indicates that there is a set of (implicit) sub-questions of the same form as the one which triggers the sentence containing the CT as an answer. These implicit sub-questions are alternative sub-questions the answers to which provide implicit alternatives to the actual CT.

Let us proceed following Buring's method. Consider the sentence in (34):¹⁰

- (34) *János* $\sqrt{\text{semmit}}$ '*senkinek* *nem mondott*.
 John-NOM nobody-DAT nothing-ACC NEG said-3s
 'There is 'nobody to whom John said $\sqrt{\text{nothing}}$.'

We now construct the main question, replacing the focused constituent with a wh-word:

- (35) *János* *kinek* *nem mondott* *semmit?*
 John-NOM who-DAT NEG said-3s nothing-ACC
 'To whom did John say nothing?'

The next step is to build a set of questions by replacing the CT by some alternative to it. Obviously, as opposed to non-negative Contrastive Topics, we are facing a problem, in that it is not so straightforward to propose alternatives to a negative constituent. This has to do with the quantificational nature of negative elements. Potentially, an alternative to *nothing* may be of two kinds, depending on the nature of the negative quantifier. The literature on Hungarian negation provides a rich discussion on the nature of the negative quantifier. Essentially, whereas Puskás (2000) and Olsvay (2000) claim that *senki*-type negative quantifiers are universal quantifiers, Surányi (2003) argues that negative quantifiers in Hungarian may be either universal or existential quantifiers. Crucially, the difference will reside in the fact that universal quantifiers are assumed to be presuppositional, whereas existential quantifiers are claimed to be non-presuppositional. However, given Gyutis' analysis of CT, it seems that the problem may not arise in these terms.

Recall that Gyuris argues that a CT constituent denotes a property or set (as opposed to an individual) and the sentence in which it appears then predicates something about this property. This is exemplified from DN in (36) below:

- (36) $\sqrt{\text{Semelyik könyv}}$ '*senkinek* *nem tetszett*.
 no book-NOM nobody-DAT NEG pleased
 'It was Mary who read few books'

The interpretation of (36) will be that "No individual is such that none of the books pleased him". In other words, the negative universal quantifier in Focus takes each individual and applies to it the property of linking no book. We indeed observe that for the negative quantifier in CT position, the possibility to distribute is lost (see also Alberti and Medve 2000), and we consider the set as applying as such to the members of the set denoted by *senkinek* ('to nobody').

Bearing this in mind, I would like to propose that the set of alternatives induced by a DN negative quantifier is quantificational, but that the pre-suppositional/non-presuppositional component is irrelevant. What matters is whether the expression can function as a quantificational set. Therefore, possible alternative sub-questions will be of the form below:

- (37) a. *János kinek nem mondott valamit?*
 John-NOM who-DAT NEG said-3s something-ACC
 "To whom did John not say something?"
- b. *János kinek nem mondott két dolgot?*
 John-NOM who-DAT NEG said-3s two thing-ACC
 "To whom did John not say two things?"

We see that it is possible to construct alternative sub-questions, where the DN negative quantifier is replaced by alternative quantificational elements. Following Büring and Gyuris, I will assume that these alternatives have to be taken as implicatures triggered by the CT marking on the DN negative quantifier.

7. Conclusion

Contrastive Topics have been the object of a number of recent studies. Although the literature offers various approaches, they seem to converge on a certain number of points. Among these, we have noted the L*H intonational pattern and the (variously developed) alternative triggering property. The accessibility to alternatives has been argued to be a pragmatic effect, an implicature associated with the contrastive content of the CT. In this paper, I have examined the properties of double negation in Hungarian, and shown how the proposed approaches to Contrastive Topics match these properties. I have therefore proposed that a double negation reading is available if the relevant negative quantifier is a Contrastive Topic. This

can be shown both because of the intonational properties of the negative quantifier and due to its semantic and pragmatic contributions to the interpretation of the sentence. For lack of space, I have simply alluded to the “parasitic” nature of the negative quantifier which contributes the DN reading. Several authors have suggested that double negation sentences contain some sort of “secondary” predication (see e.g. Baker 1970, Féry 1992, Huddleston 1991, Ladusaw 1996). The semantic and pragmatic dependency of DN on the elements contributing the main negation does suggest that the negative expression responsible for the DN reading is somehow dependent, or “parasitic” on the first negative relation. The approach was suggested in Puskás 2002, and implemented as a negative relation parasitic on the primary negative relation which licenses “primary” n-words. However, a more elaborate answer will depend on a closer scrutiny of both the syntax of double negation and of Contrastive Topics.

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Notes

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1. Negative Concord refers to the phenomenon, found in many languages, by which different negative elements in a sentence contribute one and only one negative force. This contrasts with the phenomenon under discussion here, Double Negation, where different negative elements each contribute a separate negative force to the sentence.
 2. The emphatic mark standardly corresponds to a falling intonation (H*L). Although H*L is usually associated with (some version of) Focus in preverbal position, it is not quite clear whether negative quantifiers are actually focused. In sentences involving Negative Concord, it seems that not only the first, preverbal negative quantifiers bears a stress, but all other negative elements which enter into NC bear this stress: “neg-phrases are always stressed in post-verbal position: we have taken this throughout as indicating LF movement.” (Brody 1990:224).
 3. This example, as well as other examples with DN, is obviously felicitous only if it is uttered with a particular intonation contour. The reader is referred to section 3 below for a discussion of intonational properties of DN.
 4. Note that even the truth-conditional meaning may not yield perfect synonymy. Horn assumes an analysis of predicate denial as a mode of predication. He notes that wide-scope negation is not a one-place iterating propositional connective. There can be no true double contradictory negation. Horn claims that this is the case even in terms of truth-conditional semantics. Consider the following examples [Horn 1991]:
 - (i)a. *The Queen of England is transitive*
 - b. *The Queen of England is not intransitive.*
 Sentence (ib), where the double negation is rendered by *not in-*, is true. How-

ever, its affirmative counterpart in (ia) is false, as the Queen of England is neither transitive nor intransitive if she is not a verb. Horn concludes that there is no true synonymy

5. The canonical Focus position in Hungarian is the position to the immediate left of the inflected verb (see Brody 1990, E-Kiss 1987, 2002 among others). In a negative sentence, both the inflected verb and the negative marker *nem* occupy the position of the inflected verb (see Puskás 1998 for arguments).
6. The Focus properties of negative quantifiers are not so clear, though. Non-negative constituents surfacing in the preverbal Focus position are interpreted as exhaustive and/or contrastive Focus. It is not clear what the exhaustive or contrastive interpretation of negative quantifiers might be. This has been, and still is, an issue about the preverbal position of negative quantifiers in Hungarian (see e.g. Olsvay 2000 vs Surányi 2003).
7. On the notion of Topic as “given”, see, among others, Halliday 1967, Gundel 1988, Lambrecht 1994, Vallduví and Engdahl 1996, and also Ostman and Virtanen 1999.
8. Although the theory of Discourse-trees is a complex and elaborate system, I give here the very elementary notions relevant to the analysis of Contrastive Topic. In a D-tree model, a discourse is organized in a hierarchical system of questions (with possible subquestions) where the terminal nodes are answers, and each node (called a Move) is required to meet well-formedness conditions for the D-tree to be well-formed. Among others, well-formedness conditions require that a Move be informative, relevant and satisfy the givenness condition. The reader is referred to Büring 1997, 1999 for a complete discussion.
9. Gyuris refers to Kálmán and Nádasdy’s (1994) definition, which states that an eradicating stress is a main stress that cannot be followed by another main stress, unless the latter is also an eradicating stress.
10. One reviewer notes that an example such as (i) below is rather bad on the required reading:

- (i) János √senkit senkinek nem mutatott be
 János nobody-ACC no one-DAT NEG introduced-3s part
 ‘János didn’t introduce √anybody to ‘no one’

It seems that some sentences yield a more interpretable result than others. This is not surprising under the CT analysis, as Gyuris notes that CT readings are possible if the alternatives they implicate are available. It might be the case that for negative quantifiers, the alternatives are more or less difficult to get.