

# The International Corpus of English (GB)

## A Study of Negation

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### Abstract

This paper reports on a study of negation in spoken data from the International Corpus of English (ICE-GB). This is motivated by the posited distinction between straightforward *descriptive* negation and so-called *metalinguistic* negation (*cf.* Horn, 1985), despite a considerable grey area between the clearest instances of these forms in actual discourse. The present aim is to reconcile such theoretical discussion with real life data, in an attempt to assess the true extent (and indeed utility) of these purported categories.

### 1. A marked class of negation

This paper reports the procedure of a study using spoken data from the International Corpus of English (ICE-GB) to assess the nature and function of negation in everyday discourse. This arises from Horn's distinction (Horn, 1985) between cases of straightforward *descriptive* negation [as in (1)] and so-called *metalinguistic* negation [as in (2)]:

- (1) James isn't happy [... *he's sad*]
- (2) James isn't happy – *he's ecstatic (!)*

Example (1) functions *descriptively* by virtue of describing some straightforward state of affairs in a bivalent world: if 'James is not happy', one might reasonably (logically) appeal to the *opposite* of happy; thus inferring that James is sad. On the other hand, Horn (1985:136) accounts for the special case in (2) as applying (*meta-linguistically*) to some interpretive feature of a previous utterance in the given context. The features qualifying as such constitute a wide range of phenomena: in addition to targeting the conventional implicature associated with scalar terms [as with 'happy' in (2)], metalinguistic negation might alternatively target the conventionally implied causal relation arising from 'and' [as in (3)], the assumed exclusivity carried by 'or' [as in (4)], connotations associated with a particular lexical item [as in (5)], or the placement of focus within an utterance [as in (6)]. It might alternatively target phonetic properties such as accent or pronunciation [as in (7)], grammatical judgments such as morphology [as in (8)], or even a presupposition carried by the utterance [as in (9)].<sup>2</sup>

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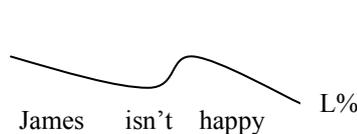
<sup>2</sup> *Cf.* Horn (1985) and Pitts (2007b) for further examples and an expanded introduction to metalinguistic negation.

- (3) Matthew didn't get told off and slam the bedroom door  
– *he slammed the bedroom door and got told off*
- (4) We didn't have a hawaiian or vegetarian pizza – *we had both*
- (5) It's not a hardship – *it's character building*
- (6) The duke of York isn't halfway up the hill – *he's halfway down*
- (7) I don't cook with [ʔɛ.ɪbz] like [beɪzəl] and [ʔəɾɛgənoʊ]  
– *I use [hɜːbz] such as [bazəl] and [ʔv.ɪgɑːnəʊ]*
- (8) Will isn't swimming with the fishes – *he's swimming with the fish*
- (9) I'm not grateful to Tracey for helping us out – *she didn't help us!*

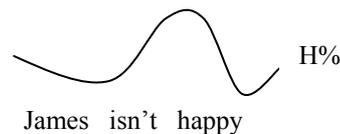
On account of the broad range of interpretive features targeted by this metalinguistic operator, Horn (1989:363) characterises the phenomenon as “a device for objecting to a previous utterance on any grounds whatever.” He proceeds by positing a number of diagnostics for metalinguistic negation (Horn, 1985:140ff.), beginning with the claim that unlike descriptive negation, metalinguistic negation disallows prefixal incorporation<sup>3</sup> as a substitute term within the original scope of the negation [as illustrated by (10) and (11)]. He also claims (*ibid.*) that any metalinguistic negation (unlike its descriptive counterpart) fails to licence the insertion of a negative polarity item<sup>4</sup> [as illustrated by (12) and (13)]:

- (10) James is **un**happy – *he's sad* [descriptive]
- (11) \*James is **un**happy – *he's ecstatic* [metalinguistic]
- (12) The duke of York isn't halfway up the hill **at all** – *he's still at the bottom*
- (13) \*The duke of York isn't halfway up the hill **at all** – *he's halfway down*

Horn (1989:402) further states that the typical framework for metalinguistic negation is the *Not X but Y* construct, in which Y acts as an appropriate rejoinder; crucially signifying the metalinguistic (marked) nature of the negation. Finally, he also stakes a claim about the intonation of such constructs (*cf.* Horn, 1989:229); indicating that the descriptive reading of a negative clause typically employs a *declarative* intonation contour with “normal stress and a final fall” [as in figure 1], whereas a metalinguistic reading emerges more clearly if it employs a *contrastive* contour – with a focal stress on the offending item and a rising boundary tone [as in figure 2]:



**Figure 1:**  
*Declarative contour*



**Figure 2:**  
*Contrastive contour*

Indeed, Horn (1985:157) goes so far as to claim that the rising boundary tone “applies across the board to *all* instances of metalinguistic negation.” Influenced by the rise of experimental approaches to pragmatics in recent years, Pitts (2005) attempted to put these claims to the test.

## 2. Testing the theory

<sup>3</sup> E.g. *un-*, *non-*, *in-*, *im-*.

<sup>4</sup> E.g. *any*, *ever* or *at all*.

Pitts (2005) addressed this ‘marked’ class of negation by conducting experiments designed to elicit the boundary contour tone from a number of descriptive and metalinguistic utterances. The results of these intonation experiments suggested a gradient effect extending from descriptive negation (most commonly employing a declarative contour) through different sub-classes of metalinguistic forms to the most intonationally marked (*i.e.* contrastive) cases (Pitts, 2005:37).

This possibility of a gradience in form, rather than a clear-set distinction between straightforward cases of descriptive and metalinguistic negation, does not lend support to Horn’s initial claim that all negative tokens should be assigned to “one of these two basic types” (*cf.* Horn, 1985:165). Indeed, whilst there does appear to be some intuitive basis on which we can easily accept the original dichotomy as introduced in (1)-(9) above, it seems that this distinction is perhaps not as clear cut as it first appeared. Reconsider (1); now providing a direct response (B) to some prior utterance (A):

- (14) A: James is happy  
B: James is *not* happy [– *he’s sad*]

If B clearly objects to A’s previous utterance, surely B now qualifies as metalinguistic by Horn’s characterisation in §1.1, despite the fact that it also – still – functions descriptively. Now consider (15):

- (15) C: This is a lovely big kitchen  
D: Picture? What picture’s that?  
C: I didn’t say ‘picture;’ I said *kitchen!*

It may seem natural to qualify the negation in (15) as metalinguistic, on account of the linguistic form evidently being targeted by C.<sup>5</sup> Yet upon reflection, this negation might also be viewed as functioning descriptively: whilst ‘kitchen’ and ‘picture’ do not constitute opposites within a bivalent world, they *are* nevertheless entirely distinct concepts (in contrast with the relationship between ‘happy’ and ‘ecstatic’; or between [ʔɛ:ɪbz] and [hɜ:bz] above).

Having acknowledged the existence of such apparently mixed forms, we soon become aware of a considerable grey area emerging between the clearest instances of descriptive and metalinguistic negation. Furthermore, the intonation tests briefly mentioned above highlighted a number of difficulties in addressing such pragmatic phenomena with experimental approaches, on account of the fact that pragmatics fundamentally appeals to numerous interconnecting factors governing our *use of language in society*. Credible experimental approaches require the isolation of particular variables, and in attempting to test a fundamentally philosophical notion (such as an alleged ambiguity in an everyday linguistic term), we may be left questioning how naturalistic (or indeed credible) any such elicited material and derived conclusions can be. The ideal alternative would progress beyond constructing convenient examples, and instead challenge this fundamentally theoretical distinction on the basis of *real discourse* in interaction.

This provides the basis for the present venture, which now aims to address the true extent (and indeed utility) of these purported categories by appealing to real life data: can we validate Horn’s dichotomy by virtue of clear, identifiable cases which

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<sup>5</sup> By virtue of highlighting a blatant ‘slip of the ear.’

lend themselves to one of the two classes? Are the characteristic traits of metalinguistic negation supported by the data? The material selected for analysis is elicited from the International Corpus of English, discussed in §3ff.

### 3. A new approach: ICE (GB)

The Great British component of The International Corpus of English (ICE-GB) documents the speech of British adults during the early nineteen nineties. This one million word corpus is accompanied by over seventy hours of recorded speech data from spontaneous discourse;<sup>6</sup> a factor precluded by the previous experimental approach. From this, the corpus already offers a vast improvement from constructed experiments in terms of obtaining naturalistic data.

ICE-GB is fully tagged and parsed; providing an easy means of identifying all instances of the negative particle (*not*) and the enclitic form (*\*n't*). The frequency of each item (for the entire corpus and for the spoken component alone) is shown in table 1:

Search Item	ICE-GB (normal <sup>7</sup> )	Spoken component
not	4,830	2,822
*n't	5,818	5,074

**Table 1:** Frequency of negative particle in ICE-GB

This study considers all and only the texts accompanied by the spoken component of ICE-GB, in an attempt to produce a multimodal account of negation in spoken English (*i.e.*, incorporating intonational features). The feature analysis is discussed in further detail in §3.1, using the assessment of the negative particle '*not*' as an illustration of the procedure.<sup>8</sup>

#### 3.1 Identifying descriptive forms

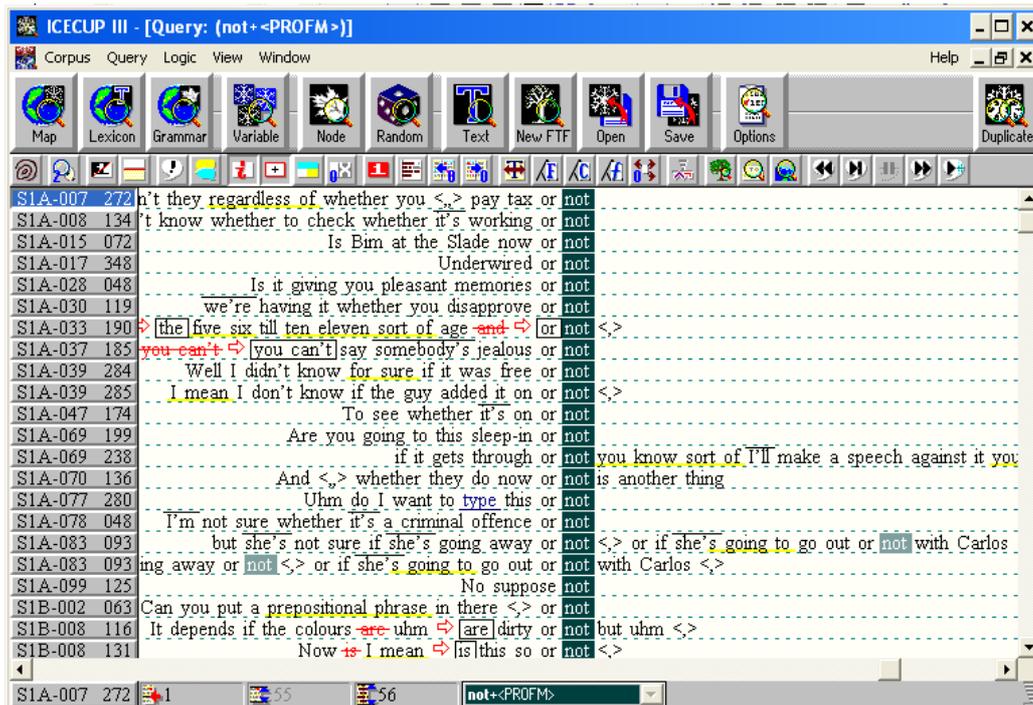
The analysis began by locating all tokens in which the negative particle was tagged as a proform.<sup>9</sup> This immediately identified a number of cases appealing to a bivalent state of affairs; giving rise to a likely descriptive interpretation of the negation. The outcome of this query is illustrated by figure 3:

<sup>6</sup> Cf. Nelson *et al.* (2002) for detailed information about ICE-GB.

<sup>7</sup> This total excludes all ignored ('nonfluent') tokens (cf. Nelson *et al.*, 2002:16).

<sup>8</sup> The assessment of the enclitic form is subdivided into distinct lexical items (*don't*, *didn't*, *can't*, *isn't* *etc.*). Cf. Pitts (2007c) for the results of this analysis.

<sup>9</sup> E.g. 'X *or not*.'



text unit id. current total hits query

Figure 3: Outcome of search for 'not' as a proform

In addition to this, and if we adhere to Horn's earlier stipulations, any occurrences of negative polarity items (as with 'at all' in figure 4) must also present a case of ordinary truth functional (descriptive) negation:

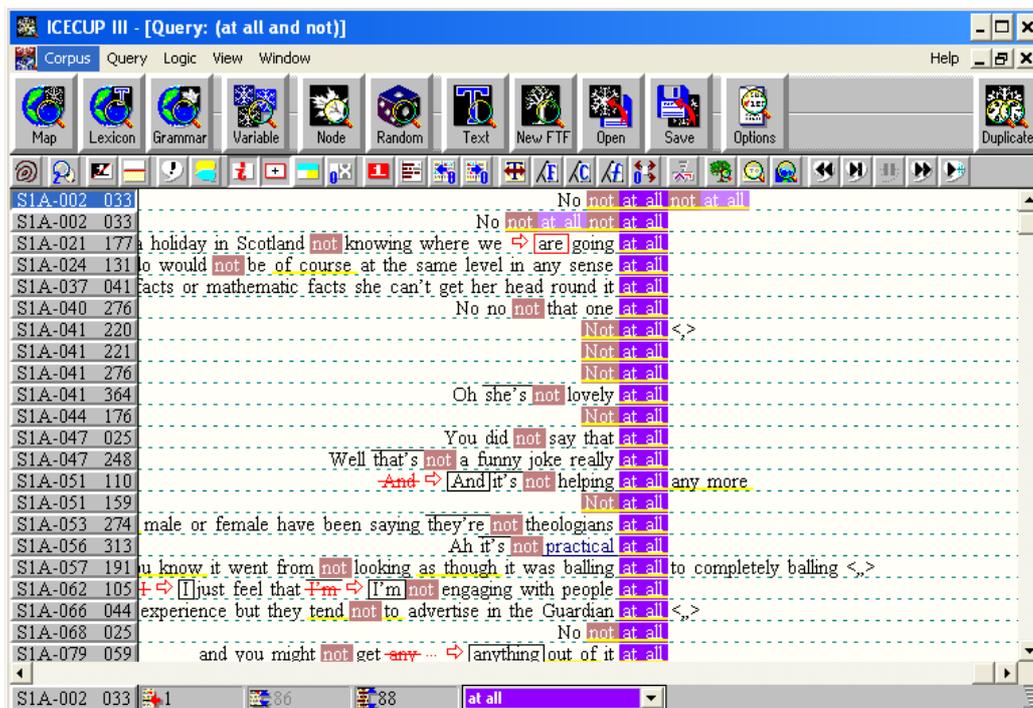


Figure 4: Outcome of search for negative polarity item 'at all'

However, these searches are not geared towards identifying cases of so-called *metalinguistic* negation within the corpus; let alone providing any means of putting Horn's diagnostics to the test. With this in mind, and with the aim of establishing a functional classification applicable to *all* negative tokens in the query, each individual token was assessed in accordance with its preceding context, in an attempt to identify the basic *target* of the negation.

### 3.2 A reformed classification

The most salient target of the negation arising from the corpus data corresponds with what one might call *metalinguistic negation proper*. In such cases, the negation clearly targeted some *prior linguistic utterance* in the discourse context. This is termed a case of *type-A* negation (as shown in figure 5):

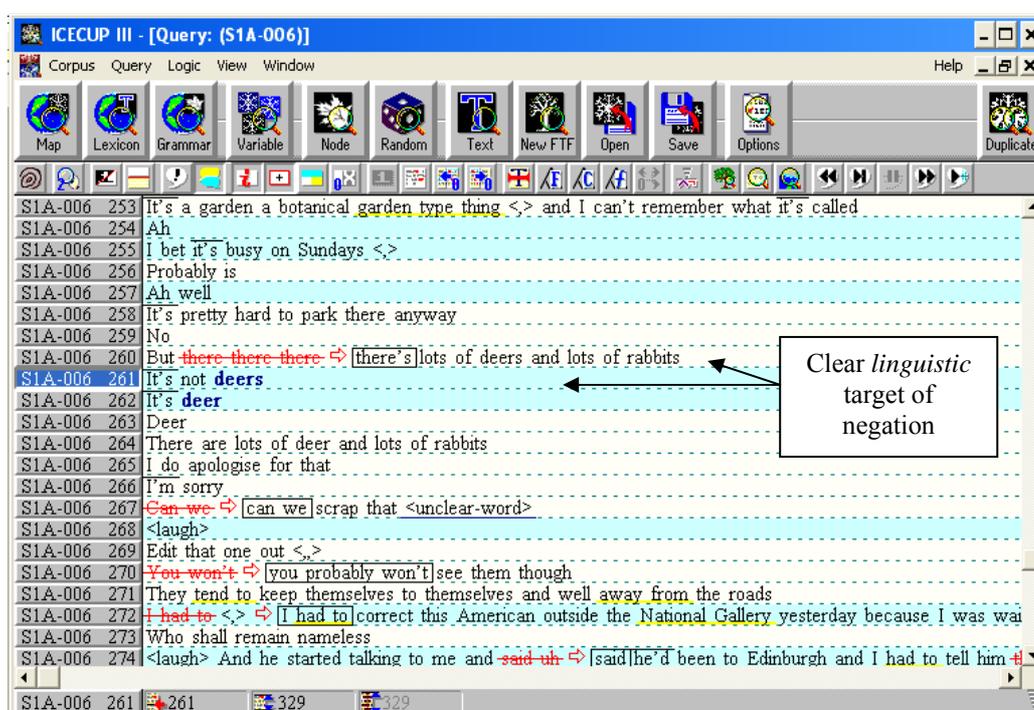


Figure 5: Example of type-A negation

If the token did not directly target any prior linguistic utterance, it might instead qualify as targeting some derivable (conventional) pragmatic *inference* arising within the given discourse context (as in figure 6):

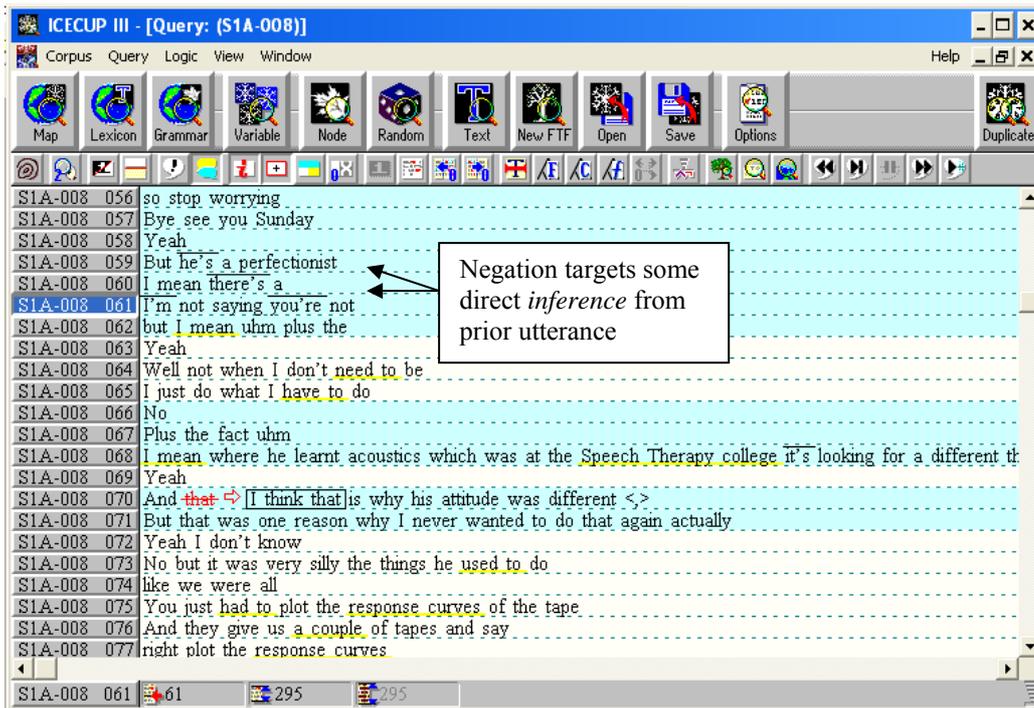


Figure 6: Example of type-B negation

If however, the negative token did not qualify as type-A or type-B, the speaker may have been targeting some salient phrase or common predisposition. In such cases the preceding context gave no evidence of previous mention, yet the introduction of the target within the scope of the negation did not appear to jeopardize coherence (as in figure 7):

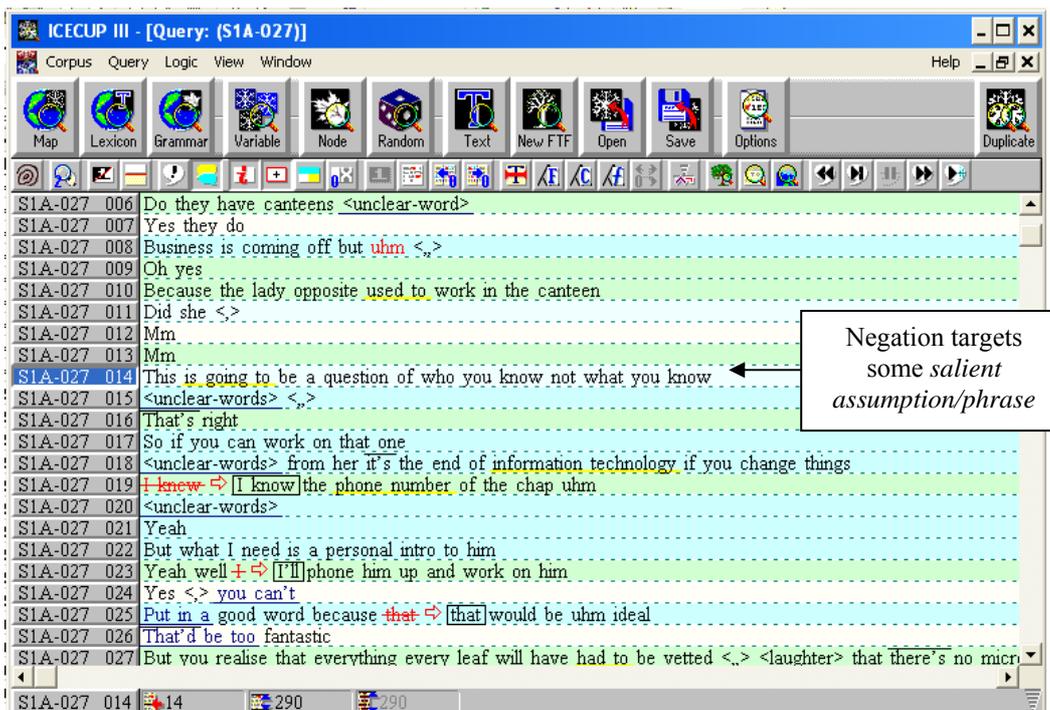


Figure 7: Example of type-C negation

Finally, the fourth category emerging from the data (type-D) worked on the basis of simply describing some straightforward state of affairs in the world (again, with no prior mention in the discourse context); thus conforming to the basic understanding of unmarked descriptive forms. This four-way distinction gave rise to a new, finer grained classification in terms of what the negation *represented*:<sup>10</sup>

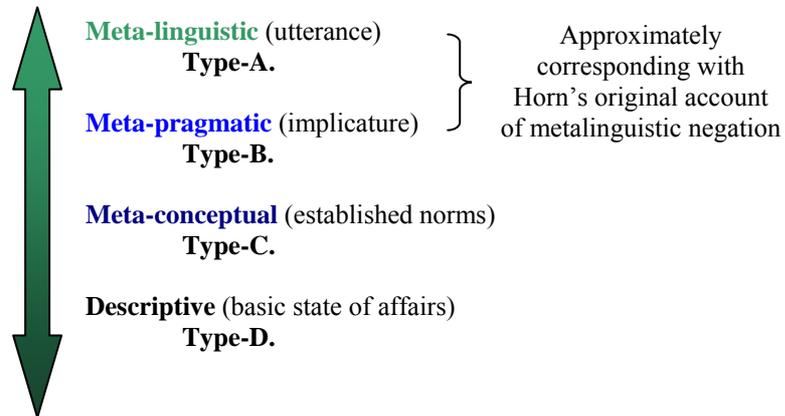


Figure 8: Finer grained distinction

### 3.3 Feature assessment

This classification consequently provided a means of assessing whether the alleged traits of metalinguistic negation are corroborated by the corpus data (most notably; cases classified as type-A). From this, recall Horn's structural diagnostic; featuring constructs of the form *Not X but Y* (as in figure 9):

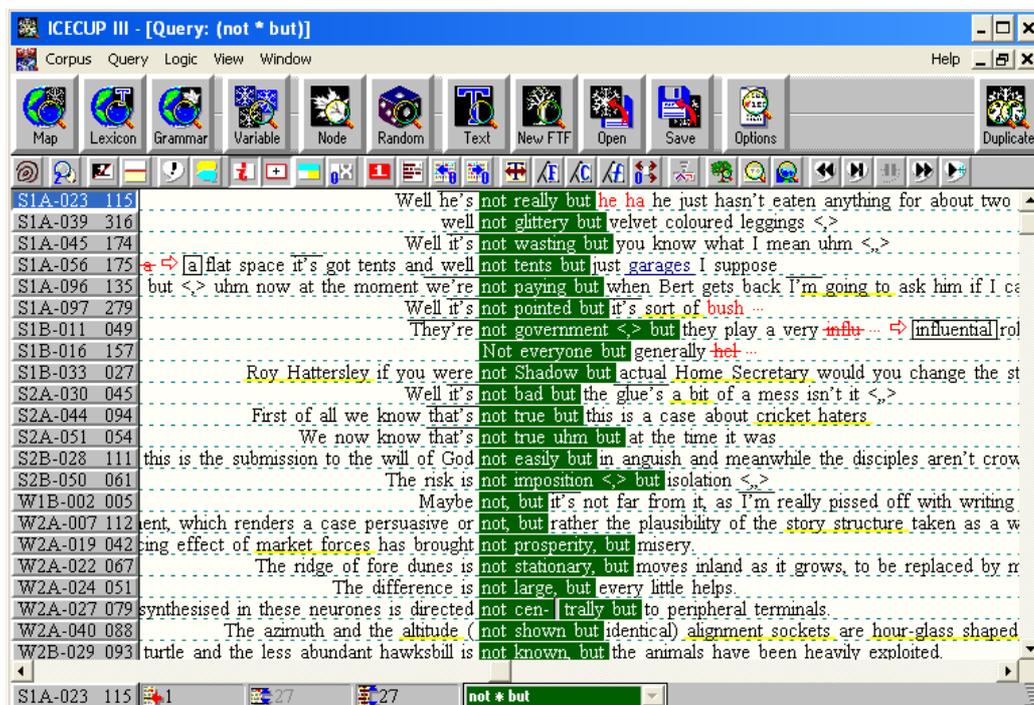


Figure 9: Results of search for *Not X but Y*

<sup>10</sup> Cf. Pitts (2007a) for an introduction to the classification.

This diagnostic is particularly contentious, as Carston (1998:317) observes that a reversal of the clausal ordering may have no effect on the metalinguistic interpretation of such utterances. On account of this, all cases in which the corrective clause *preceded* the negation were also noted.<sup>11</sup>

Finally, agreed cases of marked, metalinguistic negation within the corpus must, if endorsing Horn's account, preclude prefixal incorporation. However, a search for prefixal incorporation with the query for 'not' inevitably identified the use of *two* negative terms<sup>12</sup> within the clause:

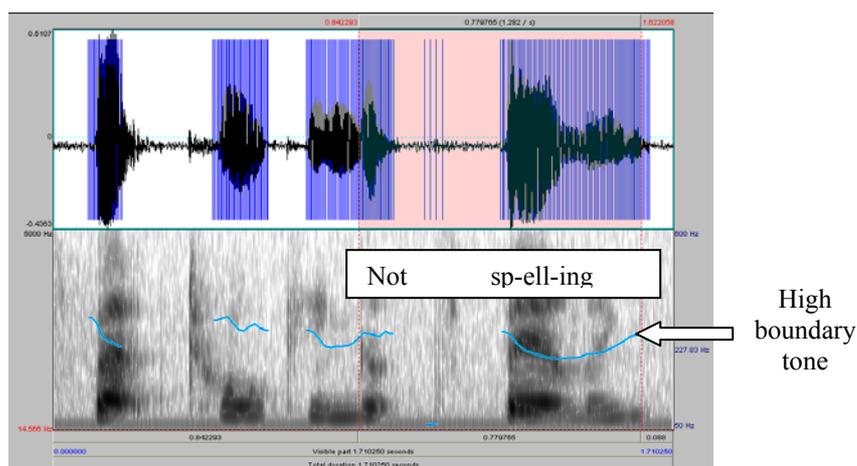
- (16) It looks not unlike Hyde Park [S1A-056 157]  
 (17) The two are not unrelated [S1B-015 072]

Such cases of understatement or indirectness through the use of two negative terms qualify as an essentially pragmatic matter; extending to a variety of cases in which two negatives are employed:

- (18) This is a dance group which does not exclude people [S1A-001 030]  
 (19) I'm not saying you're not [S1A-008 061]

Indeed, having posited a categorical assignment and acknowledged certain structural, semantic and pragmatic features of the tokens under consideration, attention now shifts to further interpretive aspects of the utterance; namely prosodic features. Such an analysis may provide a new attempt to assess the relationship between prosody and our interpretation of a negative construct as a straightforward negation (*cf.* type-D) or something more marked in terms of *denial* (*cf.* types A-C).

The first prosodic feature under analysis regarded lexical focus within the negative clause; allocated on the basis of perception judgments. Next, Horn's account of the characteristic intonation employed by these forms came under scrutiny once more. Taking the negative clause as an intonation phrase, each token was assigned a boundary tone on the basis of perception judgments; verified by analysis of the corresponding sound file using Praat (as illustrated by figure 10):



**Figure 10:** Praat analysis [S1A-038 314]

<sup>11</sup> A thorough individual analysis ensued to identify all tokens occurring alongside a corrective clause; even in the absence of the contrastive (*i.e.* conveniently tagged) particle 'but'.

<sup>12</sup> *Cf. litotes.* This may include, but is not limited to, logical double negation.

#### 4. Discussion

The procedure summarised above aims at reconciling a basic theoretical distinction in pragmatics with a number of structural, semantic, pragmatic and prosodic features occurring in real discourse data, as part of a broader consideration of metalinguistic negation.

In an attempt to assess all negative tokens within the corpus by virtue of the *target* of the negation, the renewed classification posits two intermediate tiers between the clearest forms of descriptive and metalinguistic negation. Nevertheless, Horn's basic dichotomy may be cautiously retained on account of type-D negation directly representing some basic state of affairs, rather than *metarepresenting* some further judgment as an utterance, thought or assumption (*qua* types A-C).<sup>13</sup> This permits type-D to coexist alongside another allocation for any negative token, as in the mixed forms identified earlier. Furthermore, by positing this distinction between type-D as representational and types A-C as *metarepresentational*, we are led to consider the possibility that descriptive and metalinguistic negation as originally construed may simply appeal to *distinct dimensions* of negation, whereby descriptive negation relates to the manner in which the negation *functions*, whilst metalinguistic negation appeals to the *input* giving rise to a certain type of denial.

Through appealing to the corpus data, it became clear that a number of Horn's proposed characteristics for metalinguistic negation may, at best, be assessed *post-allocation*, as they provide no basis for classification in themselves. Indeed, the next step is to provide a full summary of the data collected: if any examples qualifying as metalinguistic (such as type-A) *do* permit prefixal incorporation, Horn's first diagnostic faces serious challenges. If negative polarity items occur in any such metalinguistic cases, Horn's second diagnostic comes under threat. If a number of cases adopt the *Y; not X* structure, Horn's third diagnostic proves unstable. Furthermore, the ability to classify terminal contour and locate items of primary lexical stress within the clause provide a means of evaluating Horn's claims regarding the typically *contrastive* nature of metalinguistic negation.

The main utility of the corpus is arguably the vast body of data from which *real* examples of metalinguistic negation (to a greater or lesser degree) can be identified. Ultimately, this project is intended to provide the basis for an honest, original evaluation of such theory. The procedure as set out above involves the assessment of individual tokens (particularly – inevitably – for certain pragmatic and prosodic features), but such an analysis may be expected to give rise to a number of thoughtful observations in doing so. On account of this, the current venture serves to illustrate the potential utility of spoken corpus material in overcoming certain limitations which may arise from adopting experimental methods in pragmatics. Such developments should enable us to test the boundaries of current methods in pragmatics, with the aim of anticipating future, credible developments in a multimodal assessment of linguistic theory.

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<sup>13</sup> Cf. Wilson (2000) for an account of metarepresentation in language.

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