# CONCERNING AMERICAN PARENTHETICAL EXPRESSIONS IN SYNTAX

AN ABSTRACT

SUBMITTED ON THE 15th DAY OF MARCH, 2016
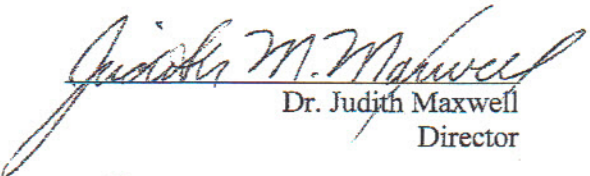
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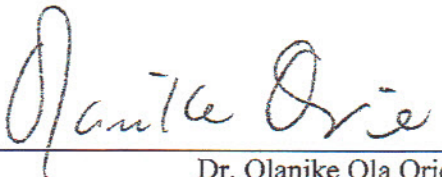
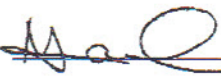OF THE SCHOOL OF LIBERAL ARTS OF TULANE UNIVERSITY

BY

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# ABSTRACT

Concerning American Parenthetical Expressions in Syntax offers an introductory study of the oddity of parenthetical expressions (or PEs) across American dialects of English from a data-driven, syntactic point of view. CAPES presents the results from over 42,000 speaker judgments of audio files containing spoken utterances with parentheticals. These utterances test the possible interpolation points of four pragmatically defined categories of parentheticals – Vocatives, Mitigatory PEs, Evidential PEs, and Expletives – as well as some of the possibilities for multiple PEs appearing in the same utterance. These possible interpolation points have been tested in coordination with complex structures and movement operations. Analysis of these data has shown that there are significant differences in patterns of grammatical interpolation points for each of these categories. Despite the clear distinctions present in these categories' interpolation profiles, some positions remain more likely than others to grammatically allow PEs. These positions are, in decreasing order of likelihood, the left edge, the right edge, following the first (i.e. highest) subject, and preceding an embedded CP. The data have also shown sensitivity to movement operations which suggest that they attach at the surface level of syntactic development. Expletives have been proven to stand alone in many respects, being the least likely of all the studied categories to be grammatically allowed in an utterance-internal position. Additionally, though the data show that up to four PEs may be stacked at the left edge, this is only possible when the Expletive is the leftmost PE.

CONCERNING AMERICAN PARENTHETICAL EXPRESSIONS IN SYNTAX

A DISSERTATION

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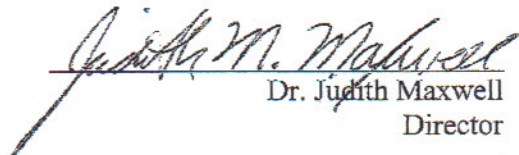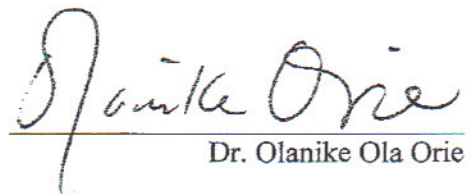
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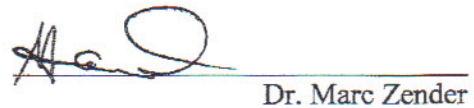
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# ACKNOWLEDGEMENTS

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# 1. INTRODUCTION

## 1 Defining a Parenthetical Expression

Traditionally in the scholarship, the terms "parenthetical", "parenthetical expression", and "parenthetical sequence" have been used more or less synonymously, but the concept to which they all refer has been defined in varied ways. For the most part, definitions have begun with their semantic/pragmatic functions. Historically, some have considered them to be the result of disfluency (see Clark 1999). In more recent years, however, linguists have largely dismissed that idea and found that parentheticals are an intentional stylistic choice (Blakemore 2005:1167). From a more pragmatic perspective, they are not a proposition themselves, but, rather, are used to orient the hearer regarding how they should respond to the proposition.

> "Parenthetical sequences are a solution to a design problem. The device enables a speaker to reconcile the potentially contradictory requirements that in the linearity of speech production poses to the speaker's orientation to recipient design."
>
> (Mazeland 2007:1816)

Each parenthetical, though not contributing to the proposition itself, does contribute to the utterance - "…in each case the speaker is performing two distinct acts of communication, one of which is designed to help the hearer with the processing of the

other." (Blakemore 1990-1991: 210). This is a fact true of all parentheticals. How they do so precisely varies depending on the type of parenthetical. For example, those I am terming "Evidential" parentheticals, help to orient the hearer as to the veracity of the proposition as known by the speaker.

> "The relevance of the second act of communication lies in the way it helps the hearer understand the first act. More specifically, it leads the hearer to understand that the proposition that the speaker is presenting is relevant as an assumption for which she holds less than conclusive evidence."
> (Blakemore 1990-1991: 207).

Others have given them a different classification. For example, according to Hand (1993:501), "*think* and *guess* are both verbs of 'hedging', serving to reduce the normal speaker commitment associated with the assertion…the speaker needs the matrix to hedge the already present illocutionary force, rather than to carry the force itself." Fraser (1980) has argued for parenthetical verbs being a strategy meant to indicate the speaker's intention to mitigate his/her proposition. This may be true in some instances, and the lines between Mitigatory parenthetical expressions and Evidential PEs can be hard to pin down. However, objects such as "I hear" do inherently also serve the function of evidentials – demonstrating the level of confidence the speaker has in the utterance. On the other hand, those which I have termed "Mitigatory" PEs (e.g. "incidentally", "it turns out") do not generally seem to serve such a function. Other parentheticals, such as Vocatives, are used to affirm the intended hearer of an utterance (e.g. "Joe, your zipper is down" rather than "Your zipper is down"), but may also, by the contents of that address, also inform the hearer of the speakers attitude regarding the proposition (e.g. "You thoughtless jackass, you ran over my bike!"). Last of my categories, but not least, Expletives are used to

further indicate the emotional context of a proposition from the perspective of the speaker

rather than being oriented towards the emotional state of the hearer like Mitigatory PEs.

These certainly do not account for all parentheticals, but the four categories presented

here will be the ones upon which this paper focuses.

Semantically, there have been several different theories as to how to analyze

parenthetical expressions. While Urmson (1952) has argued that parenthetical verbs are

non-truth conditional indicators, others have found differently. Asher (2000:49) has

proposed that PEs are "distinct discourse constituents and must be attached via some

discourse relation that interacts with the conditional". He goes on to argue that with such

an understanding of parentheticals, the unique qualities PEs present can be "explained

away" without "endorsing" their proposed non-truth conditional status (Asher 2000:50).

Interestingly, Infantidou-Trouki (1993) has tested four groups of adverbs, "attitudinal"

(e.g. *unfortunately, sadly*), "illocutionary" (e.g. *frankly, honestly*), "hearsay" (e.g.

*allegedly, reportedly*), "evidential" (e.g. *obviously, clearly*), and has found that the

former two categories do not affect truth conditions, but the latter two, in fact, *do* affect

the host's truth conditions. Truth-conditions or not, she has concluded that all of these

types contribute conceptual information. The attitudinal and illocutionary adverbs

contribute to the proposition, and the hearsay and evidential adverbs contribute to higher-

level explicatures[1]. Further, parentheticals are able to encode procedural information

according to Dehe and Kavalova (2006:300ff). Potts (2002, 2005:7) has analyzed

parentheticals as non-at-issue entailments, which does account for their "inability to

express controversial proposition or main themes" (Dehe and Kavalova 2007: 10). Potts

---

[1] Higher level explicatures do not contribute to the truth conditions of a proposal, but "may be true or false in their own right" (Dehe and Kavalova 2007: 10).

(2005: 43) has also noted that the parenthetical may, as a conventional implicature, be influenced by the host's properties and be interpreted within the host's domain. Ackema and Neelman (2004) also noted this "one-sided dependency". All of these facts support the separation of parenthetical expressions (or PEs) from the case of disfluency (Dehe and Kavalova 2007: 10).

In determining what does and does not constitute a parenthetical[2], there are several areas that entail nuance at best and opacity at worst. However, with a little thought, the dividing lines generally become easier to distinguish. Some areas that may possibly come across with less clarity than preferred are instances in which a parenthetical expression includes a verb (sometimes called a "parenthetical verb" as with Blakemore (1990-1991), and Urmson (1966)), the sequence of which can be duplicated in a non-parenthetical fashion (usually as a higher level clause to the main clause). These PEs are used to "…prime the hearer to see the emotional significance, the logical relevance, and the reliability of our statements." (Urmson 1966:197).

Similarly, the parentheticals that I have, for the purposes of this dissertation, termed "Evidential Parenthetical Expressions" such as "I hear", "you know", "you see", etc., fall into the category previously termed "parenthetical verbs." The issue here is being able to see the difference between the intentional usage of a parenthetical or the usage of a basic verb. Blakemore (1990-1991) has provided an excellent example as to the issue in which the difference between her (16), which has two propositions, and (17) which has only one. In the former, the PE is used to inform the hearer how to interpret the

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[2] It may be relevant to note, here, that words signifying hesitation such as "uh", "um", "well", "so", and "like" will not be discussed in this body of work. This is because they are not truly parentheticals, but are rather "interjective hesitators" and, as such, are "not produced as a syntactic constituent" at all (see Hayashi & Yoon 2010:46).

proposition that the speaker does watch the television show, "Neighbors"; but in the latter, the occurrence of the same phrase, "I admit", has no such connotations – it is a simple case of a subordinated clause and the intended message of her (17) is related to the admission of the previously denied activity.

> "Similarly, I do not think that (16) has the same force as (17):
> (16) I do, I admit, watch Neighbors.
> (17) OK. I admit that I watch Neighbors."
>
> (Blakemore 1990-1991:203)

Blakemore (2006:1684) has drawn a distinction between the PE categories she terms "grammatical" and "discourse". The grammatical category (which includes non-restrictive relative clauses, nominal appositions, and adverbial PEs) contributes to the host, and discourse PEs make a contribution "in a context of assumptions made accessible by the interpretation of the host" (Blakemore 2006:1684).

Dehe and Kavalova (2007:9) have suggested that in the organization of all the items termed PEs, it may be of use to "exclude any interruptions addressed to a different person or located on a different discourse plane from that class of parentheticals", following Taglicht (1998:195)'s disqualification of expressions which are "addressed to the same person as the surrounding utterance but unconnected with it", such as "thank you" and "Come in!". Dehe and Kavalova (2007:9) have offered the delightfully succinct summary: "true members of the parenthetical class carry some relevance to the interpretation of the host".

## 2 Common Features of Parentheticals

There are several features which correlate with the use of parenthetical expressions, some of which are grammatical and others prosodic. From a pragmatic perspective, the definition of a parenthetical is as follows:

> "A speaker sometimes halts an ongoing turn constructional unit (TCU) before its completion, inserts a short parenthetical remark into it, and then returns to the halted TCU. A remarkable organizational feature of some of these parentheticals is that they are oriented to as [sic] something the recipient may respond to. As a consequence, a little sequence develops, which is managed within the borders of the ongoing turn. In the parenthetical sequence, the speaker informs the recipient metacommunicatively and in real time how to listen to the turn in progress."
>
> (Mazeland 2007:1816)

This "halting" of the TCU results in a prosodic effect conventionally referred to as "comma intonation". The criterion of the ever-noted "comma intonation" may come into play "as a way to mark a constituent as parallel to a proposition rather than part of it" (Haegeman 1988:344). This feature, or rather, set of prosodic features, has been discussed at length and certainly is helpful in determining parenthetical status, but it is certainly not the only criterion, as pointed out by Blakemore (2005):

> "…while it may be possible to identify canonical prosodic properties of parentheticals – a compression of pitch range, the de-accenting of potentially accentable syllables, a drop in loudness and an impression of acceleration – there are utterances which would be described as parenthetical according to some criterion but which involve an upward expansion of pitch, an increase in tempo and an increase in loudness (cf. Wichmann 2001:185)[3]."

---

[3] See also Potts (2002:650), Potts (2002), and Bolinger (1989).

Others have posited theories as to why the comma intonation occurs, beyond simply marking the use of a parenthetical. Hayes (1989) has noted that Intonational Phrase boundaries are often found at the onset of CPs and between subjects and predicates. It may follow that the positions in which the parentheticals grammatically occur may correlate with this position. Potts (2002) has argued that if the VP-internal Subject Hypothesis is adopted, the comma intonation associated with parenthetical as-clauses may present simply because they contain clauses (Potts 2002:650). It has also long been argued that parentheticals, being either syntactically distinct or forming adjunction structures, have their own prosodic domain following prosodic theory (Nespor and Vogel 1986, Selkirk 1986, 1995, Truckenbrodt 1995, etc.) wherein "major prosodic boundaries are predicted at major syntactic boundaries" (Dehe and Kavlova 2007: 13). However, these prosodic boundaries do not always coincide with syntactic parenthesis as shown by Dehe (2007). In a nutshell, "comma intonation" is not surprising surrounding PEs, but its presence or absence does not necessarily indicate parenthesis[4].

Some have suggested that parentheticals are also marked by grammatical features evident in the verb. "The parenthetical verb is a present tense, but not progressive. Parentheticals share this feature with performatives, and the explanation is the same in both cases." (Hand 1993:503; Urmson 1963). Again, while the presence of these features may support the likelihood that one has found a PE, it is not guaranteed.

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[4] There has been extensive work which has illustrated that PEs do not all fall into a single prosodic class (Arnold 2005), but can exhibit many different features. In some cases, they can even be integrated into an adjacent clause's prosodic domain (Crystal 1969: 235, Crystal 1969: 268, Armstrong and Ward 1926: 27f, Schubiger 1958: 98, Wichmann 2001: 186), or be exempt completely (Wichmann 2001: 186).

**3 Parentheticals in Syntax**

*3.1 Schrödinger's Node*

The primary issue with PEs in syntax is their unique paradox – a feature or, rather a set of behaviors, which I shall summarize by terming "Schrödinger's Node". This is to say that, given the behavior of parentheticals, they appear to be simultaneously both syntactically present and syntactically absent. There have been many attempts to investigate if not reconcile this paradox, with various scholars showing that parentheticals are somehow not related to the host in the same way that other objects are (e.g. arguments or traditional adjunct constituents) in that "they are not subject to the same syntactic operations in the host (cf. Espinal 1991:729-735 and Haegeman 1988: 233-235)" such as movement operations, they cannot be the subject of inquiry or the focus of an *it*-cleft construction (cf., e.g. Espinal 1991: 729ff, Haegeman 1988:233, Quirk et al. 1985: 504ff), nor do they fall under the scope of quantifiers "or any operators in the host clause" (see Espinal 1991: 731ff, Haegeman 1988:234, Peterson 1999: 235, Dehe and Kavalova 2007: 4).

Still, there are some pieces of evidence showing that parentheticals do have syntactic relationships with their hosts, such as the fact that anaphors contained in parentheticals can be bound by antecedents in the host clause (Hoffman 1998:302), as well as the fact that parentheticals have been shown to be possible "secondary predicates taking a DP on the host structure as its subject, and they can contain parasitic gaps that

are licensed by A'-movement in the host clause" (cf. Ackema and Neeleman 2004: 98, D'Avis 2005, Haider 2005, and Pittner 1995).

In pursuit of an explanation of this paradoxical characteristic, there have been many theories of syntactic analysis put forward, falling on all sides of the theoretical spectrum. On the one hand is the Radical Orphanage Approach (Safir 1986), and on the other, complete syntactic integration (Potts 2002). Neither of these black and white approaches seems to fully capture the nuances of attested behavior PEs exhibit, and, whilst each of these still has its proponents today, others have tried to find middle ground betwixt the two, creating novel structures and/or machinations to try to account for the puzzling trait.

*3.2 True Separation - the Radical Orphanage Approach*

Safir (1986:674) has presented an analysis of parentheticals and non-restrictive relative clauses as syntactic orphans which are not attached to the sentence structure until the LF' level and are thus unaffected by processes and principles which are active at S-structure and LF. The LF' level he proposes is "a level in which 'extra' arguments or constituents may be attached to independently grammatical sentences" (Safir 1986:672). He has proposed a structure as found in (1) without explicit discussion of his linear organization of the parenthetical with regard to the host clause or how the PP ends up in its eventual location, much to Haegeman's chagrin (Haegeman 1988:336: Safir 1986).

(1)

```
                            S
                _____|_____
               NP                           VP
               |                  _____|_____
               |                 V        PP            PP
               |                 |         /\            /‾‾\
             John             talked   of course    about politics
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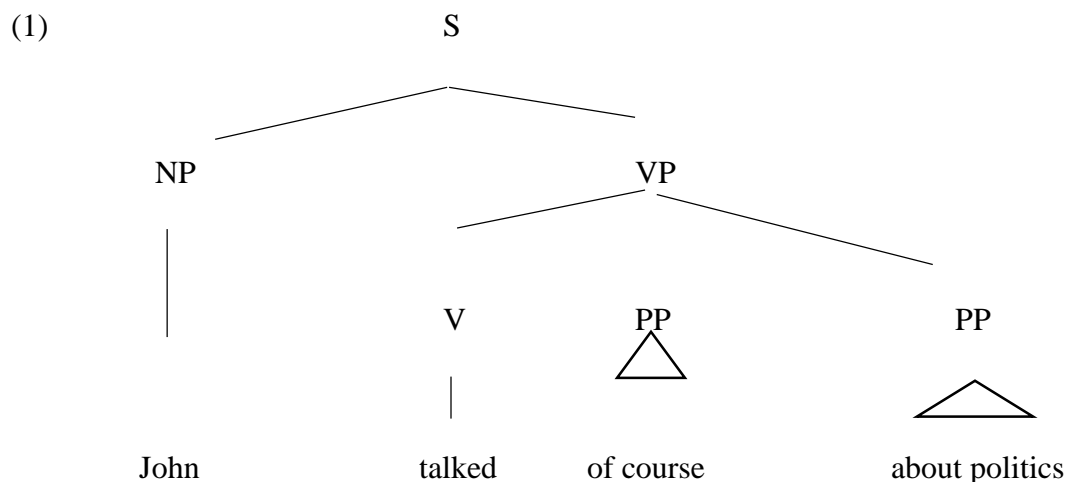
(Haegeman 2009:336)


Following Safir (1986), Haegeman (1988, 2009) has argued that parenthetical expressions, or "peripheral adverbial clauses", do not attach at the syntactic level, but are only considered modifiers at the pragmatic level. However, she takes this argument one step further, claiming that parentheticals are not only unattached before the LF' level, but, in fact, never attach at all. Supporting this claim is her argument that, unlike what she calls "central adverbial clauses" (i.e. non-parentheticals), "peripheral adverbial clauses cannot contain parasitic gaps" as she claims in (2). (Haegeman 1988:333[5]).

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[5] Primarily on the basis of data from Dutch, Ackema and Neeleman (2004: 98ff) argue that this ungrammaticality stems from the "internal syntax of contrastive *while*-clauses that blocks the licensing of parasitic gaps".

(2)     a. *This is a subject which Jon studied ___ in Cambridge while his son will be
            studying ___ in Oxford.
        b.  This is the document which John managed to memorize ___ while he was
            copying ___.



if I may ask
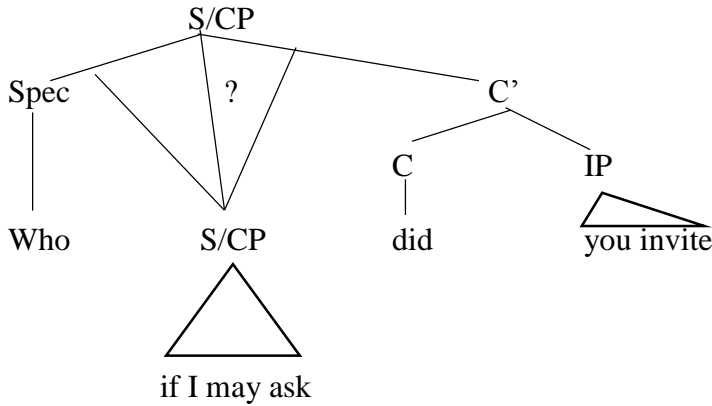
                                                                        (Haegeman 2009: 338)

Her proposal differs from Safir's in that she has issues with two implicit tenets of his

argument: the Attach Alpha rule and the notion of Full Interpretation regarding the

proposed level of LF'.

        Rather, she argues that the parentheticals have an "external structural position"

and as such, "are not subject to the syntactic processes that depend on c-command

constraints". While it seems intuitively reasonable to consider parentheticals somehow

distinct from the utterance in which they have been embedded, I am of the opinion that if

rules govern where they may be, there must be an attachment. Later scholars have gone

on to support this theory with observations of the seeming independence of PEs, such as

their inability to be the focus of a cleft, the fact they cannot be questioned, that they are

not subject to the scope of quantifiers, are unaffected by negation in the host clause, do

not count as part of a pronoun's VP antecedent, (e.g. Jackendoff (1976), Emonds (1979),

Fabb (1990), Espinal (1991), Haegeman (1998), Burton-Roberts (1999), McCawley (1982), (1998), Peterson (1999)).

### 3.3 Various Theories of Attachment

Essentially, the debate comes down, in the words of Noel Burton-Roberts (2006), to "whether parentheticals should – and can – be treated in syntax or instead be regarded as a performance (utterance, discourse) phenomenon" (Burton-Roberts 2006:179). As a result of this, some have questioned whether the parenthetical's relation to its host/proposition is syntactic. Instead, she proposes that all of the attempts to integrate parentheticals into a coherent syntax is attempting to "reconcile the fact that the appositive is contained by the host on the linear axis with the fact that it is not contained by the host on the hierarchical axis" (Burton-Roberts 2006:181).

### 3.3.1 Lack of Syntactic Attachment

In response to this apparent dilemma, there have been many proposed solutions. At one end are Safir (1986) and Haegeman (1988) with their arguments for radical syntactic orphanage (i.e. that the parentheticals are unattached at all levels and their interpretation follows from general principles of utterance processing). The next most radically non-syntactic is Peterson (1999), in which it has been put forward that there is no syntactic relationship between the two propositions at all, but rather there is a

semantic link. He has argued that this bond explains the association and the pronoun-antecedent and gap-antecedent relationships.

### 3.3.2 Attachment at New Layers of Processing

Espinal (1991) has proposed a new idea wherein a node does not have to be dominated by another to be its consitituent, but also proposed that these "disjunct consituents" are processed at a post-syntactic level anyway, rendering her first observation potentially irrelevant to the purposes of defining the syntax of PEs. Her approach involved expanding the syntactic tree into a three-dimensional space and complex syntactic structures with multiple root nodes. Safir (1986) had previously created a new abstract level of processing of logical form, LF-prime, wherein the relationship between the host clause and the parenthetical is to be made.

### 3.3.3 Attachment Somewhere within the Syntax

On the other side of the fence, others have argued that the parentheticals do, in fact, attach to the syntax tree as adjoined constituents. Ross (1973), Emonds (1973, 1976, 1979) and McCawley (1982) all agree that at the UR, the parenthetical is both sister and daughter to the root S node. The means by which they reach the SR in non-edge parenthetical positioning cases differ drastically. Ross (1973) proposes a *Slifting* analysis in which the parenthetical begins as a main clause, but whose component moves to the

left, resulting in an adjunct. Emonds (1973, 1976, 1979) has argued that a constituent of the host structure is postposed. McCawley (1982) has offered the invention of non-constituency-altering movement rules and allowing the crossing of syntactic branches.

Arnold (2007) has posited that appositive relatives are semantically independent of the clauses to which they are syntactically subordinate. Corver and Thiersch (2002) have proposed an analysis of speaker-oriented parentheticals in which they are to be treated as the structural equivalent of adverbs. D'Avis (2005) has argued for adjoining the parenthetical to the "closest phrasal projection", and for interpreting the parenthetical guided by intonation. Dehe and Kavalova (2007) wisely pointed out that "these accounts are incompatible with the observation that parentheticals and adverbials behave differently in many respects" (Dehe and Kavalova 2007: 6).

DeVries (2005) has argued for a concept which he terms *Behindance* as a "third dimension of the grammar next to dominance and precedence" (Dehe and Kavalova 2007: 6). This *Behindance* is "a local relation between nodes which is not subject to c-command and which encodes paratactic relations", which is, admittedly, perhaps able to account for the paradoxically opposed properties of PEs, namely being exempt from usual syntactic operations, yet appearing at the SR interposed in the linear string of the host clause (Dehe and Kavalova 2007:6). But then, creating another dimension allows for a great many innovative possibilites if it can be believed.

Less revolutionary is the idea of Akema and Neeleman (2004:99), which states "a parenthetical cannot affect the syntax of the host clause, but grammatical requirements imposed by the material in the parenthetical can be satisfied by elements in the host

clause"[6]. In their analysis, there is a feature matching theory called *Insertion*, which is built upon the *Inclusiveness* condition (Chomsky 1995:228, Neeleman and Van de Koot 2002, and Ackema and Neeleman 2004:99ff). In this theory, the parenthetical is inserted into a non-terminal node of the host. This proposal is intended to account for the ideas that the parentheticals (as a result of being inserted) are "invisible" to some syntactic operations that would normally apply in the host, and that parentheticals do not introduce licensing functions. It is important to note that in this analysis, the PE is "not present in the host structure, but merely related to it through matching" (Ackema and Neeleman 2004:100). Following Ackema and Neeleman (2004), Kavalova (2007) has built upon this for her analysis of *and*-parentheticals.

With a nod to Chomsky's canonical Competency vs. Performance issue, Burton-Roberts (1998) has argued for a type-token analysis of non-restrictive relative clauses by which she has proposed that, contrary to previous (and subsequent) analyses, the issue of the parenthetical's supposed intervention of a clause is not that at all. In this paper, she proposes that parentheticals do not result in a "linguistic phenomenon of discontinuity here (or anywhere)." She goes on to say:

---

[6] Ackema and Neeleman (2004) also rely heavily on data from Dutch to support their model.

"The constraint seems to be that the representation of the NRR must be, if not linearly adjacent to the representation of the antecedent of its wh-expression, then close enough to that representation to guarantee that the antecedent can be correctly identified. If this is correct, it indicates that, while English does exploit linear precedence in aid of the representation of the structure of linguistic expressions, not all constraints on linear precedence in English representations have even a representational motivation. The constraint on the linear position of the representation of NRRs seems instead to have a general cognitive (conceptual) motivation."

(Burton-Roberts 1998: 48).

*3.4 Other Proposals*

Non-orphanage approaches have also been fielded in recent years. Hand (1993) has argued that the previous approaches of considering parentheticals to be syntactically separated from the rest of the utterance (i.e. the part which bears locutionary force) is effectively regarding them "as distinct, self-standing sentences", which involves a change in syntactic embedding. Effectively, he stated that Thompson and Mulac (1991) argue for a structure for parenthetical matrixes that is distinct from typical syntactic embedding, a point against which he argues on the premise that negation is able to appear to undergo raising.

(10) a. I suppose your house isn't very old. (…, is it?)
    b. I don't suppose your house is very old. (…, is it?)

(Hand 1993: 505-506)

Personally, I remain unconvinced that those instances do involve parentheticals and am rather inclined to believe that his idea that the pragmatic analysis of a parenthetical matrix is compatible with a syntactic expression which is unchanged from

embedding, i.e. the idea that 9b is as good a structure for the parenthetical as 9c without

the change, is erroneous.

(9) a. I think it's going to rain
   b. I [think [it's going to rain]]
   c. [I think] [it's going to rain]

Potts (2002) has provided an analysis in which parenthetical as-clauses (in which

"as" is a preposition and the parenthetical structure is PP-> P, CP), which he counts as

adverbial parentheticals, simply adjoin just as one would expect any other adverbial

modifier to do[7]. He has argued that the semantic difference between these phrases which

is indicated by the "comma intonation" (Emonds 1976:11.9) means that the sequence is

syntactically separate.  On the basis of gaps/missing constituents, he posited that either a

null element or an ellipsis must be licensed to account for the expressions. He went on to

argue that if these gaps were, indeed, caused by an ellipsis, the missing information

would not be required to be in the most local appropriate phrase.

(10)      The fact that Sue read the map carefully probably means that she stayed
        on the trails. But we aren't sure whether Chuck did [V̶P̶].
        a.  [V̶P̶] = stay on the trails
        b.  [V̶P̶] = read the map carefully

(Potts 2002:627)

Parenthetical expressions, as he points out, do and must therefore include a null element

rather than an occurrence of VP ellipsis. He has supported his point with the following

examples.

---

[7] He supports his claims in this paper with examples from Dutch and Thai, but as this dissertation will focus on the parentheticals of American English, this data is not relevant and will not be explicitly discussed.

(11)    The fact that Sue read the map carefully probably means that she stayed on the trails, as did Chuck.
   a. As-clause gap = stay on the trails
   b. As-clause gap ≠ read the map carefully

(Potts 2002:627)

(12)    That space has four dimensions is widely known, as they announced
   a. As-clause gap = that space has four dimensions is widely known
   b. As-clause gap ≠ space has four dimensions

(Potts 2002:628)

VP-ellipsis is insensitive to Islands, so Potts' investigation of the grammaticality (or lack thereof) for relative clause, adjunct, subject, complex DP, and *wh*-islands strengthens the argument for a null element.Ultimately, his proposal is the following structure, (13), which makes the claims found in (14).

(13)   a. Ames was a spy, as the FBI eventually discovered
       b.
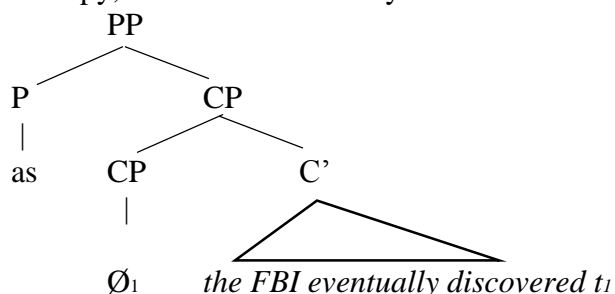


(14)   a. That as is a preposition
       b. That the extraction in its complement is of a null-operator. There is solid evidence that As-morphemes are not themselves extractees, supporting b, the more important of the two claims.

(Potts 2002: 637-628)

Unlike orphanage approaches, Potts has posited (15), resulting in the structure found in (16).

(15)    As-clauses adjoin directly to the linguistic material from which they obtain their meaning.

(16)        a. Klaus speaks, as you said, a dozen Tai languages.

b.

```
                        IP
            ┌───────────┴───────────┐
          DP1                        I'
           △              ┌──────────┴──────────┐
         Klaus            I                      VP
                          ┌──────────────────────┴──────────┐
                         VP                                  DP2
                ┌─────────┴─────────┐                         △
               VP                   PP              a dozen tai languages
          ┌─────┴─────┐              △
          t1          V'        as you said
                 ┌────┴────┐
                 V         t2
                 │
               speak
```
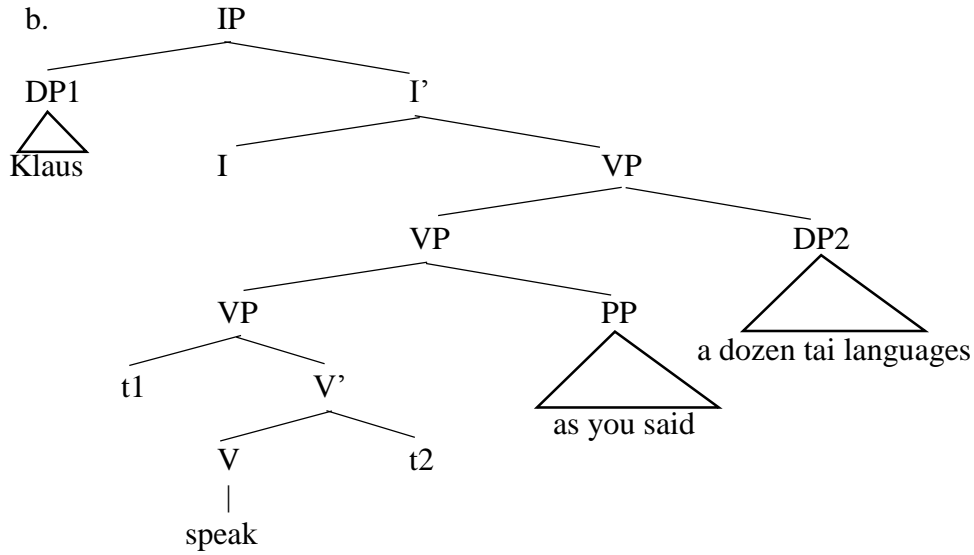
"In (57) [my (15)], the VP analyzed in terms of the VP-Internal Subject Hypothesis provides a suitable (i.e., propositional) input for the As-clause. But (57) might be regarded as suspicious, because the gap in the As-clause is in a position reserved for CPs; a VP complement to *said* is syntactically impossible….in section 3.3.1 I show that an As-clause in fact places no direct syntactic constraints on the argument that supplies the meaning of its trace/variable."

(Potts 2003:647).

Notably, Potts' treatment of As-clauses preceding embedded CPs involves the rightward movement of the *that* CP to a VP-adjoined position so that the As-clause can adjoin to VP, resulting in the structure found in (17b):

(17)     a. Alan said, as you mentioned, that cryptography is a blast.

b. [Tree diagram:

IP
- DP (Alan)
- I'
  - I [past]
  - VP
    - VP
      - VP
        - t1
        - V'
          - V | say
          - t2
      - PP (as you mentioned)
    - CP2 (that cryptography is a blast)
]
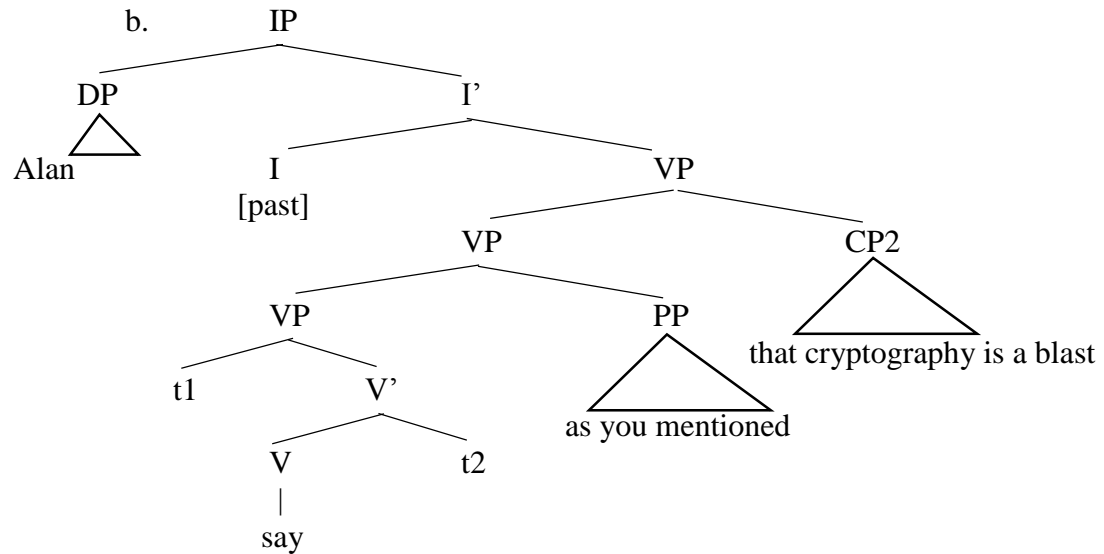
**4 This Paper**

*4.1 Organization of Parenthetical Expression Categories*

As previously mentioned in the "Defining a Parenthetical Expression" section above, for the time being, I have elected to separate the PEs that I am studying based upon their pragmatic usage. This is a decision born of the fact that PEs of the same pragmatic type can have vastly different internal syntactic structures (e.g. "it turns out" vs. "incidentally" Mitigatory PEs). Previous analyses have separated the parentheticals based on the structure: and-parentheticals (Blakemore 2005 and Kavalova 2007), as-parentheticals (Potts 2002), parenthetical verbs (Urmson 1952), non-restrictive relative clauses (Arnold 2007), appositive relatives (Emonds 1979), or-parentheticals and that is-parentheticals (Blakemore 2007). Kaltenböck (2007) has proposed a taxonomy of English

PEs primarily based upon their internal syntactic structure. While both of these previous

approaches represent valid opinions and routes to take, the primary goal of this work is to

investigate several types of PEs and uncover any patterns thereof and, from these patterns,

discover generalizations which may apply to various PEs across both syntactic and

pragmatic type boundaries. In looking at the usage over the internal form, it may be

possible to find similarities across syntactic categories that may be better represented by

pragmatic ones. Time will tell whether or not my approach at categorization proves

fruitful in this regard.


### 4.2 Limiting the Scope of Study


As previously discussed, this dissertation investigates, by way of grammaticality

judgments of native speakers, the cross-dialectally acceptable internal structures and

external distribution of four types of parenthetical expression (i.e. Vocatives, Mitigatory

PEs, Evidential PEs, Expletives) and dips a toe into the murky pool of the possibilities of

multiple of these types in the same utterance. These various objects and their positions

are examined in relation to complex structures and movement operations. All of this is

bound by the domain of American varieties of English. This choice is certainly affected

by my own native speakerhood, but it is certainly not the only basis for this decision. The

scope must be constrained at some point because this dissertation has to end somewhere.

Others have investigated PEs in other languages and yielded some generalizations on that

basis[8], but with due deference to their work in those domains, I will largely ignore them unless they are clearly pertinent to my discussion of the data and resultant analyses. These are omitted for the same reason.

While grammaticality is not a hard and fast line so much as a gradient scale, and as interesting as this may be, this work will focus on what can be proven grammatical. As it is necessary, a brief mention of what is not grammatical may occur, if only for the reason that the grammatical positions cannot be proven if they cannot be contrasted with ungrammatical ones. The grey area of inconclusive results and the scale thereof, though intellectually scintillating, is also limited in its discussion precisely because it is a rabbit hole down which there is currently neither time nor energy to explore to the full extent which it deserves. As such, this work's data may consist of data worth exploring in this way, but thorough discussions thereof will have to wait for future study. Borderline cases will be addressed only when crossing a border results in bolstering otherwise valuably conclusive data.

Essentially, this work is meant to be a report of an introductory fact-finding mission, from which patterns of parenthetical behavior may be gleaned and attention may be drawn to areas which may merit future research.

*4.3 The Syntactic Approach Adopted*

First, while many if not all of previous analyses can be applied or adapted to Minimalist Syntax, I will be using Modern Generative Syntax. I am not by any means the

---

[8] See Cinque (1999), de Vries (2003, 2007), Del Gobbo (2007), Döring (2007),  Fortmann (2007), Kiziak (2007), Schneider (2007), and Steinback (2007), all of whom have studied PEs in various languages.

first to look at the issue of parenthetical syntax. Others have attempted to determine what constraints exist on where the PE can be "interpolated", if not attached (see Emonds 1973, McCawley 1998, Peterson 1999). Others have suggested that, while these "weak spots" where the PEs may exist may be correlated with structural factors in the host, they "seem to be mainly a matter of performance and processing constraints" (Kaltenböck 2007: 43; following Espinal 1991: 753, Peterson 1999: 239). However, in my humble opinion, none of these probes have been as systemic as necessary to truly support such a blanket statement. Kavalova (2007: 166) argues "the exact place of interpolation, after all syntactic requirements are met, will be determined by the way the parenthetical influences, and relates to, the semantic and pragmatic functions of the utterance". While that is likely true, that is also true of (presumably) any other syntactic entity and does not give us a testable hypothesis or general trend of behavior to take home. By thoroughly investigating the grammaticality of parenthetical expressions in a plethora of positions with regard to "host clauses" of widely varying structures, I seek to discover and define these locations of interpolation. With these systematic observations, I attempt to provide a more complete view of where the "weak spots" actually occur in usage, and provide a summary of the patterns of their appearances in the syntax. In so doing, I explore which of the proposed theories are most supported by the data.

"Existing treatments, though differing radically in the details, agree that parentheticals require *something* nonstandard" (Potts 2002:649-650). Whether this nonstandard aspect is resigning them to their own, wholly separate domain or inserting them at a higher level, this remains true. In fact, Potts' own contribution to this area is nonstandard in how very standardly he treats PEs – as straightforward adjuncts. In some

ways, I find myself quite inclined to agree with him. I am of the opinion that, unlike "interjective hesitators" (e.g. "uh", "um"), there are patterns regarding where PEs are permitted to interpolate. It is my belief that if there are patterns, there are rules. If there are rules, they should be able to be accounted for syntactically. That being said, as many have shown, parentheticals are, at least in some respects, both syntactically and prosodically separate while integrated, at least linearly, at the same time. The issue of Schrödinger's Node is difficult to reconcile, and the truth is that none of the theories that have been presented truly seem to capture the nuance and paradox. Some ignore the evidence that suggests that PEs are syntactically integrated, others ignore the evidence which suggests that they are not. Trying to reconcile the two, others have tried to explain how PEs are both extremes by positing theories which meet in the middle. If there is a third dimension to syntax trees or if *Invisibility* is achievable or if *Behindance* is a true tenet of language or if by some strange pixie magic utterances that form in the moment of articulation know when and where parentheticals can be inserted due to some mysterious and unnamed feature matrix and insert them according to rules that do not exist, then I suppose there would be no need to read on. Sadly, no theory sufficiently accounts for what behavior has been observed to date. Sadder still, despite investigating four categories of PEs and over 42,000 speaker judgments, I don't have a magic answer to Schrödinger's Node either.

When it comes down to it, most of these solutions are similar in practice: the idea that the PE (which may or may not be traditionally attached to the tree, depending on the theory) is shoehorned into it at a higher level than Deep Structure, if at all. I am of the opinion that if copula "be" and dummy subjects can appear due to necessity, or traces can

block movements, it is not so crazy to think that parentheticals can also be both "there" and "not there". The questions are where/when does it appear in the course of utterance development and is its place truly syntactic. The former can be debated into eternity and the latter is not much clearer. The reason we find it reasonable that trace elements can be both there and not there is that they are echoes of what once has been. Parentheticals are distinctly not. If anything, they are leakages from the future – from the pragmatic stage enmeshing themselves in the world of syntax. This fact is difficult to resolve.

I have found that, while philosophically deviant from the recent ban on insertion in Syntax, the theory that best accounts for Schrödinger's Node may well be the *Insertion* model put forward by Ackema and Neeleman (2004), which rests its cap on the one-sided relationship the parenthetical has with its host clause. This relationship certainly seems to get at the heart of the "there but not there" status of PEs from the syntactic point of view, but it is not without its faults either. First, it relies on the vague concept of "feature matching"; and what feature, pray tell, does an utterance have that allows a PE in one position but not another? If some unknown feature does exist in the background, what could possibly motivate the grammatical position and PE type combinations and not the ungrammatical ones? How is a human brain processing all of these layers concurrently while vocalizing the grammatical output? Second, the PE is then not attached, but *associated* with the host clause. How does that explain the linear interpolation if syntactic interpolation is disavowed? I am perfectly willing to agree that the PE has a one-way relationship with the host clause and that it is somehow both attached and not, but the details of this proposal leave me holding onto my wallet. Furthermore, following Potts (2002), I must agree that the parentheticals must be somehow attached to the utterance

syntactically if they are to be integrated linearly – especially if they can be integrated in multiple different weak spots. In summary, while all current theories have their merits, none of them sufficiently account for the oddities of parenthetical behavior. Further, while this paper provides many new data and holds implications for theoretical accounts, no extant theory is adopted for the purposes of this work, nor is a new one presented.

### 4.4 Why Bother with CAPES?

This topic has been woefully understudied as a whole, but recent years have yielded a few notable inquiries into the subject, but not many have focused on American English. Additionally, as noted above, most probes into the opaque and paradoxical domain of PEs have been focused on one syntactically-defined type of parenthetical at a time. As such, these inquiries have not yielded much by way of generalizations to be made in terms of prevailing syntactic patterns for which an integrated analysis would be more able to account. In addition to studying such presently under-examined phenomena as forms of PEs, like Vocatives and Expletives, as well as the possibility of multiple PEs occurring grammatically in a single utterance, this work breaks new ground regarding these patterns. The data collected show patterns of behavior regarding types of parentheticals and grammatical positioning thereof relative to pragmatic category lines.

Additionally, most of these papers do not address parentheticals in reference to movements outside of specific localized issues addressed to lend support to various attachment strategies (e.g. Potts 2002 discussed movements and islands as means to argue for a null element rather than ellipsis). It is my hope that my research will assist in filling

this void by investigating a wide array of interactions with parentheticals within the confines of the American English language.

In many of the previous investigations, including the syntactically-oriented ones, the data utilized is arrived at using the Chomskian "arm-chair" linguistics model which follows the linguist's own grammaticality intuitions or cites utterances from the database of English utterances. While these sources are certainly valid, I see this as a potentially fillable gap in the research. Instead of studying parentheticals on the basis of "X has been said and is therefore grammatical", my work explicitly probes the gradient scale of grammaticality with the judgments of live native speakers serving as the data. Speakers have thus been able to give their intuitions on which utterances (featuring various parentheticals in various positions) are more or less grammatical than others and even comment as to why, shedding light on the layers of the grammaticality issue which has previously been treated as cut and dried (i.e. either simply ruled grammatical or ungrammatical with no regard to comparative grammaticality). To my knowledge and investigation, there exists no research of the kind which I undertake in this volume.

In summary, the recent works in this area are a step forward into understanding the syntax of parentheticals, but many lingering gaps remain to be plugged. My research attempts to fill several of these gaps and answer questions that have remained unanswered or even unasked to date. From a syntactic standpoint, I probe both presently unaddressed types of parentheticals and the issue of which PEs may be used in combination with one another within the utterance across all the dialects of American English represented by the subjects. I also explore the intuitions of native speakers as

they relate to grammatical parenthetical forms and positions. From this, we may yet learn to understand these better both as whole as well as in specific cases.

# 2. METHODOLOGY

## 1  Data Collection

In order to investigate the possible syntactic positions in which Parenthetical Expressions can interpolate grammatically, I have created a series of 70 surveys with a total of 20 test utterances each. Each test utterance have been presented to the survey takers in the form of an audio file. This format has eliminated some of the potential confounds that come with presenting the test utterances in print, specifically those resulting from speakers mis-assigning intonational patterns and rate of speech to intended sentences and mistakenly judging well-formedness accordingly.

Along with each audio file, the subjects have been asked to rate the acceptability of the utterance on a scale from 0 to 10 in which 0 is extremely ungrammatical and 10 is extremely grammatical. Additionally, each utterance have been assigned its own comment box for the subjects to use to express any further intuitions. In order to avoid false data due to the inability of the subjects to hear the files, the question bearing the scale also holds an option for audio file malfunctions. This effectively solved the problem of the subjects being forced to blindly enter a value for an utterance they have not heard.

Some utterances require more context than others, resulting in two or more utterances in the examined audio file. In such cases, it have been the last utterance that

have been the intended test sentence. In addition to relaying this information in the directions at the beginning of each survey containing these files, for each such file, the subjects were reminded that it have been the last speaker's speech that have been to be judged. This increases the likelihood of judgments based on the correct utterance and minimizing the confounding elements of multiple utterances.

In order to gain a reasonable sample size representative of US English speakers, these surveys were posted on Amazon's Mechanical Turk – a website allowing hundreds of thousands to complete or request the completion of Human Intelligence Tasks or "HIT"s. The subjects enabled to take the surveys were limited to those located in the US (in order to limit the focus of this project to US English as studying Parenthetical Expression usages in all forms of English around the world would be too large an undertaking at this point) and those who possessed an approval rating of 95% or higher. This helps to limit the survey takers to those who have historically taken such tasks seriously, but is not a flawless application either. To further bolster the likelihood of avoiding spurious data from un-invested subjects, partway through the research, I began using only "master workers". Master workers are Amazon's pre-screened participants who have been shown to have high approval ratings across different HIT types over time by Mechanical Turk's in house statistical monitoring. Essentially, this is another level of screening – people who have a longer and richer history of high performance.

Fortunately, the website hosting the survey and compiling the data, SurveyGizmo.com, also had a "GEO ID" feature, enabling the website to determine the location of the subjects at the time they took the survey(s). This was useful in weeding out potentially spurious data that may has otherwise gone through to the analysis stage.

Subjects whose locations were not in the United States at the time of the survey have been paid for their time, but their data have been removed. The subjects have each be paid $0.50 per survey for their time. For each survey, there were at least 30 subjects, resulting in over 42,000 speaker judgments.

The surveys have been made available to Americans across the country and, as such, has had representatives of dialects near and far. This was intentional. Each subject was asked to self-identify his or her dialect by answering a few key questions, namely the locations in which they grew up, live at the time of the survey's completion, and where they believe others speak the same way as they do. As there is no way to predict from whence the subjects have come or the dialects with which they associate, I cannot ensure that all dialects of American English have been represented. However, this methodology was able to yield a diverse set of subjects representing a wide range of geographic dialects. Where patterns emerge which may be based on dialect variation, the matter was discussed, but this work is not meant to be a detailed grammar of the rules regarding Parenthetical Expressions for each represented dialect of American English. Instead, this dissertation primarily focuses on what is deemed universally acceptable across all these dialects.

## 2 Determining Grammaticality and Statistical Significance

The truth is, as with most things involving humans, there is not so much a black and white cutoff for grammaticality, but rather a grey scale of relatives. For this reason, I implemented a scale from 0 to 10 as opposed to a 1 to 5 scale using common social research labels like "I agree this is grammatical" or even "I would say this". This scale has proven

useful as it allows subjects to convey their intuitions more clearly – for example, a difference between a 9.8 and a 7.2 can yield the inference that, while both are grammatical, one structure is preferred to another.

The data have been analyzed by calculating the average rating for each sentence. These averages have been rounded to the nearest tenth. Drawing dividing lines on the grammaticality scale is not only difficult and arguably illusory, but must inherently be arbitrary on some level. If lines must be drawn, the locations thereof are difficult to determine. Surely a 9.9 is grammatical and a 0.8 is ungrammatical, but a 5.5 is less conclusive. Ultimately, no matter how difficult to draw lines on a nebulous scale, one has to start somewhere. Towards that end, any average of 7.0 or above (a "passing" grade by American educational standards and a likely benchmark in the minds of the subjects) was categorized as grammatical whereas those ranking lower than 5.0 have been classified as ungrammatical. The utterances with averages between 5.0 and 7.0 have been determined to be inconclusive.

However, statistically significant differences even within these categories have been probed and explicitly dealt with (e.g. if two similar utterances are both grammatical but one is judged significantly more so than another, this have been investigated). Similarly, data crossing borders of inconclusivity are tested further (e.g. if one utterance is judged grammatical but a similar one is inconclusive, this has also been investigated). Statistically significant differences have been determined using the T-test with a 95% confidence interval using the following formula:

(1) The T-Test Formula

$$t = \frac{\bar{\bar{x}}_1 - \bar{\bar{x}}_2}{\sqrt{\frac{s_1{}^2}{n_1} + \frac{s_2{}^2}{n_2}}}$$

In the T-Test formula, X1 is the mean for the first utterance and X2 is the mean for the second. S1 is the standard deviation for the first utterance and S2 is the standard deviation for the second. Similarly, N1 and N2 are the number of respondents/subjects for the corresponding utterance. The alpha level, in keeping with social research standards, was set to 0.05, resulting in a 95% confidence interval.

**3 Software and Programs Used**

In the course of data analysis, Survey Gizmo, the host website for my surveys, provided not only hosting services, but also reporting and data analysis. Reports were generated using basic features such as determining the average, standard deviation, and participant number for each utterance, and segmentation reports enabled the data to be analyzed as it correlated with demographic information (e.g. age, gender, etc.). When prosodic elements required examination, Praat was used. The program allows the user to mark pitch in the spectrogram portion of the image to illustrate intonational properties.

# 3. VOCATIVES

## 1.  Introduction

When speaking, there are ways to explicitly narrow the field of potential intended hearers and address said intended hearer(s) directly. One such method is the use of a Vocative.  An example of such an object follows:

(1) Where should I put the groceries, Sarah?

Vocatives are often proper names, but there are a variety of possible addresses from titles, kinship terms, and even insults – as long as they are DPs – as shown in (2).

(2)  a. How do you respond to these criticisms, Mr. President?
     b. What time is the recital, Mom?
     c. What should we do, guys?
     d. You ran over my bike, jerk!

This chapter will present the collected data and analyses thereof, as well as discuss not only the different possible internal structures of Vocative DPs, but also grammatical points of interpolation within the host clause. Which of these points of interpolation are grammatical will certainly vary from dialect to dialect. Ideally, a survey of all possible dialects of American English would be used in order to provide a truly comprehensive understanding of this point, but such an investigation will have to be

reserved for future research. This work focuses on investigating what DP structures may be Vocative DPs, where these Vocatives DPs may occur across varieties of English, what the cause of inconclusive judgments concerning examples may be, the Vocative DPs' interactions with movements, and, more generally, where the Vocatives may fit into larger syntactic structures within the bounds of American English[1]. Rather than giving a truly exhaustive list of where objects may not interpolate, this work will focus on where they are permitted across all of the dialects of American English surveyed in this work.

## 2. Vocative DP Internal Structure

### 2.1 DP Structure

There is a great deal of variation available in the DP structure. A few examples of these can be found below:

(3) a. The cat is sleeping.
    b. The little grey cat is sleeping.
    c. The cat who ate your fish is sleeping.
    d. The cat with stripes is sleeping.
    e. Mary is sleeping.
    f. The Mary from Australia is sleeping.[2]

Although we know that these types of structures are possible as DPs, not all of these are equally valid as Vocatives. To investigate this issue, test sentences were created

---

[1] The Vocative particle "hey" was also initially investigated, but was abandoned due to time constraints. The data for these utterances can be found in Surveys 4 and 5.

[2] It may be worth noting here that (3f) is an unconventional structure and may not be considered grammatical in every dialect. However, as the data will show in Section 2.1.2, this is a possible structure given the appropriate context and thus it is acknowledged here.

to probe each of these types of structures. The object I am calling a "Simple DP" can be made up of items such as proper names, titles, and pronouns without complements or adjuncts (i.e. "you" constitutes a Simple DP, but "you in the back" does not). Those referred to as "DA*N" structures are those with a determiner, which may or may not be a pronoun, one or more optional adjectives, and a noun (e.g. "the tall guy" or "you sly dog"). "DP with PP" structures are DPs which have PP adjuncts (e.g. "you in the back" or "the guy with the guitar"). The last tested object is referred to as "DP with CP". This object is a DP with a relative clause found in such non-vocative expressions as those in (4):

(4) a. She who laughs last laughs best.
    b. He who lives by the sword dies by the sword.

The investigated potential Vocative structures, simple DP, DA*N, DP with PP, and DP with CP, are *almost* all attested in at least one position.

(5) *Vocative DP Structures*

| | |
|---|---|
| S1.8[3] You stupid jerk, you stole my coffee! | Average: 9.7 |
| S1.16 Sarah, I need the stapler. | Average: 9.9 |
| S1.20 You in the back, please shut the door. | Average: 9.0 |

However, results regarding DP with CP are often inconclusive in terms of a country-wide analysis, though it seems to be possible, if archaic, in certain dialects[4].

---

[3] This notation refers to the Survey and utterance number as listed in the appendix (e.g. S1.8 is Survey 1, Utterance 8.

[4] Dialect variation may be investigated further in future work, but will only be briefly touched upon when relevant here.

*(5) DP with CP Vocatives*

| | |
|---|---|
| S1.13 She who has no social life, get in the car. | Average: 6.2 |
| S1.14 Stop complaining, she who has no problems. | Average: 6.2 |
| S1.15 You who are sick of tax hikes, come to the protest! | Average: 6.5 |
| S1.16 Come to the meeting, you who want free food. | Average: 5.2 |
| S4.18 Welcome to the homeless shelter. You who are hungry, form a line by the kitchen, but you who need shelter, sign in at the front desk.[5] | Average: 7.7 |
| S10.10 You who need encouragement, buy my new book. | Average: 5.8 |

For these structures, the values given were extremely variable. At this point, investigating the comments sections for each utterance became useful.

(i)       S1.13 She who has no social life, get in the car.            Average: 6.2

Comments:

    a.  I like talking to people like this!
    b.  Oddly phrased, but I think it's still acceptable.
    c.  Person is mentioned first but feels somewhat unsmooth
    d.  weird but if two people know each other well it could be natural more or less

(ii)      S1.14 Stop complaining, she who has no problems.            Average: 6.2

Comments:

    a.  Oddly phrased, but still acceptable.
    b.  Structure does not sound good, person should be mentioned first
    c.  It sounds weird in the middle of the sentence

---

[5] In the cases in which there is more than one utterance heard in the audio file, subjects were explicitly instructed to rate the second sentence, not the first.

(iii) S1.15 You who are sick of tax hikes, come to the protest!          Average: 6.5

Comments:

      a.   Oddly phrased, but I think it is acceptable depending on the context
      b.   The structure feels wrong, some more parts need to be added
      c.   this just sounds stupid

(iv) S1.16 Come to the meeting, you who want free food.          Average: 5.2

Comments:

      a.   I thought this was a very good paranthetical [sic] sentence.
      b.   Oddly phrased, but still acceptable.
      c.   Person should be mentioned first

(v) S4.18 Welcome to the homeless shelter. You who are          Average: 7.7
hungry, form a line by the kitchen, but you who need shelter,
sign in at the front desk.

Comments:

      a.   Ok, weird structure.

(vi) S10.10 You who need encouragement, buy my new book.          Average: 5.8

Comments:

      a.   Odd sentence structure
      b.   not a good ad

While the data here is predominantly inconclusive, the statistically significant higher rate of acceptability of S4.18 is notable, suggesting that this structure is indeed possible in some circumstances, if unusual. Further, the acceptability ratings may average out to an inconclusive number for the rest of these forms, but the grammaticality judgments themselves have been found to be quite variable. Given this, it follows that the variability may reflect dialect variation. The following chart tracks the responses of

individual subjects to the utterances in S1.13, and S1.14, denoting the regions that may

relate to their dialects.

*(vii)      Subject Ratings and Self-identified Dialect Regions*

| State Grown Up | Self-identified Dialect region | S1.13 | S1.14 |
|---|---|---|---|
| California | USA | 4 | 6 |
| CA | CA | 8 | 5 |
| CA | Midwest | 7 | 8 |
| … | CA | 10 | 9 |
| CA | Southern CA | 6 | 8 |
| CA | CA | 5 | 3 |
| Maryland | New England | 4 | 8 |
| Maryland | "No" | 3 | 3 |
| Maryland | MA | 3 | 3 |
| New York | Florida | 1 | 10 |
| New York | New York | 0 | 0 |
| NY | NY | 4 | 5 |
| NY | NY | 10 | 10 |
| PA | PA | 10 | 7 |
| PA | PA | 6 | 8 |
| Florida | "Yes" | 8 | 7 |
| FL | FL | 0 | 0 |
| RI | RI | 0 | 4 |
| RI | RI | 6 | 6 |
| MO | MO | 10 | 8 |
| North Carolina | North Carolina | 0 | 6 |
| Michigan | Michigan | 9 | 7 |
| MI | MI | 3 | 6 |
| Wisconsin | US | 7 | 9 |
| KY | KY | 0 | 0 |
| OH | OH | 2 | 6 |
| AZ | AZ | 3 | 6 |
| Texas | North Texas | 9 | 9 |
| Hawaii | Honolulu County | 5 | 4 |

Given the diversity of responses from subjects from the same states, a more

thorough investigation would be required to definitively determine whether dialect

variation plays a significant role. It is possible that metropolitan and rural areas may bear

distinctions, but as the data stands, these patterns, if they can so be called, do not reflect any dialect divisions of which I am aware.

The fact that these structures are judged well-formed in at least some dialects seems to confirm them as Vocative DP structures which are possible in principle, if not always in practice[6]. The other aforementioned types of DP structures are all attested as grammatical in at least one position.

## 2.2 The Role of Determiners and Proper Names

When discussing a DP, regardless of its use, the DP vs. NP debate must be addressed, if only briefly. For the purposes of this paper, the DP model has been assumed and even supported by the data. It has been posited by previous analyses of proper names, such as the one put forth by Hankamer and Mikkelsen (2008), that the proper name is a determiner and originates in this position. This does account for the pattern attested in many if not the majority of utterances involving proper names:

(4) a. Mary is a singer.
    b. *The Mary is a singer.

However, this simple observation does not account for all the variations in DP structures accessible to speakers. While the proper names, like pronouns, can stand alone as seen in (4a), there are also exceptions. These exceptions require the right context, but they are widely attested as grammatical as can be seen in the last utterances in (6) – (8).

---

[6] While the possibility of dialect variation is a potentially interesting variable, a survey of dialects is not the focus of this work. Rather, I am focusing on what is categorically allowed, which the DP with CP object is distinctly not. For this reason, the issue will not be explored further in the present work.

(5) The Mary from Scotland likes Thai food.

(6) A: Bill, please step forward to receive your reward.
    B: Which Bill do you mean? There are three.
    A: I mean the Bill in the sweater.

(7) A: I need to ask Mary about it.
    B: Which Mary?
    A: I mean the Mary in Human Resources.

(8) A: Susan would know.
    B: Which Susan?
    A: The Susan in the sales department handles these things.


The fact that such a thing is possible, even if only in rare instances, goes against the analyses of proper names originating as determiners. Guiseppe Longobardi, in his 1994 paper, "Reference and Proper Names", proposed a theory of N to D movement which accounts for this phenomenon fairly well (Longobardi 1994:652). Specifically it explains how sentences like (4a) can be grammatical with a proper name as the only object in the DP, but it also explains how (6) - (8) are grammatical. If proper names are originally Ns rather than Ds, they may, given certain contextual constraints, take a D such as "the" as in (6) - (8). When no D is allowed/present, the proper name moves from its N position to D, becoming a licensed DP by itself.

To test this issue, a sample utterance, S1.19, was created. As the context bears weight on the acceptability of the sentence, the utterance was presented in the format of a conversation. The tested sentence is the last utterance, a fact which was made explicit to subjects. The fact that this utterance was judged to be grammatical indicates that this is, in fact, a potentially acceptable structure for Vocatives, albeit with some contextual assistance.

(9) S1.19   A: Ted, please come to Human Resources                    Average: 8.7
                         after the meeting.
                   B: Which Ted do you mean? There are three in this office.
                   A: The Ted from accounting, please come to H.R. after the
                         meeting.
    Comments:

         a.   Conversation made sense, understandable
         b.   Ok.


    The grammaticality of these structures shows that the unusual structure of the

proper name preceded by a determiner is a possible structure not only as a DP, but as a

Vocative DP. Given this, I posit the following structure for DPs with proper names:


    (10)          a. Simple Proper Name

```
                DP
                |
                D'
               / \
             D      NP
           Katie     |
                     N'
                     |
                     N
                   Katie
```
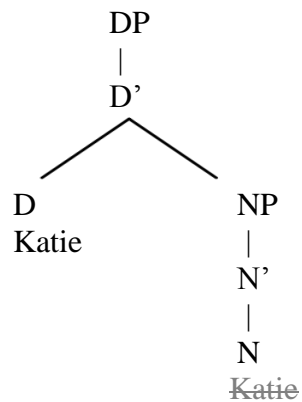
b. Proper Name with Determiner and DA*N Structure

```
                    DP
                    |
                    D'
                 ／    ＼
             D            NP
            the            ＼
                            N'
                         ／    ＼
                     AP            NP
                     |             |
                     A             N'
                  brunette         |
                                   N
                                 Katie
```
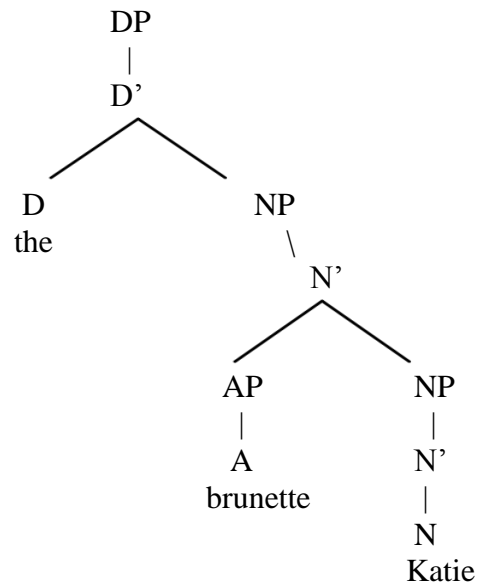
c. Proper Name with Determiner and DP with PP Structure

```
              DP
              |
              D'
           ／    ＼
       D            NP
      the         ／    ＼
              NP            PP
              |             |
              N'            P'
              |          ／    ＼
              N        P            DP
            Katie     in            |
                                    D'
                                 ／    ＼
                             D            NP
                            the            |
                                           N'
                                           |
                                           N
                                          back
```
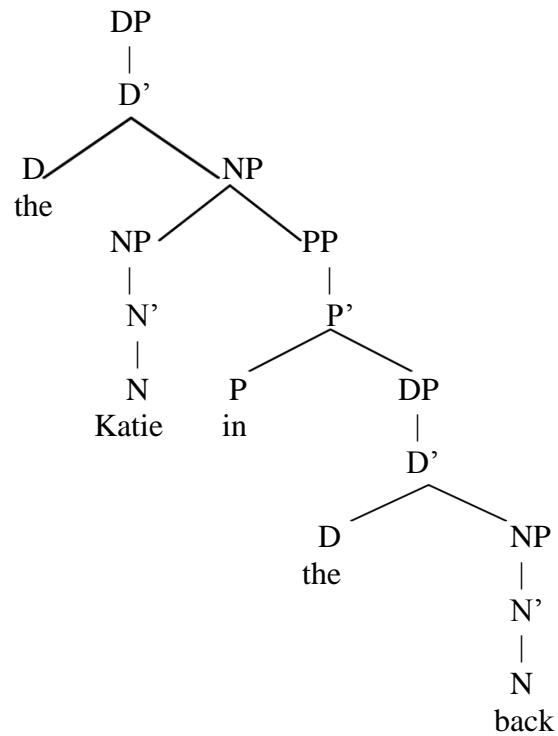
*2.3 Positional Acceptance Based upon DP Structure*

Even though the data have established that there are multiple types of Vocatives, not all Vocatives appear to be created equal. Some appear to be more or less acceptable at varying positions within the larger syntactic structure than others. For example, DP with PP seems to favor the left edge over the right to a statistically significant degree:

*(11)        DP with PP*

S1.20 You in the back, please shut the door.                    Average: 9.0
S9.15 You in the front, who are you?                            Average: 8.8
S1.18 I have your assignment, Anna with two 'n's.              Average: 7.0
S1.7 You forgot your change, guy in the motorcycle jacket.     Average: 7.1

This imbalance makes intuitive sense as these structures are intended to specify an intended hearer with whom the speaker is unfamiliar or one who the speaker wishes to distinguish from other potential hearers with similar identifiers (e.g. Anna rather than Ana). In such cases, the purpose of the Vocative is not only to specify the hearer, but garner his/her attention. Thus, these structures are generally most appropriate at the beginning of an utterance than at the end of one. However, that does not mean they do not garner acceptability in other positions, as the data will show in Section 3.

## 3.  Distribution of Vocative DPs within Simple Structures

*3.1 There are Rules*

Given the nature of this work, it is reasonable to take a moment to show why studying the grammatical locations of interpolation – the fact that one cannot simply shove a PE anywhere one wishes. To this end, syntax trees follow which will show several positions which are categorically unacceptable and list the numbers for the utterances providing the data.

(12)        Unacceptable Positions

a.



---
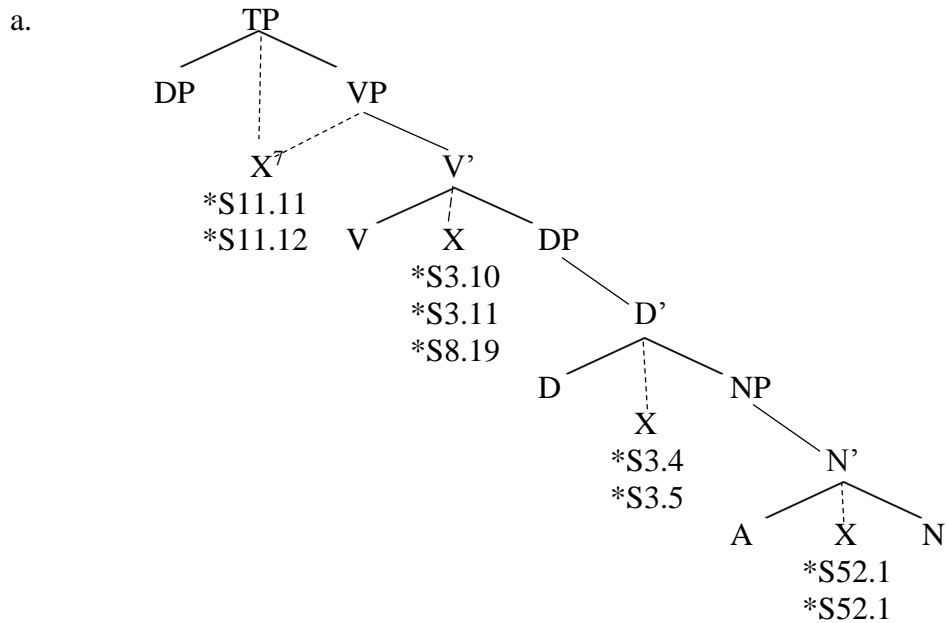
[7] Here, it is useful to note that the dashed lines are used to indicate the position of the Vocative DP relative to other syntactic items. In many of these cases, it is not clear whether the DP right-adjoins to the preceding item or left-adjoins to the one following it. For this reason, dashed lines are used.

b.

```
                    TP
          ┌─────────┆──────────┐
        DP          X                    VP
                  *S2.20        ┌────────┆───────────┐
                  *S8.20      AUX        X                    V'
                                       *S8.9      ┌──────┆──────┐
                                       *S8.10   AUX       X        V
                                                        *S8.6
                                                        *S8.8
```

c.

```
                    TP
          ┌─────────┆──────────┐
        TP       COORD         X        TP
                            *S11.10
                            *S6.10
                            *S4.5[8], *S4.6[9]
                            * S9.1[10], ~S9.2[11],
                            *S8.15[12]
```

---
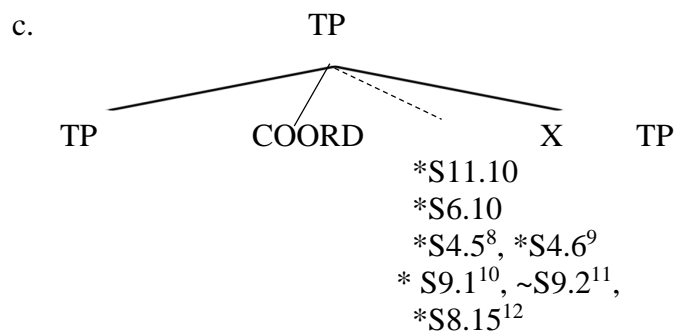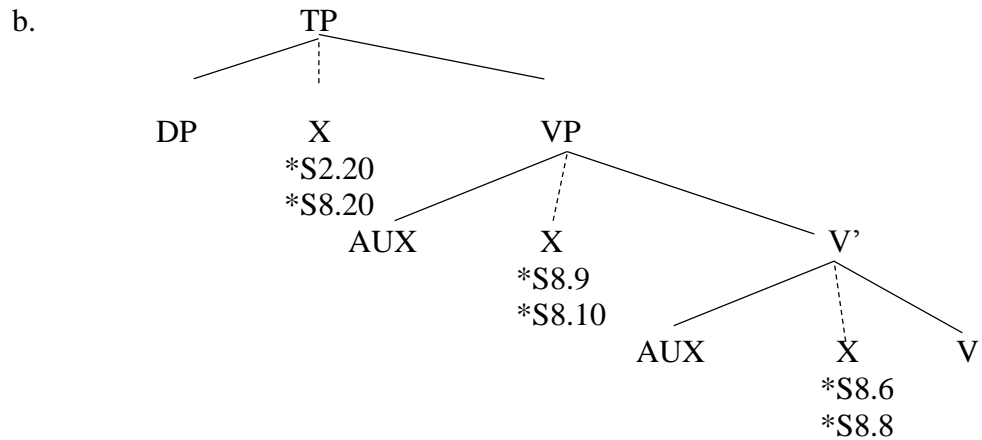
[8] This utterance also has confounds of Contrastive Topicalization and intonation.

[9] This utterance also has confounds of Contrastive Topicalization and intonation.

[10] This utterance also has confound of Contrastive Topicalization and intonation.

[11] While S9.2 is inconclusive with a rate of 6.5, it is identical to the ungrammatical S9.1 in all ways but intonation.

[12] This utterance also has a possible confound of intonation – emphasis on Vocative DP.

d.

TP

DP          VP
              |
             V'

V          CP

C'

C          X          TP
         *S5.16
         *S5.19    DP    ~X      T'
         *S8.8[13]        *S5.10
                          ~S5.17
                          S5.18[14]
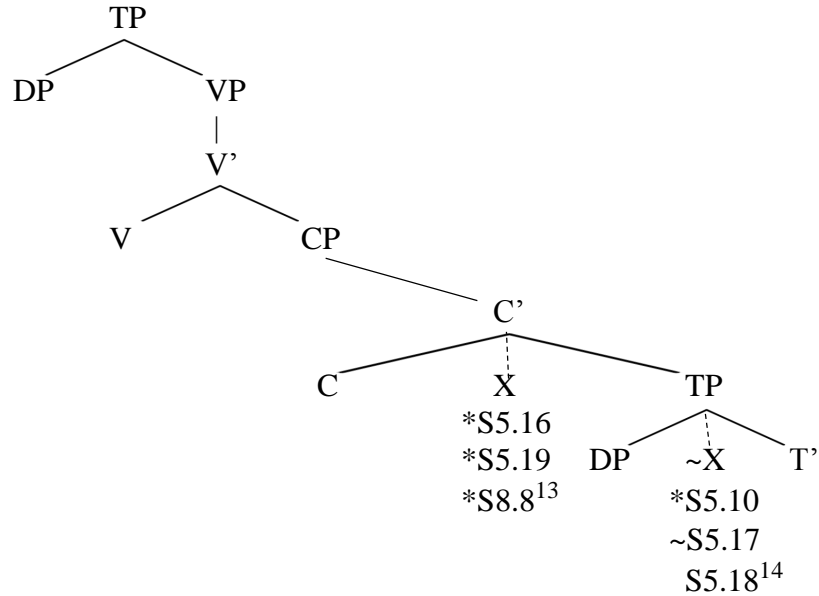
*3.2 Basic Structural Positions*


*3.2.1   The Edges*


Barring the controversial DP with CP Vocative structures, the left and right edges

are nearly universally acceptable locations for Vocatives. A few examples of the plethora

of data confirming this follow:


*(13)*      *Acceptable Locations*


        *a. Left Edge*

S1.8 You stupid jerk, you stole my coffee!                        Average: 9.7
S1.11 You liar, I demand a refund.                               Average: 8.9
S1.16 Sarah, I need the stapler.                                 Average: 9.9

---

[13] This utterance also has confound of a Dummy Subject..
[14] This utterance also may have confound related to intonation, but the difference between 5.17
and 5.18 is insignificant – 6.9 and 7.0.

### b. Right Edge

| | |
|---|---|
| S1.9 You got her phone number, you sly dog. | Average: 9.1 |
| S1.10 I want my money back, you cheater. | Average: 9.7 |
| S1.17 I am getting sick of missing the memos, Peter. | Average: 9.7 |

### c. After the First Subject

| | | |
|---|---|---|
| S2.16 | A: What on Earth is that hideous thing?! | Average: 9.0 |
| | B: That, Jill, is my husband | |
| S3.15 The quarterhorse, sir, is running well, but the thoroughbred is not. | | Average: 8.5 |
| S4.9 The tickets, Mary, I won on the radio, the airfare I paid myself. | | Average: 7.7 |

In most cases, as long as the subject is a relatively simple DP, a Vocative generally may follow the first (i.e. the highest) subject in an utterance. It is of interest to note that this is not the case where Dummy Subjects are involved, as discussed in Section 4.3. Another possible exception to this trend is the case in which the first subject is a second person pronoun. However, S6.17 and S2.2 provide statistically significant possible counter examples to this otherwise clear exception.

| | | |
|---|---|---|
| (1) | S2.11 You, sir, are intolerable. | Average: 9.1 |
| (2) | S6.16 You, Fred, need to get off this couch and find a job. | Average: 8.4 |

Comments:

a. Not the best way to say it, but totally understandable.
b. That one sounds like a line written for a TV show. Still very acceptable.
c. The placement of Fred is different, but it just points out how mad she is. So it's acceptable.
d. None[15]

---

[15] Some subjects mistakenly believed that the Comments sections of the questions were mandatory. As such, there have been several comments which take the form of "none" or "no".

(3)      S6.17 You, Kaitlin, hate nightclubs and you love the                Average: 6.9
                carnival.

Comments:

    a.  "Caitlin" would fit better at the beginning of the sentence.
    b.  I don't know any one [sic] who speaks like that.
    c.  It's an odd sentence, but it makes sense.
    d.  Poor structure.
    e.  None
    f.  It seems odd for one person to tell a second person what the second
       person's feelings should be. But otherwise it's a natural sentence.

(4)      S2.2 You, Bob, know that I hate fish.                              Average: 5.2

Unfortunately, none of the subjects gave comments for S2.2 or S2.11, so further comparison between these and the comments of similar structures as those above is presently unavailable.

The only other possible exceptions are the following cases in which there is the additional confound of the auxiliary chain. One of these, S8.20, also presents with another potential issue – it is possible that the subjects parsed the sentence with the meaning that the cat's name was "Tom" rather than "Tom" being the Vocative as intended.

(5) S8. 20 The cat, Tom, may be eating your goldfish.                       Average: 5.9

Comments:

    a.  Is the cat named Tom?
    b.  OK

(6) S56.6 He, Katie, could have been a famous actor.                        Average: 5.6

I am left, then, to conclude that the Vocative may follow the first subject if that first subject is a second person pronoun. It makes intuitive sense that the Vocative could follow "you", as it could be taken as further specifying the intended hearer as the subject and vice versa. Other referring expressions such as other pronouns, dummy subjects, and proper names may meet with more difficulty. It is possible that these other subjects present a stumbling block for processing the adjacent Vocative, resulting in an inconclusive and confused attempt at processing the utterance. This, however, is speculation to be confirmed by future research.

### 3.2.2   Before an Embedded CP

The data show that Vocatives can appear before the Complementizer of an embedded CP if it is overt. If the C has been deleted, the data becomes less clear.

(7)     *Before the Complementizer of an Embedded CP*

　　　　a.  *Overt C*

　　　　　　i.  *That*

| | |
|---|---|
| S2.15 You know, Bob, that I hate baseball. | Average: 7.1 |
| S3.6 You can't pretend, Bob, that you have the qualifications. | Average: 9.2 |
| S3.10 There is a chance, Sarah, that you might win the contest. | Average: 9.1 |
| S5.14 She was hoping, Mary, that you would agree with her. | Average: 8.2 |

　　　　　　ii.  *For*

| | |
|---|---|
| S5.13 She was hoping, Jane, for you to agree with her. | Average: 6.6 |
| S53.7 He was hoping, Karen, for you to like the song he wrote. | Average: 6.9 |

*iii.  Deleted C*

| | |
|---|---|
| S5.20 It was clear, Kaitlin, you were after his job. | Average: 8.1 |
| S2.16 Bill expected, Mary, you would disagree. | Average: 4.5 |
| S2.16 You can't claim, Bob, you have the necessary work experience. | Average: 5.4 |
| S53.12 He was hoping, apparently, Karen to like the song he wrote. | Average: 5.3 |
| S56.4 I am not sure, Fred, she liked your song. | Average: 5.8 |

While in most cases, following an omitted Complementizer is ungrammatical, S5.20 provides a counterexample. This, however, can be explained away on the grounds of its other element – CP Subject formation. If the Vocative, rather than left-adjoining above the omitted C, is right-adjoining to the subject (in this case the CP "it was clear"), then this is not an exception to the inability to precede an omitted Complementizer, but rather an example of the ability of the Vocative to follow a CP Subject. This position will be further discussed in Section 4.4.

# 4   Interactions with Complex Structures and Movement Processes

*4.1 Embedded Clauses*

In the case of embedded clauses, the general trends remain true – the left and right edges are acceptable interpolation points. The position following the subject of the embedded clause is largely inconclusive. The position after the Complementizer ranges from ungrammatical to inconclusive. Appearing before the Complementizer[16], also shows variability, except in the case of a CP headed by "because".

---

[16] Preceding the Complementizer of an embedded CP is also a left edge, so this position has an inherently higher likelihood of being possible.

(8)    *Embedded Clause Positions*

      a.  *Left Edge*

S7.7 Karen, he's being arrested because he punched the policeman.    Average: 9.6
S53.3 Erin, I heard that your sister is in Europe.    Average: 9.6

      b.  *Right Edge*

S7.8 He's being arrested because he punched the policeman, Karen.    Average: 8.7
S53.4 I heard that your sister is in Europe, Erin.    Average: 8.9

      c.  *Following the Embedded Subject*

S5.12 He wanted for <u>you</u>, Mary, to give him your number.    Average: 6.7
S5.17 Bill expected you, Mary, to disagree.    Average: 6.9
S5.18 Bill <u>expected</u> for you, Mary, to disagree.    Average: 7.0
S5.10 The boss found out that she, Bill, was stealing supplies.    Average: 4.6[17]
S5.11 It is clear that you, Susan, need a haircut.    Average: 7.5
S11.4 I saw you, you arrogant jerk, steal her wallet!    Average: 5.3

      d.  *After First Subject*

S53.5 I, Fred, saw your cousin painting his house purple.    Average: 5.0
S53.6 Karen, Fred, heard that you wrote a song about her.    Average: 3.4

      e.  *Before C*

          i.  *Overt C*

              1.  *'For' C*

S5.13 She was hoping, Jane, for you to agree with her.    Average: 6.6
S53.7 He was hoping, Karen, for you to like the song he wrote.    Average: 6.9

              2.  *'That' C*

S5.14 She was hoping, Mary, that you would agree with her.    Average: 8.2
S2.15 You know, Bob, that I hate baseball.    Average: 7.1
S3.6 You can't pretend, Bob, that you have the qualifications.    Average: 9.2

---

[17] It is possible that there is a confound of intonation and verbal word spacing in this test utterance. Some subjects heard "shebill" rather than "she, Bill,".

### 3. 'Because' C

| | |
|---|---|
| S2.14 A: Why did he get fired? | Average: 8.5 |
| B: He got fired, Kim, because he was embezzling funds. | |
| S7.10 You lost your job, unlucky girl, because your boss thought you were stealing things | Average: 7.0 |
| S2.4 A: Why is this happening? | Average: 9.1 |
| B: This is happening, Mary, because you skipped out on bail. | |
| S7.6 He's being arrested, Karen, because he punched the policeman. | Average: 9.0 |
| S11.15 I know that he's generous, Mary, because I saw him donate money to the homeless shelter. | Average: 9.4 |

The only cases in which preceding "because" is not clearly grammatical occur when the Vocative in question is a more complicated one, such as the DP with PP in S11.17. It has been noted previously that these types of Vocatives are generally found to be more grammatical at the edges, preferably the left one, and can be inconclusive elsewhere. The other cases also involve either DP with PP, DA*N, or the even more difficult DP with CP structures. Even so, several of these are still found to be grammatical:

| | |
|---|---|
| S7.9 You lost your job, she who always gets the blame, because your boss thought you were stealing things. | Average: 5.4 |
| S7.10 You lost your job, unlucky girl, because your boss thought you were stealing things. | Average: 7.0 |
| S7.11 You lost your job, girl with terrible luck, because your boss thought you were stealing things. | Average: 7.6 |
| S11.17 You shouldn't protest here, you with the sign, because no one will notice you. | Average: 4.9 |
| S11.18 I know he's generous, you untrusting jerk, because I saw him donate money to the homeless shelter. | Average: 7.2 |

### i. Deleted C

| | |
|---|---|
| S5.20 It was clear, Kaitlin, you were after his job. | Average: 8.1 |
| S5.16 Bill expected, Mary, you would disagree. | Average: 4.5 |
| S2.16 You can't claim, Bob, you have the necessary work experience. | Average: 5.4 |
| S53.12 He was hoping, apparently, Karen you to like the song he wrote. | Average: 5.3 |

### b. After C

| | |
|---|---|
| S5.19 Bill expected for, Mary, you to disagree. | Average: 3.2 |
| S5.15 She was wondering if, Mary, you would agree with her. | Average: 5.4 |
| S3.7 You can't say that, Susan, you worked somewhere you didn't. | Average: 5.5 |
| S56.5 He was hoping for, Karen, you to like the song. | Average: 4.0 |

## 4.2 Contrastive Topicalization

Even when Contrastive Topicalization occurs, the previously established norms of Vocative position hold true. The left and right edges are acceptable, as is the position directly after the first subject, in this case the first fronted DP. All other positions remain either unacceptable or inconclusive as shown by the following data.

(9)        *Contrastive Topicalization*

*a. Left Edge*

| | |
|---|---|
| S3.19 Amanda, the fishing pole, I sold at the garage sale, but your vase, I kept. | Average: 8.2 |
| S4.8 Welcome to the homeless shelter. You who are hungry, form a line by the kitchen, but you who need shelter, sign in at the front desk. | Average: 7.7 |
| S9.4 Mary, the cake I bought at the bakery, but the pie I made myself. | Average: 8.0 |

### b. Right Edge

| | |
|---|---|
| S3.18 The fishing pole, I sold at the garage sale, but your vase I kept, Amanda. | Average: 8.7 |
| S3.20 The fishing pole, I sold at the garage sale, but I kept your vase, Amanda. | Average: 8.8 |
| S9.3 The cake, I bought at the bakery, but the pie I made myself, Mary. | Average: 8.2 |

### c. After First Subject

| | |
|---|---|
| S3.15 The quarterhorse, sir, is running well, but the thoroughbred is not. | Average: 8.5 |
| S4.9 The tickets, Mary, I won on the radio, the airfare I paid myself. | Average: 7.7 |

### d. After Second Subject

| | |
|---|---|
| S3.17 The book, I bought for you, but the movie, Karen, I bought for myself. | Average: 8.1 |
| S9.7 The cake, I bought at the bakery, but the pie, Mary, I made myself. | Average: 6.7 |
| S56.3 Your dog, I love, but your cat, Fred, I can't stand. | Average: 7.0 |

### e. Before Coordinator

| | |
|---|---|
| S3.16 The book, I bought for you, Karen, but the movie, I bought for myself. | Average: 8.4 |
| S4.7 The tickets, I won on the radio, Mary, but the airfare I paid myself. | Average: 8.1 |
| S4.10 The tickets, I won on the radio, Mary, and the airfare I paid myself. | Average: 8.1 |

### f. After Coordinator

| | |
|---|---|
| S4.5 The tickets, I won on the radio, <u>and</u>, Mary, the airfare I paid myself. | Average: 4.5 |
| S9.2 The cake, I bought at the bakery, <u>but</u>, Mary, the pie I made myself. | Average: 6.5 |
| S4.6 The tickets, I won on the radio, and, <u>Mary</u>, I paid the airfare myself. | Average: 7.1 |
| S9.1 The cake, I bought at the bakery, but, <u>Mary</u>, the pie I made myself. | Average: 4.5 |

The T-Test shows that the differences between S4.5 and S4.6 and between S9.1 and S9.2 are significant, but the difference between S9.2 and S4.6 is not. Further investigation shows that the prosody, surprisingly does not underlie the difference between the grammatical S9.2 and S4.6 and the ungrammatical S4.5 and S9.1. While different intonational patterns are employed, the relative grammaticality of these forms do not correlate with these differences. Specifically, while the grammatical S4.6 emphasizes the Vocative, S9.2 (which has proven statistically indistinct from the grammatical score of S4.6) has the emphasis on the verb rather than the Vocative.

(i)  S4.5 The tickets, I won on the radio, <u>and</u>, Mary, the      Average: 4.5
        airfare I paid myself.
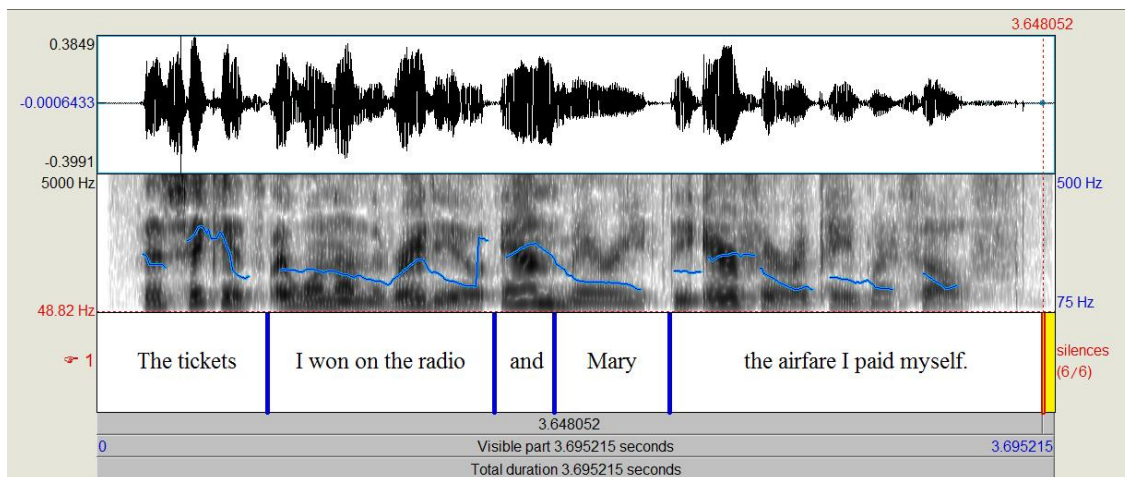
(ii)      S9.2 The cake, I bought at the bakery, <u>but</u>, Mary,         Average: 6.5
           the pie, I made myself.
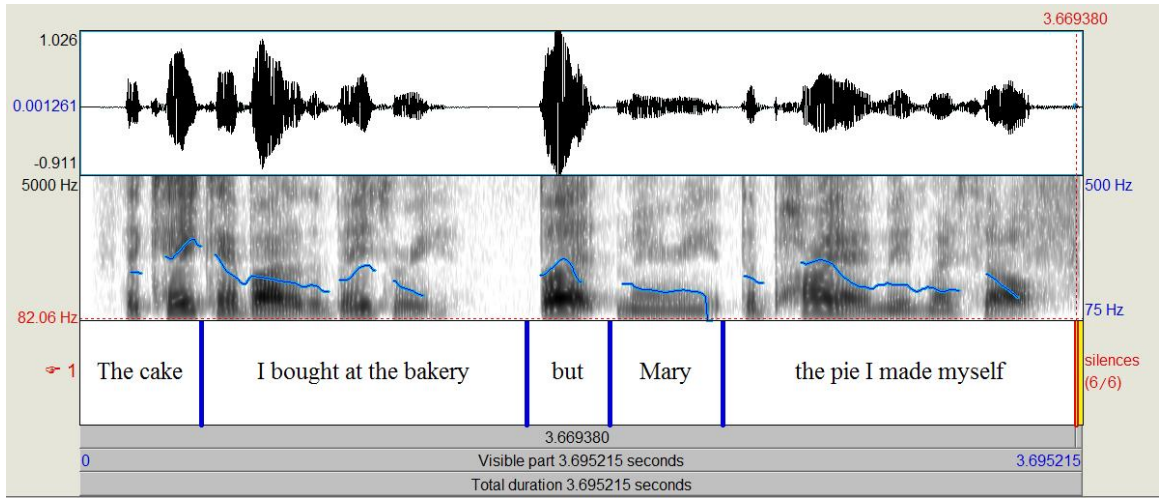


(iii)     S4.6 The tickets, I won on the radio, and, <u>Mary</u>, I paid      Average: 7.1
           the airfare myself.

(iv)     S9.1 The cake, I bought at the bakery, but, <u>Mary</u>,          Average: 4.5
              the pie, I made myself.
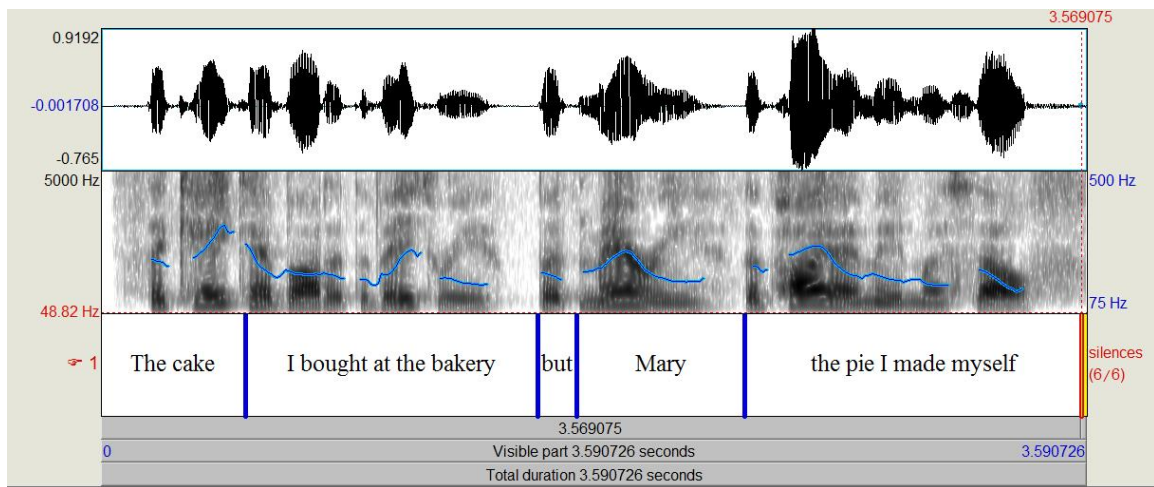


It is possible that the prosody does play a role in conjunction with which coordinator is used. Future study may clarify this oddity but, at present, it remains mysterious.

### e. Between V and PP Complement

S4.4 The skirt, I bought, Stephanie, at the mall, but your sweater     Average: 6.7
        I got downtown.
S9.6 The cake, I bought, Mary, at the bakery, but the pie I made       Average: 4.4
        myself.

Similarly, the position between the verb and its PP has shown a statistically significant variance according to the T-Test, but do not show as distinct a difference in the intonation as the pairs found in the position following the coordinator.

(i)    S4.4 The skirt, I bought, Stephanie, at the mall, but your            Average: 6.7
       sweater I got downtown.
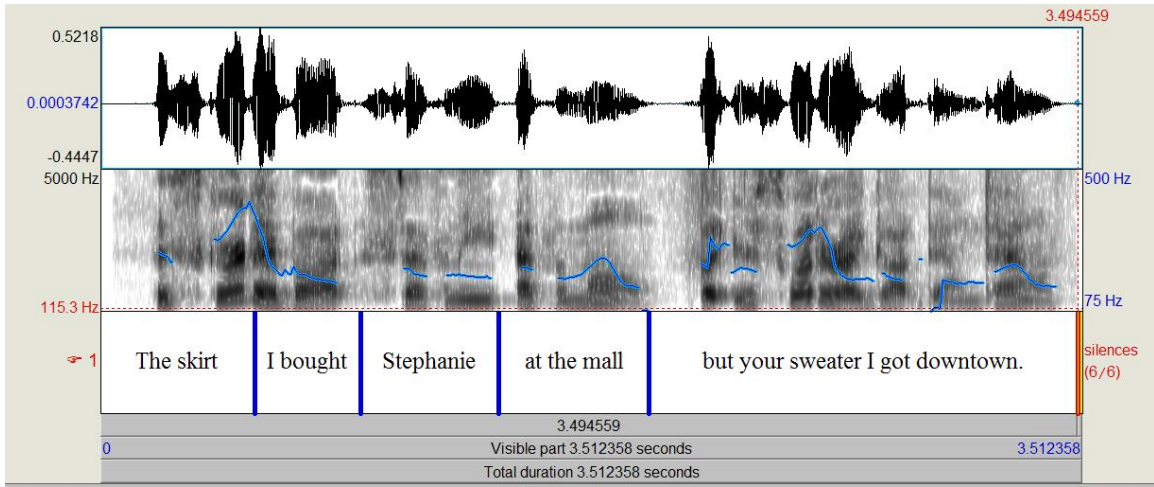


(ii)   S9.6 The cake, I bought, Mary, at the bakery, but the pie I          Average: 4.4
       made myself.
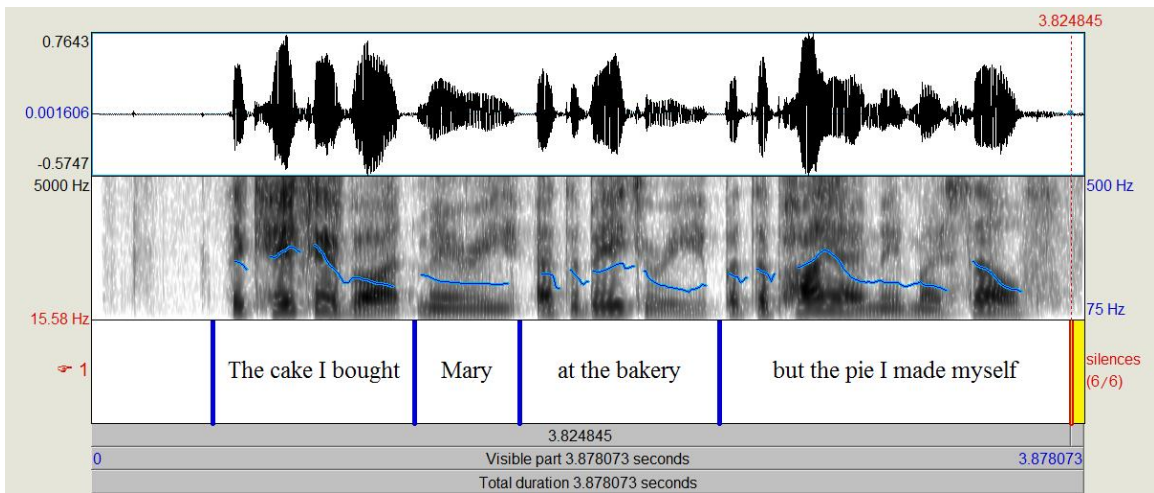


Given the similarities in structure and prosody, the factor which is to be accountable for

the significant difference in grammaticality judgments for this position remains elusive.

*f. Between P and DP Complement*

S4.3 The skirt, I bought at, Stephanie, the mall, but your sweater     Average: 5.1
       I got downtown.

S9.5 The cake, I bought at, Mary, the bakery, but the pie I made     Average: 3.7[18]
       myself.

*4.3 Dummy Subjects*

As briefly touched upon above, Dummy Subjects represent a key exception in one area – Vocatives cannot appear directly following them when they are the first subject. Beyond this matter, it seems they have no effect on where else the Vocatives may be, as shown by the following data.

*(10)*     *Dummy Subjects*

       *a.*    *Left Edge*

S55.19 John, it looks like it will rain.                             Average: 9.2
S55.20 George, it seems like you are angry about something.     Average: 9.7

       *b.*    *Right Edge*

S3.9 It's cold out, Fred.                                        Average: 9.5
S8.16 It is raining, Mary.                                       Average: 9.7

       *c.*    *After Dummy Subject*

S3.8 It, Lindsay, is raining.                                 Average: 4.0
S52.3 It, John, seems like you know how to play that banjo.     Average: 4.4
S3.13 There, Fred, is a way to get <u>around</u> the system.       Average: 4.1

---

[18] The T-Test shows that the difference between S4.3 and S9.5 is not significant.

>    *d.   Before Embedded CP*

S8.17 It is clear, Mary, that he likes you.					Average: 8.8
S8.18 It is clear, Mary, he likes you.						Average: 8.2
S3.10 There is a chance, Sarah, that you might win the contest.			Average: 9.1

>    *e.   Between the Verb and its Complement*

S3.11 <u>There</u> is, Bill, no way you can lose.					Average: 5.4
S3.12 There <u>is</u>, Fred, a way to get around the system.				Average: 7.3


In the case of S3.11 vs. the syntactically equivalent S3.12, the difference is
amounts to a statistically significant difference in acceptability judgments. An
investigation of the suprasegmental level shows prosody to be crucial.


>    (i)      S3.11 <u>There</u> is, Bill, no way you can lose.			Average: 5.4
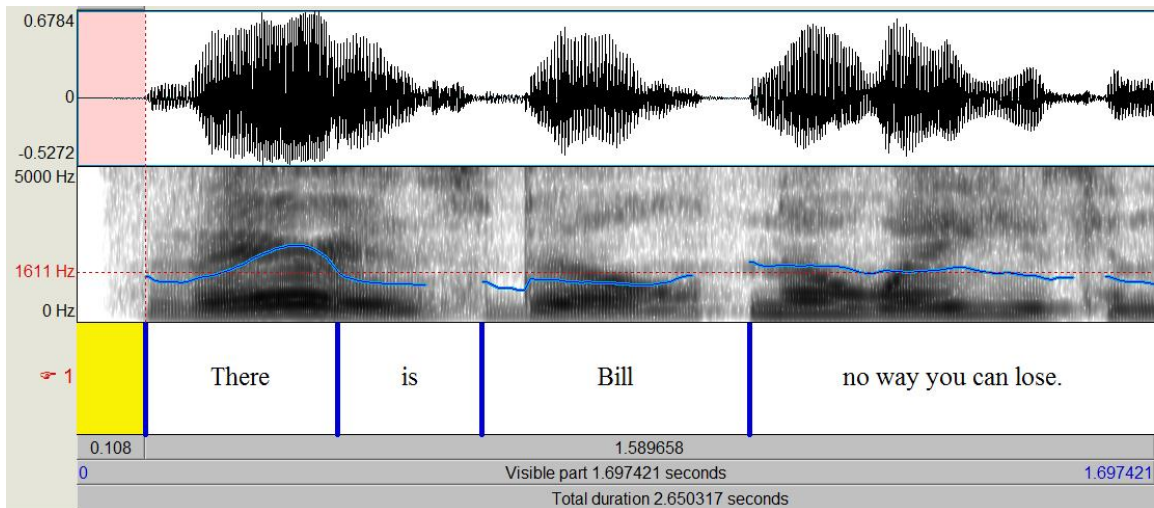
(ii)     S3.12 There <u>is</u>, Fred, a way to get around the system.          Average: 7.3
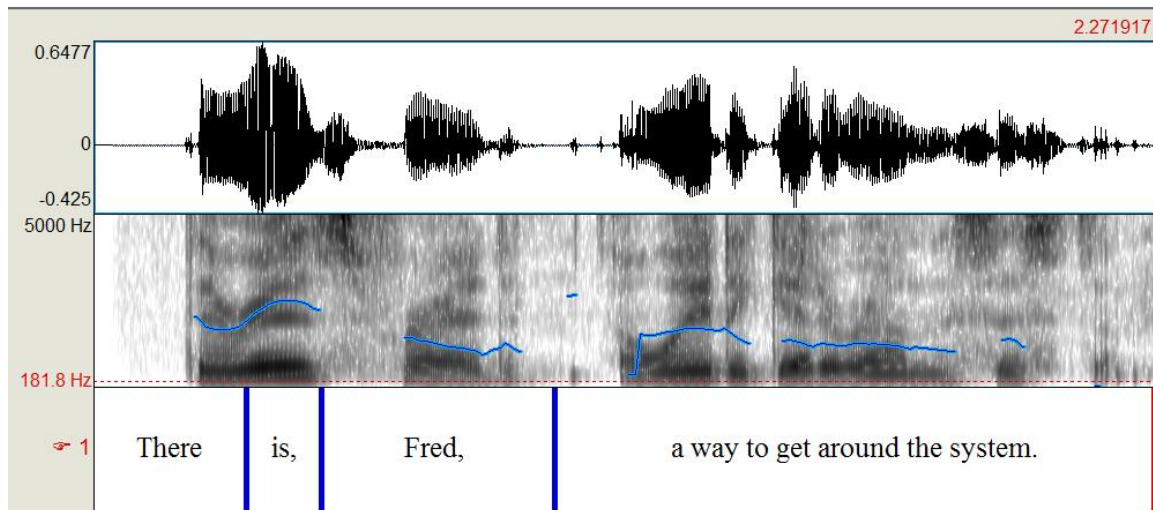


While additional research would be required to conclusively confirm this, it appears that this difference in grammaticality is entirely based on whether the Dummy Subject or the verb is stressed.

*4.4 CP Subject Formation*

CP Subject Formation poses a difficult set of data. It seems that even when Vocatives are not involved in any way, the subjects found them to be less clearly acceptable than one might expect, as shown by the examples S2.18 and S56.2. In cases where the Vocative appears at the left edge, the average acceptability can span a range of nearly 30% based mostly upon the type of Vocative which is used. At the right edge, they can vary by up to 24%, with DP with PP Vocatives appearing at the bottom of the scale.

(11)    *CP Subject Formation*

    *a. No Vocative*

S2.18 That he stole my watch is clear.                    Average: 6.8
S56.2 That it snowed last night is unfortunate.           Average: 7.0

    *b. Left Edge*

S8.12 Mary, that he likes you is obvious.                 Average: 7.0
S65.19 George, that you were angry was clear.             Average: 6.7
S10.3 Fred, that you need a haircut is not debatable.     Average: 5.6
S65.20 Susan, that George was angry was clear.            Average: 5.4
S10.6 You ungrateful jerk, that you need my help is clear.   Average: 4.7
S10.8 You in the back, that you don't know what you're doing   Average: 4.1
    is obvious.


Here, the T-Test shows the differences in grammaticality between S8.12 and any

of the other tested utterances except S65.19 above to be significant[19]. This is curious,

particularly in the case of the largely structurally equivalent and prosodically similar

S8.12 and S10.3.

---

[19] This difference is significant with a 95% confidence interval, but it may be of interest to note that at a 94% confidence interval, the difference is not significant. Perhaps, then, this difference is due to chance.

(i)   S8.12 Mary, that he likes you is obvious.   Average: 7.0
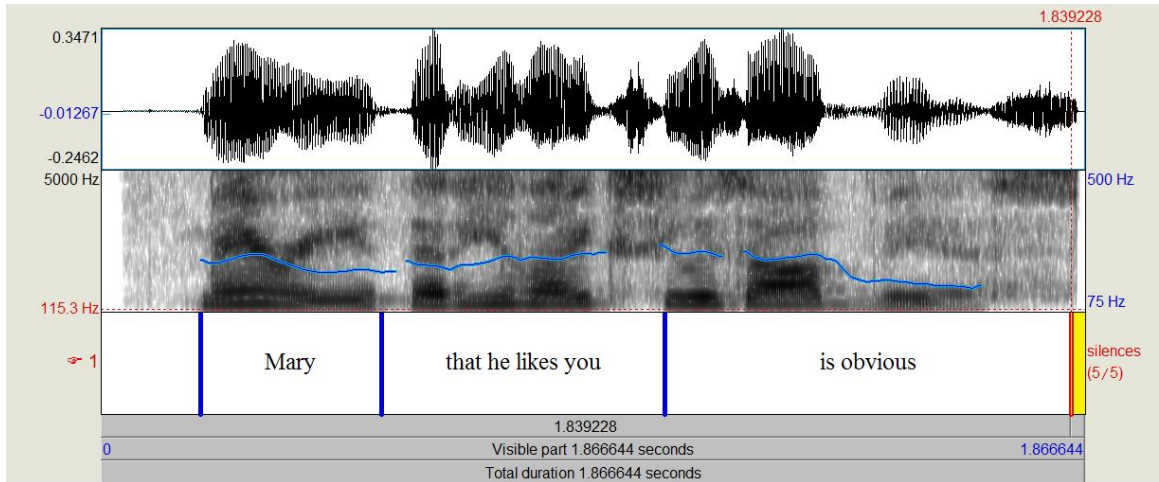


(ii)   S65.19 George, that you were angry was clear.   Average: 6.7
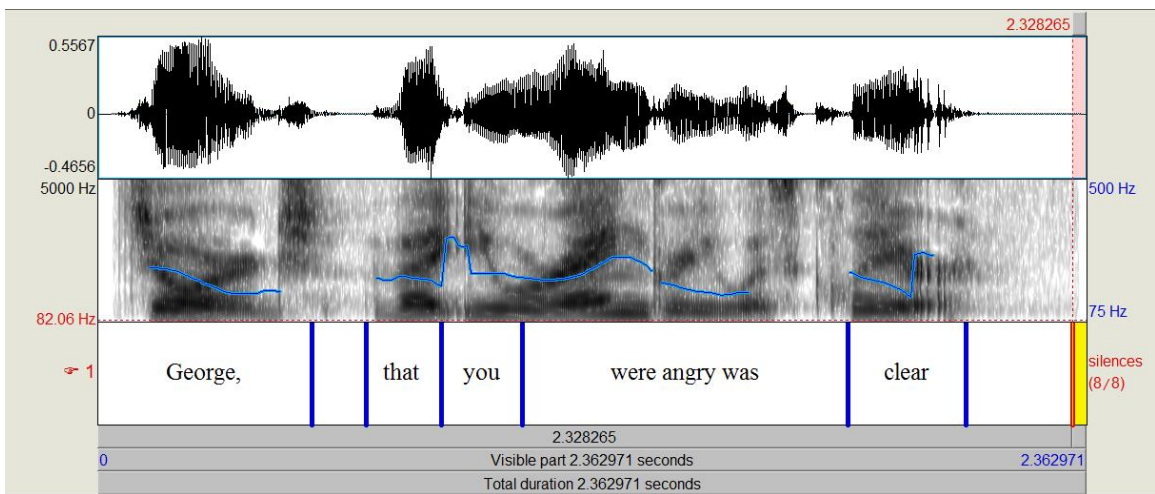
(iii)     S10.3 Fred, that you need a haircut is not debatable.          Average: 5.6
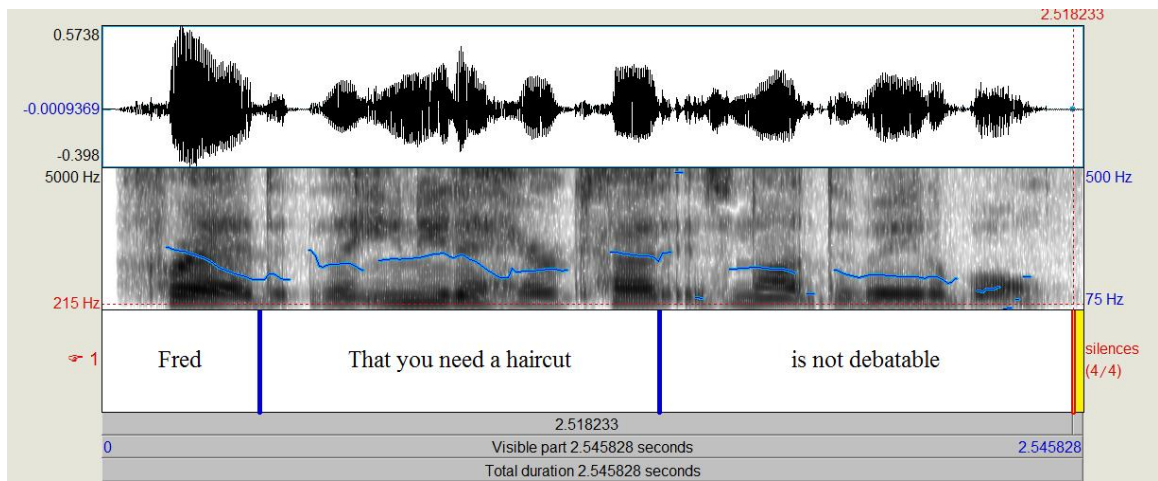


(iv)     S65.20 Susan, that George was angry was clear.          Average: 5.4
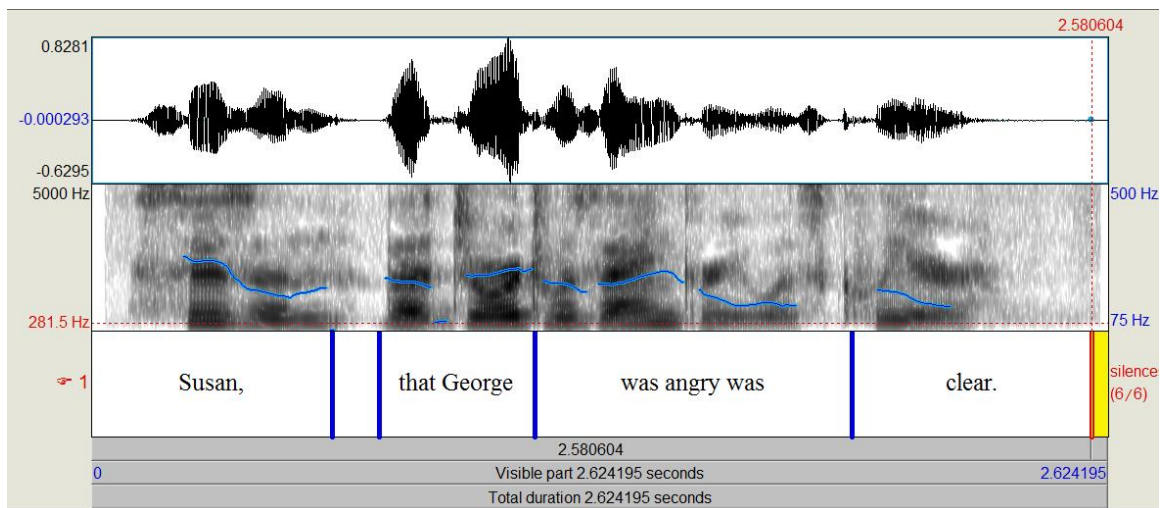


Given the structural and intonational similarities between these utterances which have garnered statistically significant differences in grammaticality judgments, the source of the discrepancies between averages remains unknown. Therefore, the data for the left edge, when CP Subject Formation is involved, is curiously mixed and may merit future research.

b. *Right Edge*

| | |
|---|---|
| S10.4 That you need a haircut is not debatable, Fred. | Average: 7.3 |
| S10.5 That you need a haircut is obvious, you weirdo. | Average: 7.1 |
| S10.9 That you don't know what you're doing is obvious, you in the front. | Average: 4.9 |

c. *After the CP Subject*

| | |
|---|---|
| S66.1 That you need a haircut, Fred, is not debatable. | Average: 7.8 |
| S66.2 That George was angry, Katie, was clear. | Average: 6.6 |
| S66.3 That Fred was lying, Susan, was obvious. | Average: 6.9 |

Curiously, the difference between the grammatical S66.1 and the inconclusive S66.2 is significant, but the difference between S66.1 and S66.3 is. Still, S66.2 and S66.3 are not statistically different from one another. While the argument can be made that S66.2 and S66.3 are both insignificantly distant from the grammaticality line of 7.0, the difference between S66.1 and the structurally equivalent S66.2 remains a peculiarity which may merit further research. For now, suffice it to say that the position following the fronted CP Subject is possible, but generally less acceptable[20] than following other subjects such as a simple DP as in S2.11:

| | | |
|---|---|---|
| (i) | S2.11 You, sir, are intolerable. | Average: 9.1 |

---

[20] The difference between S66.1 and S2.11 has been determined to be significant.

*4.5 WH Words*

Here, perhaps unsurprisingly, the left and right edges are largely acceptable, even when [+Q] WH words are involved. The exceptions present are the cases where there is a more complicated Vocative DP structure. DP with CP has proven to be found inconclusive or ungrammatical almost categorically, and the DP with PP has been shown to favor the left edge and have lower ratings at the right edge. This seems to hold especially true when there is a question involved in the utterance. Elsewhere, including directly after the WH word and after the first subject, range from inconclusive to ungrammatical. While the left and right edges also remain acceptable for [+R] WH words, following a lower subject, whether it be a direct object or the DP following a Dummy Subject, remain inconclusive.

(12)    *[+Q]*

   *a. Left Edge*

S7.12 Alice, which piano is broken?                              Average: 9.2
S7.15 You who know everything, which piano is broken?           Average: 6.7
S7.16 He who knows everything, which piano is broken?           Average: 6.7
S9.8 Mary, where did you put the cake?                          Average: 9.6
S9.15 You in the front, who are you?                           Average: 8.8

   *b. Right Edge*

S7.13 Which book would you like, Tom?                           Average: 9.7
S7.14 Which piano is broken, he who knows everything?          Average: 5.5
S7.17 Which piano is broken, know-it-all?                       Average: 8.4
S9.9 Where did you put the cake, Mary?                          Average: 9.9
S9.14 Where are you going, you in the coat?                     Average: 5.9

*c. After WH Word*

S9.10 Where, Mary, did you put the cake?                    Average: 6.6
S9.16 Where, you in the front, do you think you're going?   Average: 5.1
S9.17 When, you in the costume, did you arrive?             Average: 5.2
S9.12 Why, John, didn't you come to the party?             Average: 6.5

*d.  After First Subject*

S9.11 When did you, Fred, get here?                        Average: 5.4
S9.13 Why did you, Susan, forget the cake?                 Average: 4.9

(13)    [+R]

*a. Left Edge*

S7.18 Tom, I wonder which book she wants me to buy her.    Average: 8.9
S9.18 Alice, I need to know which coat is yours.           Average: 9.7

*b. Right Edge*

S7.19 I'm not sure which piano is broken, Alice.          Average: 9.7
S9.19 I'm not sure when the party is, Fred.               Average: 9.2

*c. After first Subject*

S52.4 She, Fred, is not sure which paper she should write.  Average: 4.9
S52.5 He, Madeline, wanted to know which book to buy.      Average: 5.5

*d.  After WH word*

S56.9 Karen was not sure which, Fred, song you wrote.      Average: 2.4
S56.10 Karen was not sure <u>which</u>, Fred, song you wrote.   Average: 2.5
S56.11 I was wondering why, George, you are so angry.      Average: 5.6
S56.12 I was wondering <u>why</u>, George, you are so angry.    Average: 6.8

Here, the difference between S56.9 and S56.10 is not significant, but the T-Test showed that the difference between S56.11 and S56.12 is significant. It is possible that the difference in the WH phrase structure (i.e. the fact that "why" has a TP complement

and "which" has a DP complement may account for the difference in grammaticality

levels between S56.10 and S56.12, for example.

     *e.  After [+R] phrase*

S7.20 I'm not sure which piano, Alice, is broken.          Average: 4.8
S8.1 I'm not sure <u>which</u> piano, Alice, is broken.          Average: 5.7[21]
S9.20 I need to know which coat, Alice, is yours.          Average: 6.2

     While none of these scores merit a grammatical judgment, this data remains of

interest from a prosodic standpoint. In the case of S7.20 vs. S8.1, emphasizing the WH

word improves the sentence by a statistically significant 9%. This applies only to WH

words as shown by the data of S8.2 and S8.3, which have a similar structure but no WH

word or significant difference.

     *(14)          WH versus no WH*

     *a.  WH*

S7.20 I'm not sure which piano, Alice, is broken.          Average: 4.8
S8.1 I'm not sure <u>which</u> piano, Alice, is broken.          Average: 5.7

     *a.  No WH*

S8.2 It is possible that this piano, Tom, is broken.          Average: 6.8
S8.3 It is possible that <u>this</u> piano, Tom, is broken.          Average: 6.5

---

[21] The difference between S7.20 and S8.1 has been shown to be statistically insignificant by the T-Test.

(i)     S7.20 I'm not sure which piano, Alice, is broken.          Average: 4.8
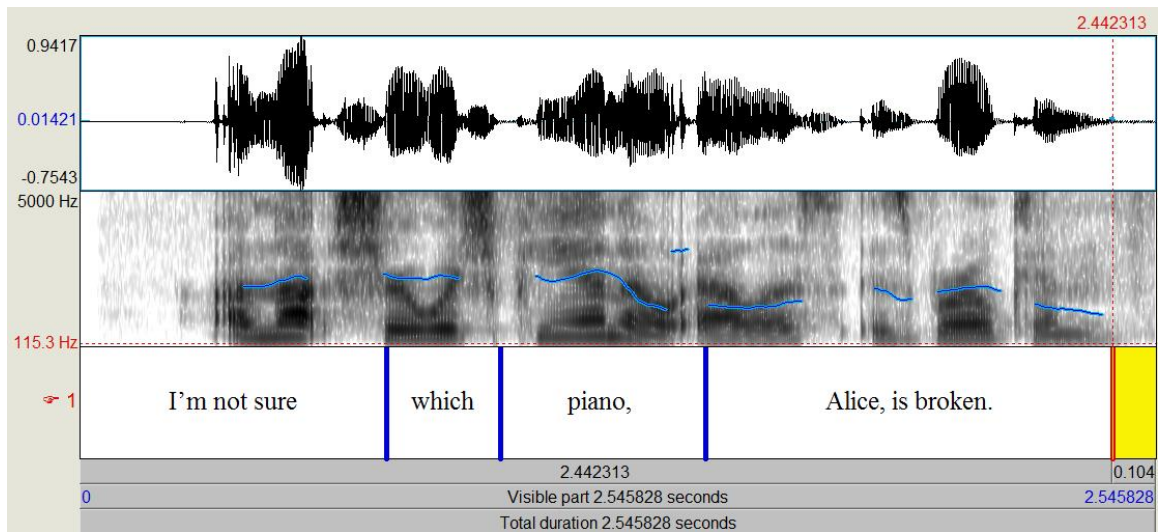


(ii)     S8.1 I'm not sure <u>which</u> piano, Alice, is broken.          Average: 5.7
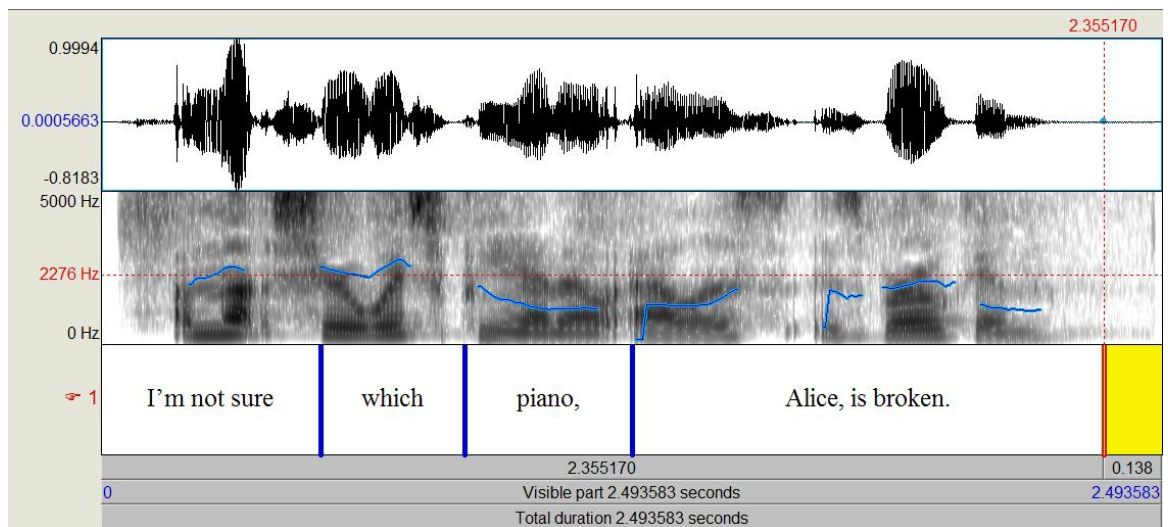
(iii)     S8.2 It is possible that this piano, Tom, is broken.          Average: 6.8
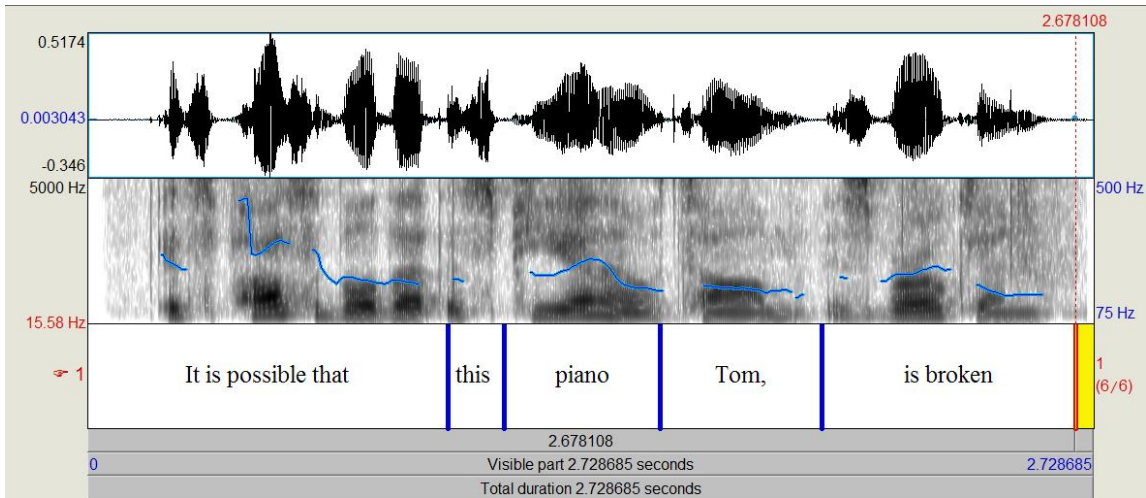


(iv)     S8.3 It is possible that <u>this</u> piano, Tom, is broken.          Average: 6.5
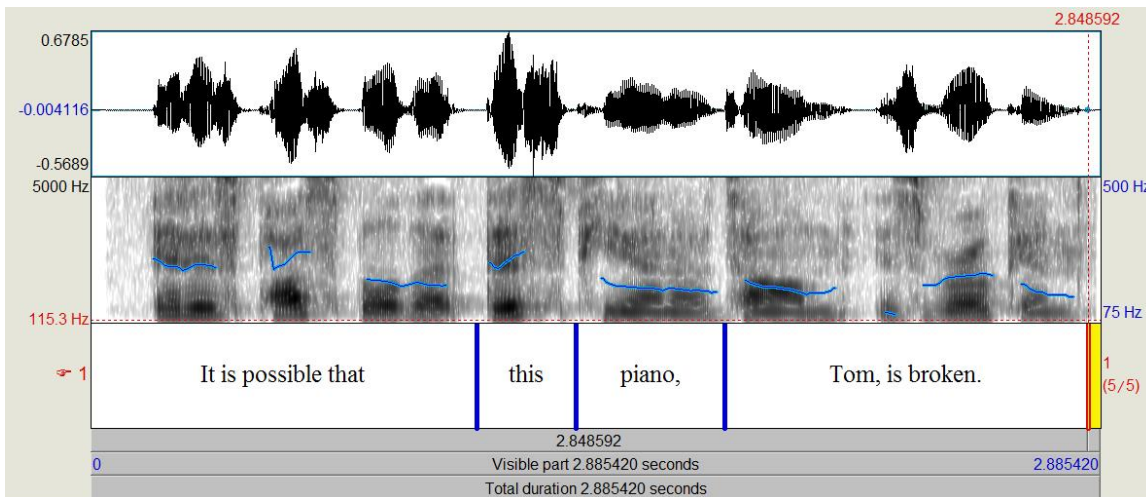


This fact goes to show that even when the data is inconclusive, prosodic characteristics may still be influential to a statistically significant degree.

*4.6 Auxiliary Verb Chains*

Across the board, interrupting an auxiliary verb chain is strictly ungrammatical. Whether the Vocative is placed between two auxiliary words or between an auxiliary verb and the main verb, it is inconclusive at best or ungrammatical at worst.

*(15)    Auxiliary Chains*

S8.20 The cat, Tom, may be eating your goldfish.          Average: 5.9[22]
S56.6 He, Katie, could have been a famous actor.          Average: 5.6
S8.4 It is possible that she could, Tom, have been at the party.          Average: 5.0
S8.5 It is possible that she could have, Tom, been at the party.          Average: 5.1
S8.6 She might have been, Tom, driving to the store.          Average: 4.4

In the case of Auxiliary chains, a difference in emphasis can result in statistically significant differences in grammaticality judgments. However, these changes in stress may improve the rating, but ultimately, these changes do not amount to a judgment of "grammatical" according to this work's standards.

*(16)       Auxiliary Chains and Prosody*

S8.7 The cat <u>will</u>, Tom, eat your goldfish.          Average: 5.1
S8.9 The cat will, Tom, eat your goldfish.          Average: 3.8
S8.10 The cat <u>may</u>, Tom, be eating your goldfish.          Average: 4.9
S8.11 The cat may, Tom, be eating your goldfish.          Average: 3.6

---

[22] It is possible that this inconclusivity results from the confound of misunderstanding the Vocative "Tom" as referring to the cat.

(i)        S8.7  The cat <u>will</u>, Tom, eat your goldfish.                    Average: 5.3
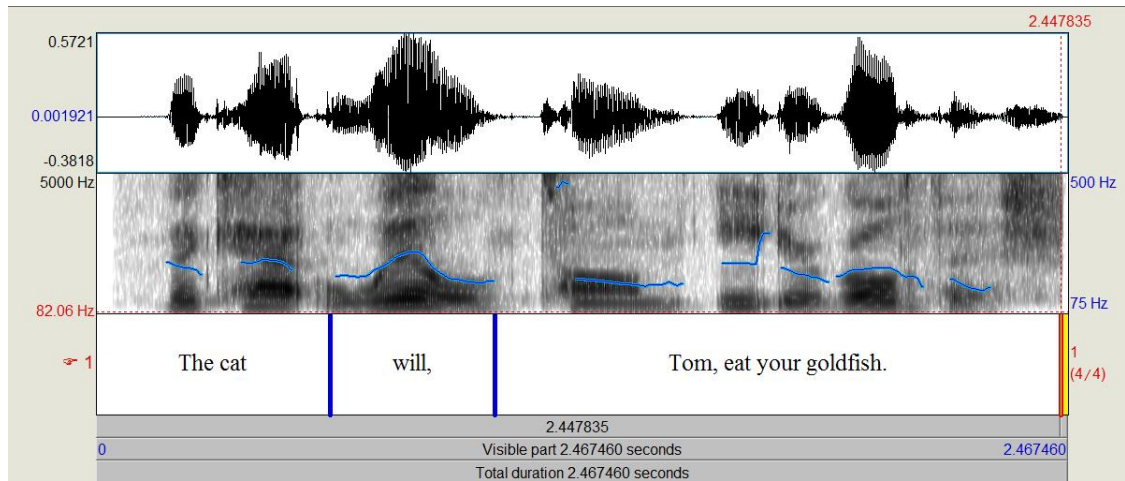


(ii)       S8.8 The cat will, Tom, eat your goldfish.                    Average: 3.8
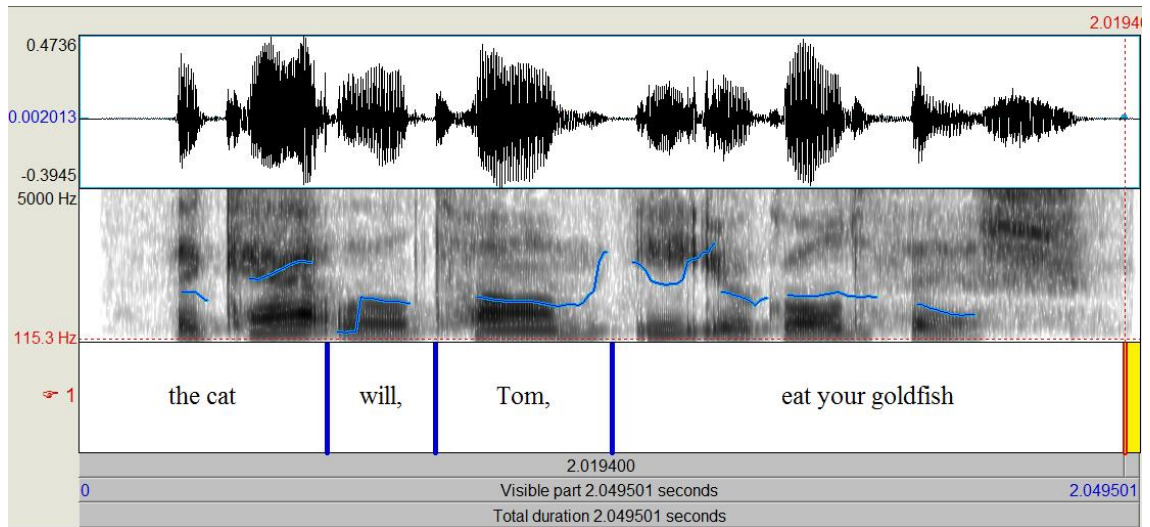
(iii)    S8.9 The cat <u>may</u>, Tom, be eating your goldfish.            Average: 4.9
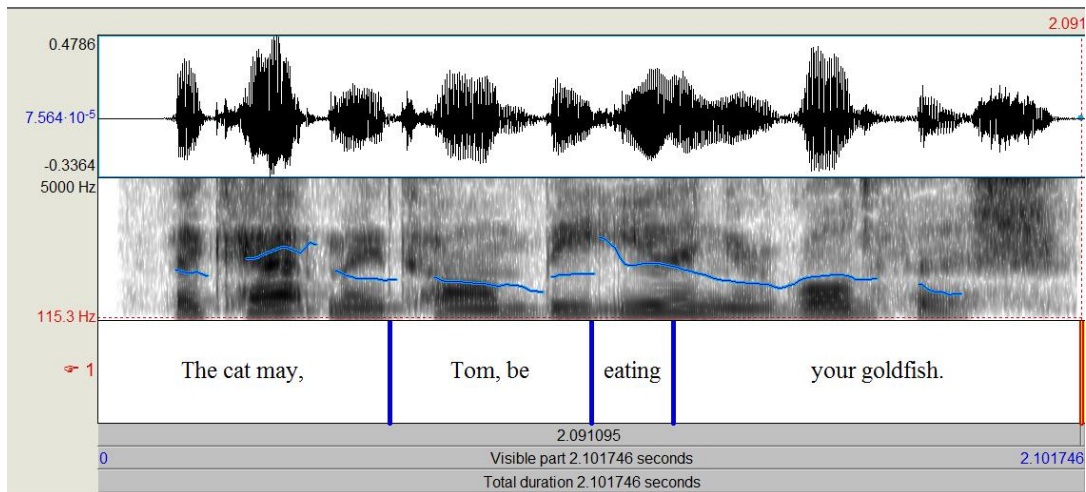


(iv)    S8.10 The cat may, Tom, be eating your goldfish.            Average: 3.6
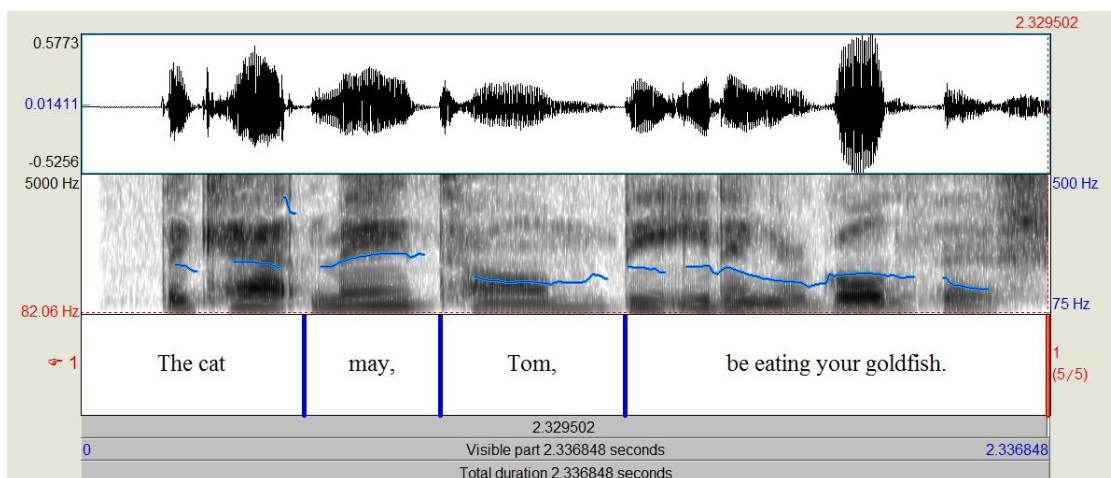


Once again, prosody plays a significant role, if not to the extent of earning an inconclusive utterance a grammatical score.

*4.7 PP Chains*

According to the data, Vocatives are generally acceptable between PPs in a PP chain, as well as at the left edge and the right edge, even when following a PP chain.

(17)    *PP Chains*

    a.    *Left Edge:*

| | |
|---|---|
| S52.6 Katie, I will be going to Australia by ship on vacation this summer. | Average: 9.4 |
| S52.7 George, she is waiting for you in the rain at the bus stop on Main street. | Average: 9.6 |

    b.    *Right Edge*

| | | |
|---|---|---|
| S2.5 | A: Why don't you like him?<br>B: He punched me in the face, Jill. | Average: 9.1 |
| S2.9 | A: Why don't you like him?<br>B: He punched me for no reason, in the face, in front of my boss, Jill. | Average: 7.4 |
| S11.19 I'm going to the county fair on Saturday, by bus, with my cousins, Alice. | | Average: 7.4 |

    c.    *Before First PP*

| | | |
|---|---|---|
| S2.6 | A: Why don't you like him?<br>B: He punched me, Jill, in the face. | Average: 8.2 |
| S52.8 I am leaving, Katie, for Australia by ship in two weeks. | | Average: 7.6 |

    d.    *After First PP*

| | | |
|---|---|---|
| S2.8 | A: Why don't you like him?<br>B: He punched me for no reason, Jill, in the face, in front of my boss. | Average: 7.8 |
| S52.9 | A: Where can I find George?<br>B: He is sitting on the bench, Katie, by the fountain near the gate. | Average: 8.5 |
| S11.20 I'm going to the county fair on Saturday, Alice, by bus with my cousins. | | Average: 6.0 |
| S52.10 Erin is buying coffee down the street, George, with Karen at the corner store. | | Average: 7.4 |

This data, particularly S11.20 is curious. Despite being structurally equivalent to the others, S11.20 has a statistically significantly lower average – 6.0. While it may first appear the difference between the two is resultant from the fact that the former has the added context of a different speaker's preceding question whereas the latter does not, S52.10 disproves that notion. S11.20 did have more variation in judgments than the others, which may indicate either a confounding element which I have been unable to discern or, perhaps, chance. However, the T-Test with up to a 97% confidence interval (i.e. calculated with an alpha level of 0.03), makes the likelihood that the difference between S11.20 and its closest neighbor, S52.10, is insignificant quite insignificant itself, thus suggesting that something more than chance is at play here.

e. *After 2$^{nd}$ PP (where this is not the right edge)*

| S2.7 | A: Why don't you like him? | Average: 8.0 |
| | B: He punched me for no reason, in the face, Jill, in front of my boss. | |
| S52.11 | Erin is buying coffee down the street with Karen, George, at the corner store. | Average: 7.0 |

*4.8 Coordinated Structures*

*4.8.1  Coordinated DPs*

Vocative DPs are acceptable at the left edge, even when the first subject is a complex one featuring coordinated proper names, and the right edge. The only possible exception to this is S10.18, which is inconclusive, but has the confounding element of featuring a DP with PP Vocative at the right edge – a matter which has been proven to be

complicated. Interrupting the coordinated DP subject with a Vocative before the coordinator is strictly ungrammatical, as shown by the following data.

(18)    *Coordinated DPs*

      *a. Left Edge*

| | |
|---|---|
| S10.13 Sir, Susan and James are already working on that project. | Average: 9.0 |
| S10.17 You in the front, Karen and Susan will show you where the copier is. | Average: 8.3 |

      *b. Right Edge*

| | |
|---|---|
| S10.18 Karen and Susan will show you how to use the copier, you you in the blue coat. | Average: 5.8 |
| S10.16 Karen and Fred are going with me to the party, Mom. | Average: 9.0 |

      *c. After Coordinated DPs*

| | |
|---|---|
| S10.11 Karen and Fred, Mom, are going with me to the party. | Average: 5.6 |
| S10.12 Susan and James, sir, are working on that project. | Average: 6.9 |

      *d. Before Coordinator*

| | |
|---|---|
| S10.14 Susan, sir, and James are already working on that project. | Average: 4.8 |
| S10.15 Karen, Mom, and Fred are going with me to the party. | Average: 4.7 |

      *e. After Coordinator*

| | |
|---|---|
| S52.12 Susan and, Fred, your mother will be visiting next week. | Average: 5.9 |
| S52.13 Karen and, Matthew, Katie will be at the party. | Average: 4.8 |

## 4.8.2    Coordinated VPs

The usual suspects – the left and right edges and after the first subject – remain grammatical, even when coordinated VPs are involved.

*(19)        Coordinated VPs*

*a. Left Edge*

| | |
|---|---|
| S6.14 Fred, you need to get up and find a job. | Average: 9.5 |
| S11.6 You sweetheart, she said you saved her dog and took care of him for a week. | Average: 9.0 |

*b. Right Edge*

| | |
|---|---|
| S6.15 You need to get off this couch and find a job, Fred. | Average: 9.5 |
| S11.5 I saw you apologize and buy her coffee, you gentleman. | Average: 7.3 |

*c. After First Subject*

| | |
|---|---|
| S6.16 You, Fred, need to get off this couch and find a job. | Average: 8.4 |
| S52.14 The dog, Susan, ate all the chicken and knocked over the kitchen table. | Average: 6.4 |

Here, the difference between S6.16 and S52.14 is statistically significant. It is possible that the second versus third person addresses are a factor. One comment on S52.14 suggests that the sentence is only grammatical if "Susan" is parsed not as a Vocative, but as a clarification as to the dog's name:

| | | |
|---|---|---|
| (i) | S52.14 The dog, Susan, ate all the chicken and knocked over the kitchen table. | Average: 6.4 |

Comments:

b.   Unless the dog is named susan [sic]

*d.  Before Coordinator*

| | |
|---|---|
| S52.15 The dog ate all the chicken, Susan, and knocked over the kitchen table | Average: 8.1 |
| S52.16 Mary went to the store, George, and picked up our dry cleaning. | Average: 6.1 |

The difference between S52.15 and S52.16 is statistically significant, which is odd given the structural equivalency. A look at the suprasegmental level shows the intonation of the utterances to be largely comparable with one possibly notable discrepancy when it comes to the Vocatives:

(i)      S52.15 The dog ate all the chicken, Susan, and knocked over    Average: 8.1
            the kitchen table
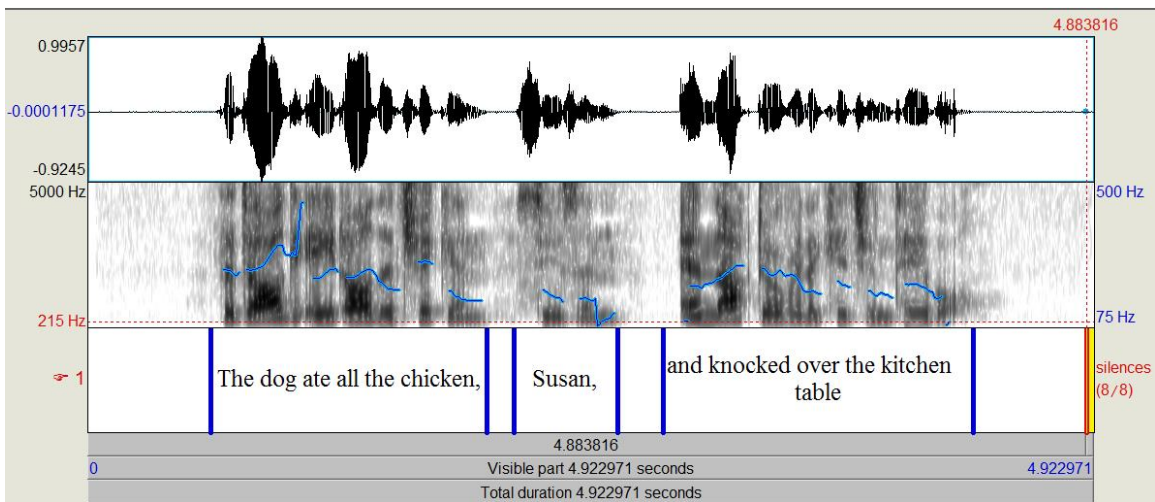


(ii)     S52.16 Mary went to the store, George, and picked up our dry   Average: 6.1
            cleaning.
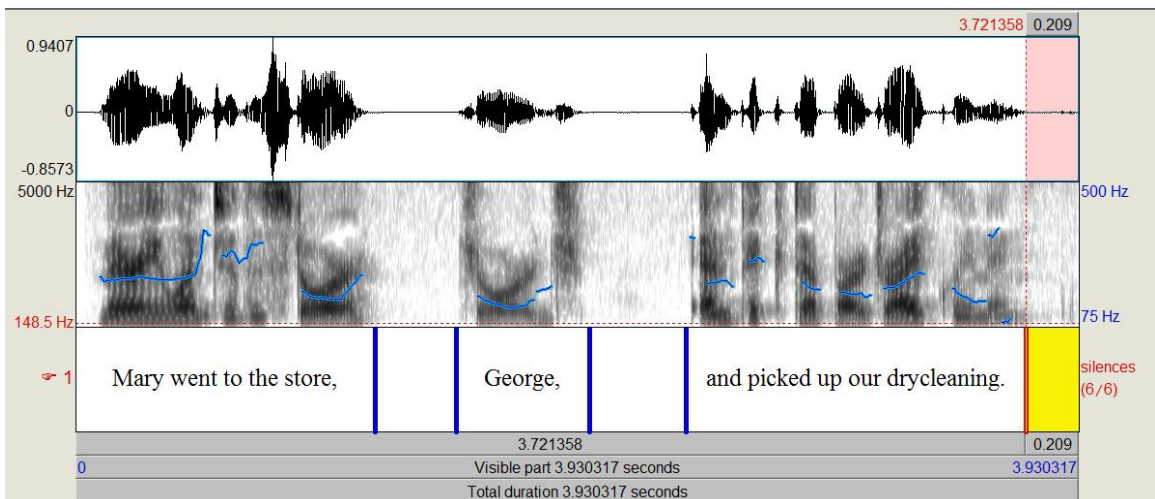
The prosodic similarities in general intonation hold, but the intonation on the Vocative show differences – S52.15 has a lowering pitch on the Vocative "Susan", but 52.16's "George" has a rising intonation. Determining whether or not this is the variable to blame for the difference in grammaticality may merit further investigation in the future.

### e. After Coordinator

S52.17 The dog ate all the chicken and, Susan, knocked over the            Average: 3.5
      kitchen table.
S52.18 Mary went to the store and, George, picked up our dry              Average: 4.0
      cleaning.

### 4.8.3    Coordinated TPs

As one may expect by this point, the left and right edges are acceptable. However, following a subject, whether that subject be the first of the first clause or the first of the second clause, is strictly ungrammatical where coordinated TPs are involved[23]. As with the data from other coordinated structures, inserting a Vocative after the coordinator is ungrammatical. Interestingly, the Vocative appears to be acceptable before the coordinator.

### (20)        Coordinated TPs

#### a.    Left Edge

S6.13 Fred, you need to get up and you need to find a job.            Average: 9.5
S11.7 Mary, he saved her dog from the street and he took care of      Average: 9.0
      him for a week.

---

[23] Except in cases with Contrastive Topicalization, as discussed in Section 4.2.

b.  *Right Edge*

S11.8 He saved her dog and he took care of him for a week, Mary.     Average: 8.7
S52.19 The dog ate all the food and the cat destroyed the curtains,     Average: 8.7
  Fred.

c.  *After the First Subject of the First TP*

S11.11 He, Mary, saved her dog and he took care of him for     Average: 3.7
  a week.
S52.20 The dog, Fred, ate all the food and the cat destroyed the     Average: 6.1
  curtains.

d.  *After Other Subjects*

S11.12 He saved her dog and he, Mary, took care of him for     Average: 4.2
  a week.
S53.1 The dog ate all the food and the cat, Fred, destroyed the     Average: 6.9
  curtains.

e.  *Before Coordinator*

S11.9 He saved her dog, Mary, and he took care of him for     Average: 8.5
  a week.
S6.9 I hate baseball, Fred, and I hate the stadium food.     Average: 9.3

f.  *After Coordinator*

S11.10 He saved her dog and, Mary, he took care of him for     Average: 4.8
  a week.
S53.2 The dog ate all the food and, Fred, the cat destroyed the     Average: 4.7
  curtains.

# 5   Conclusions

## 5.1 Internal Vocative Structure

In summary, the data suggests that Vocative DPs may be of three structures – simple DP, DA*N, and DP with PP – which are judged to be grammatical Vocatives across American English dialects.

1. Simple DP

```
        DP
        |
        D'
       /  \
      D    NP
    Katie   |
            N'
            |
            N
          Katie
```

2. DA*N

```
         DP
         |
         D'
        /  \
       D    NP
      you    \
              N'
             /  \
            AP   NP
            |    |
            A    N'
         charming |
                  N
                 man
```

3. DP with PP

```
                    DP
                    |
                   D'
                  /  \
                 D    NP
                you   /  \
                     /    \
                   NP      PP
                   |       |
                   N'      P'
                   |      /  \
                   N     P    DP
                  you    in    |
                              D'
                             /  \
                            D    NP
                           the   |
                                 N'
                                 |
                                 N
                                back
```
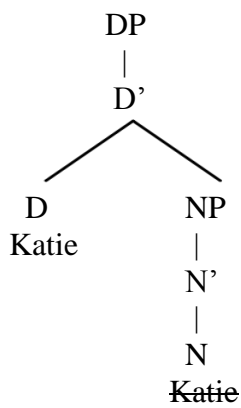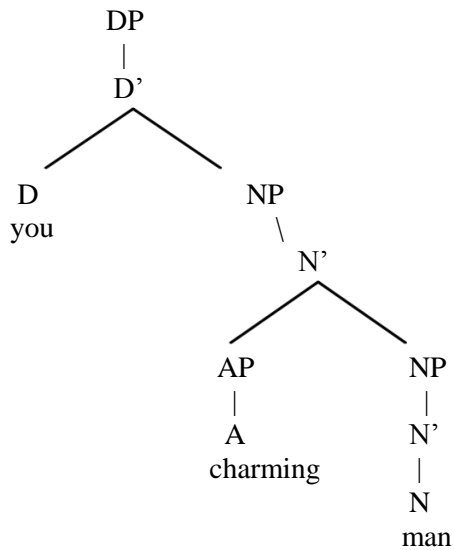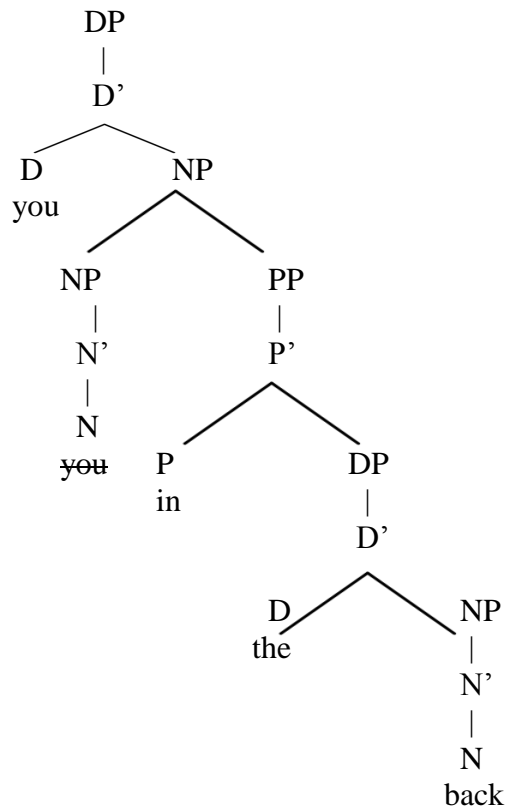
*5.2 Grammatical Interpolation Points*

As for the syntactic positions, Vocative expressions appear to be universally acceptable in three positions: at the left and right edges, as long as nothing is already in said position, as well as after the first subject of the highest TP.

1. The Left Edge
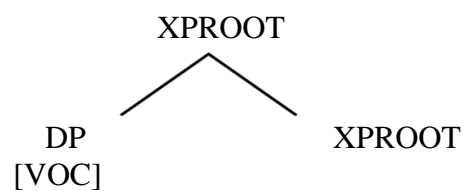
```
              XPROOT
              /    \
         DP         XPROOT
        [VOC]
```

This position remains grammatical even when most complex structures are present. However, the left edge has received ungrammatical, inconclusive, and borderline grammatical scores when CP Subject formation is also present in the utterance (see Section 4.4).

2. The Right Edge

```
              XPROOT
              /    \
       XPROOT       DP
                   [VOC]
```

3.  After the first subject



Because the utterance would be pronounced identically whether the Vocative DP right-adjoins to the subject DP or left-adjoins to T', with the present data, it cannot be determined how exactly the Vocative attaches in these cases. However, it is clear that the DP may occur immediately after the first subject unless that subject is a coordinated DP, at which point it is inconclusive at best. Vocatives following fronted CP Subjects are permitted, but come with more variability of acceptance rates.

4. In a PP Chain

```
                              TP
                    ┌──────────────────┐
                   TP                  DP
              ┌─────────┐            [VOC]
             DP         T'
                    ┌────────────┐
                    T            VP
                          ┌──────────────┐
                         VP               PP
                    ┌─────────┐
                   VP          DP
              ┌─────────┐     [VOC]
             VP          PP
         ┌─────────┐
        VP          DP
   ┌─────────┐     [VOC]
  VP          PP
   │
   V'
 ┌──────┐
 V     (DP)
```

The data have shown Vocative DPs to be grammatical at any of these points –
between the first and second PPs in a PP chain, between the 2nd and 3rd PPs, or at the
right edge following a PP chain.

## 5. Before a Coordinator of Coordinated VPs[24]
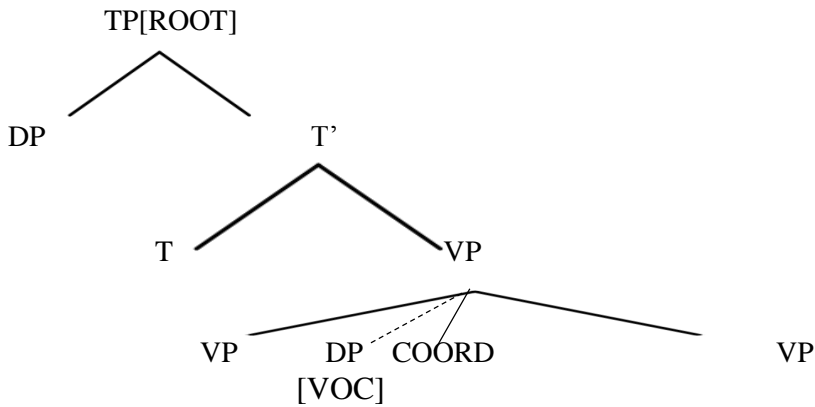
TP[ROOT]

DP    T'

T    VP

VP    DP [VOC]    COORD    VP

## 6. Before a Coordinator of Coordinated TPs

TP[ROOT]

TP    DP [VOC]    COORD    TP

## 7. Before an Embedded CP with an Overt C

TP

DP    T'

T    VP

V'

V    CP

DP [VOC]    C'

C    TP

DP    T'

T    VP

---
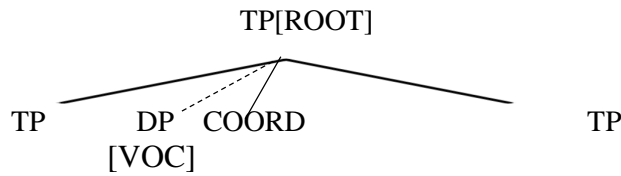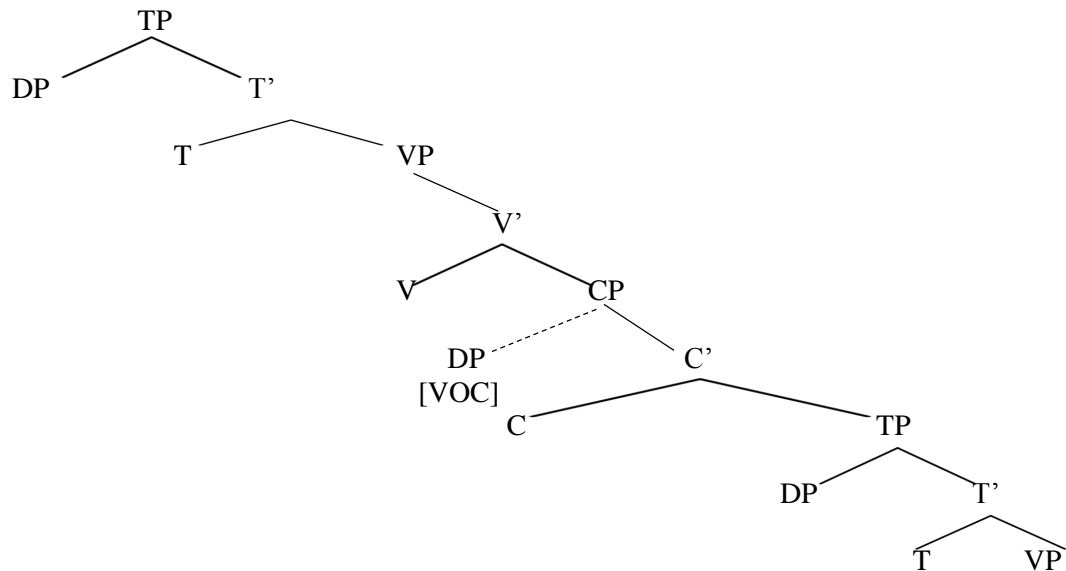
[24] While Binarity is generally observed, I do not find that it serves for the purposes of coordinated structures. Therefore my representation of the coordination structure is as you see it, with the coordinated items and coordinator all in the same level/plane, which is in violation of Binarity. As with the other representations, the dashed lines in such structures indicate that it is unclear where precisely the PE adjoins relative to its adjacent objects (i.e. whether L-adjoin to the item to the right or R-adjoin to the preceding object). However, I do posit adjunction structure for PEs, *not* an additional violation of Binarity.

All other positions are subject to variation depending on the type of Vocative and other factors such as interactions with other objects and processes.

## 4. MITIGATORY PARENTHETICAL EXPRESSIONS

## 1 Introduction

### 1.1 Mitigatory PEs

Mitigatory PEs are a class of parentheticals which are used in an effort to soften the potential negative emotional effects hearing the proposition to which the PE is connected may have on the hearer. They can come in many forms and the lines between these and other types of PEs, say Evidential PEs, can be murky. Some of these PEs have been included in the works of others who have categorized parentheticals by their internal structure rather than their pragmatic or semantic function. As such, the previous analyses involve some of which I term "Mitigatory" PEs in conjunction with different parentheticals which would fall under separate groups by my categorization system. (e.g. Infantidou-Trouki 1993 and Safir 1986's study of adverbs and the work on as-parentheticals by Potts 2002 and Haegeman 1988).

*1.2 Scope of Discussion*

In the second chapter, Vocatives, I listed ungrammatical interpolation points and discussed them at some length in order to defend the assumption that there are places which are not acceptable for interpolation in principle, which is a foundational assumption for this work. Since that point has been proven for obvious cases, I will not be presenting such detailed explanations of ungrammatical positions going forward. This is largely due to time constraints and for the sake of brevity. Since it has been reliably established that PEs cannot go, for example, between a determiner and a noun, it would be a waste of time and energy to repeat multiple occasions of this for each section and different individual PEs of various structures and categories in order to prove that it is still ungrammatical would be a waste of time and energy. From this point forward, while many suspected ungrammatical attachment points will be investigated, I shall not be laboriously waxing on about them simply to prove a point which has already been made.

Instead, I shall be focusing, as I stated in the introduction, on where the PEs *can* interpolate. Where these positions contrast or correlate with PEs of other categories, it will be discussed. As it stands, there is already much to discuss without beating the dead horse which has been not only intuitively obvious to native speakers, but previously discussed quite thoroughly enough for the purposes of this work in my humble opinion.

## 2   Mitigatory PE Internal Structure

Unlike Vocatives, which exclusively take the form of DPs (of varied structure though they may be), the pragmatically (not syntactically) defined category of "Mitigatory PEs" can take many forms. They can present as adverbs, PPs, or even TPs. A few examples of these which have been tested in this work can be found below:

(1) Mitigatory PEs

   a. Apparently
   b. Incidentally
   c. By the way
   d. (As) it turns out
   e. (As) it happens
   f. It so happens[1]

---

[1] Not to be confused with the "it so happens that…", which is not a parenthetical, but rather a host for an embedded clause (e.g. "it so happens that Bob was in that horrible play you insulted" vs. "Bob was in that horrible play you insulted, it so happens.").

## 3. Distribution of Mitigatory PEs within Simple Structures

*3.1 The Edges*

The left and right edges are nearly[2] universally acceptable locations for Mitigatory PEs, just as with Vocatives. A few examples from the plethora of data confirming this follow:

(5) *Edges*

    a. *Left Edge*

| | |
|---|---|
| S15.10 By the way, he has a girlfriend. | Average: 9.6 |
| S15.17 Incident'ly, he has a girlfriend. | Average: 8.2 |
| S18.5 As it turns out, it was raining. | Average: 9.8 |
| S23.7 Apparently, everyone knows that he hates that movie. | Average: 9.8 |
| S25.10 As it happens, the yard and the pool were in terrible condition. | Average: 8.8 |
| S26.17 Incidentally, he heard that Bill would leave and Susan would stay. | Average: 8.6 |

    b. *Right Edge*

| | |
|---|---|
| S15.1 He has a girlfriend, incidentally. | Average: 8.9 |
| S15.2 He has a girlfriend, apparently. | Average: 9.6 |
| S15.14 He has a girlfriend, by the way. | Average: 9.6 |
| S15.19 He has a girlfriend, incident'ly. | Average: 8.0 |
| S18.9 It seemed like he knew what he was doing, by the way. | Average: 8.6 |
| S19.17 What he did, I hate, but how he did it, I love, as it happens. | Average: 7.2 |
| S23.6 Everyone knows that he hates that movie, apparently. | Average: 7.7 |

---

[2] The only questionable cases are due to the presence of a confound such as WH movement or the like. These instances will be discussed in their corresponding Sections.

Interestingly, there does seem to be some variation depending on which Mitigatory PE is used. The T-Test[3] has determined that the differences between all but S15.1 vs. S15.3 vs. S15.5 are significant with 95% confidence.

*(6) Different PEs*

| | |
|---|---|
| S15.1 He has a girlfriend, incidentally. | Average: 8.9 |
| S15.2 He has a girlfriend, apparently. | Average: 9.6 |
| S15.3 He has a girlfriend, as it turns out. | Average: 8.8 |
| S15.4 He has a girlfriend, as it happens. | Average: 6.4 |
| S15.5 He has a girlfriend, it turns out. | Average: 8.7 |
| S15.6 He has a girlfriend, it happens. | Average: 5.0 |
| S15.7 He has a girlfriend, it so happens. | Average: 6.5 |

The significant differences in grammaticality here are reminiscent of the Vocative DP with PP favoring the left edge, but these are more difficult to explain. These inconclusive utterances, S15.4, S15.6, and S15.7 all have a similar structure, but so does the conclusively grammatical S15.3. With no obvious reason for this variation, I can say little as to why they vary, but note that it may be worth further study in the future.

*3.2 Elsewhere*

*3.2.1   After the First Subject*

In most cases, a Mitigatory PE may follow the first subject in an utterance. The exception, S18.20, demonstrates the confound of a dummy subject. It is somewhat

---

[3] The T-Test is utilized in this work for statistical significance. See Chapter 2: Methodology for calculation details.

expected that this confound results in inconclusivity given the similar data for Vocatives.

Examples showing this fact have been given here:

*(7) After the First Subject*

| | |
|---|---|
| S15.11 He, by the way, has a girlfriend. | Average: 8.9 |
| S53.8 She, apparently, is allergic to peanuts. | Average: 8.5 |
| S19.18 What he did, as it happens, I hate, but how he did it, I love. | Average: 7.0 |
| S22.5 That it was a bad idea, apparently, is obvious now. | Average: 7.2 |
| S25.14 The yard and the pool, as it happens, were in terrible condition. | Average: 7.4 |
| S26.1 John, as it turns out, came to the party and followed us to the afterparty. | Average: 8.3 |
| S18.20 There, as it turns out, were some good suggestions. | Average: 5.0 |

*3.2.2 Between the Verb and its DP Object*

Curiously, though most of the positional acceptance rates hold more or less true across the different Mitigatory PEs, there does seem to be an anomaly when it comes to the position between a verb and its DP complement. While all other Mitigatory PEs meet with inconclusive results here, "(as) it turns out" has met with distinctly grammatical judgments:

(8) *(As) It Turns Out*

| | |
|---|---|
| S14.12 He has, as it turns out, a girlfriend. | Average: 8.1 |
| S14.13 He has, it turns out, a girlfriend. | Average: 8.0 |

This unusual behavior may constitute a worthy subject of future research. At present, it is merely observed and noted.

*3.2.3 Embedded Clauses*

In the case of embedded clauses, the general trends remain true – the left and right edges are acceptable. The next most likely candidate, following the subject of the root clause, is also grammatical. Appearing before the Complementizer is permitted so long as the Complementizer is an overt one, but omitted Complementizers result in inconclusive or variable data. Attempts at following the Complementizer ranges from ungrammatical to inconclusive.

*(9) Embedded Clause Positions*

    a.  *Left Edge*

S27.1 Incidentally, Joe refused to answer the question because it was   Average: 9.1
    rude.
S27.10 By the way, the cat escaped because it wanted to play outside.  Average: 9.6

    b.  *Right Edge*

S27.9 Joe refused to answer the question because it was rude,        Average: 5.5
    incidentally.
S27.18 The cat escaped because it wanted to play outside, by the way.  Average: 6.9[4]
S67.1 Katie had to go to the store because we ran out of ice,         Average: 8.5
    apparently.
S67.2 Anna is worried because George was angry about the party,    Average: 7.0
    incidentally.

Here, the data are surprising when it comes to S27.9, which has a significantly lower score than the other utterances which have Mitigatory PEs at the right edge. The stark difference between the inconclusive S27.9 and the grammatical S67.2 may be

---

[4] Given the insignificant difference between S27.18's score of 6.9 and S67.2's score of 7.0, this utterance is considered grammatical in spite of its technically inconclusive score.

attributed to either the difference in structure in the host clause (i.e. the verb "refused" has its own CP complement before the "because" CP versus the comparatively simple S67.2's "worried" which has only one CP"), or a minor difference, 0.140 seconds, in pause length (i.e. before the parenthetical) as shown by (i) and (ii).

(i)     S27.9 Joe refused to answer the question because it was     Average: 5.5
        rude, incidentally.
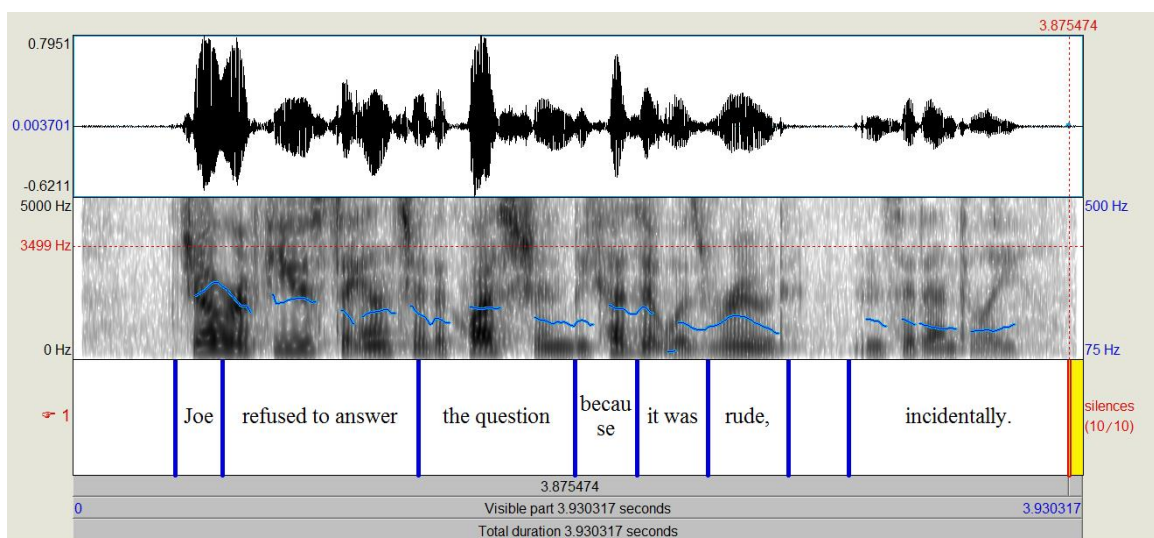


Sadly, the only comment on this utterance is less than helpful when it comes to clarifying the at-issue variable.

Comment:

    a.  One of the few times I think it sounds a bit awkward at the end for some reason

    (ii)    S67.2 Anna is worried because George was angry,   Average: 7.0
               about the party incidentally.
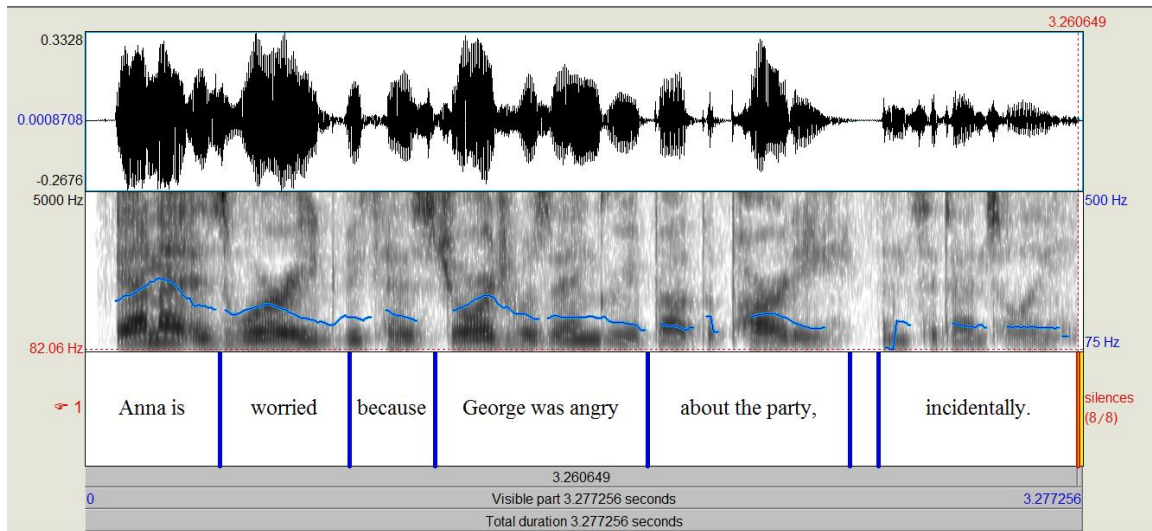


While only explicit testing in future research can conclusively determine the underlying reason for the difference in grammaticality, I am inclined to believe that an extra layer of complexity (i.e. three clauses[5] in an utterance instead of two) is the likely suspect rather than a 0.140 second difference in pause length. For this reason, as well as the fact that the other sentences are all grammatical, I judge this position to be generally grammatical for Mitigatory PEs.

    *c.  After first Subject*

S27.2 Joe, incidentally, refused to answer the question because it was   Average: 7.6
    rude.
S27.11 The cat, by the way, escaped because it wanted to play outside. Average: 8.5
S67.3 Katie, apparently, had to go to the store because we ran out      Average: 8.5
    of ice.

---

[5] Shuy (1998) stated that the average human can easily understand up to three levels of embedded clauses. It is possible that the three layers in combination with the addition of a parenthetical becomes too taxing and is thus rendered significantly less grammatical in the eyes (or ears) of the subjects.

### d.  Following the Embedded Subject(s)

S27.14 The cat escaped because it, by the way, wanted to play outside. Average: 3.2
S27.8 Joe refused to answer the question because it, incidentally, was   Average: 4.5
   rude.

### e.  After Verb(s)

S27.3 Joe refused, incidentally, to answer the question because it was   Average: 5.8
   rude.
S27.5 Joe refused to answer, incidentally, the question because it was   Average: 3.2
   rude.
S27.15 The cat escaped because it wanted, by the way, to play outside. Average: 4.8
S27.17 The cat escaped because it wanted to play, by the way, outside. Average: 3.5

### f.  After Tense

S27.16 The cat escaped because it wanted to, by the way, play outside. Average: 4.2
S27.4 Joe refused to, incidentally, answer the question because it was   Average: 3.8
   rude.

### g.  Before C

#### 1.  'For' C

S54.18 George was hoping, by the way, for the book to be forgotten.   Average: 8.0
S54.19 Fred wanted, apparently, for Karen to like the song.   Average: 7.0

#### 2.  'That' C

S54.20 Fred was proud, by the way, that Karen liked the song.   Average: 7.7
S55.1 George was angry, apparently, that the book was published.   Average: 8.4
S55.2 Fred forgot, by the way, that your dog needed food.   Average: 8.3

#### 3.  'Because' C

S27.20 The landlord turned off the electricity, apparently,   Average: 7.5
   because there was an emergency.
S27.12 The cat escaped, by the way, because it wanted to play outside. Average: 8.4
S27.6 Joe refused to answer the question, incidentally, because it was   Average: 6.9[6]
   rude.
S56.20 I think John is going to be there, it turns out, because Susan   Average: 7.2
is coming.

---

[6] The difference between S27.6 and S27.20 has been determined to be statistically insignificant, so it is reasonable to consider this position generally grammatical despite the presence of this single, technically "inconclusive" judgment.

  *h. After C*

    *1. 'For' C*

S55.4 George was hoping for, by the way, the book to be forgotten. Average: 5.6
S55.4 Fred wanted for, apparently, Karen to like the song. Average: 4.3

    *2. 'That' C*

S55.5 Fred was proud that, by the way, Karen liked the song. Average: 4.3
S55.6 Karen had heard that, apparently, George was angry. Average: 6.1
S55.7 Fred had hoped that, incidentally, George would forgive him. Average: 6.5

    *3. 'Because' C*

S27.13 The cat escaped because, by the way, it wanted to play outside. Average: 4.7
S27.7 Joe refused to answer the question because, incidentally, it was Average: 5.2
 rude
S27.19 The landlord turned off the electricity because, apparently, Average: 8.5
 there was an emergency.
S56.19 I think John is going to be there because, it turns out, Susan Average: 8.1
 is coming.

    Oddly, the data for following the "because" Complementizer of an embedded CP are noticeably variable. While it may be argued that these differences depend on the Mitigatory PE used on the basis of S27.13 vs. S56.19, the answer doesn't seem so simple. The significant difference between the grammaticality judgments of S27.19 and the structurally similar S27.7 suggests that whatever is at play is not structural. Next on the list of usual suspects is prosody, but an analysis of these utterances no obvious difference in intonation.

(i)  S27.13 The cat escaped because, by the way, it wanted     Average: 4.7
      to play outside.
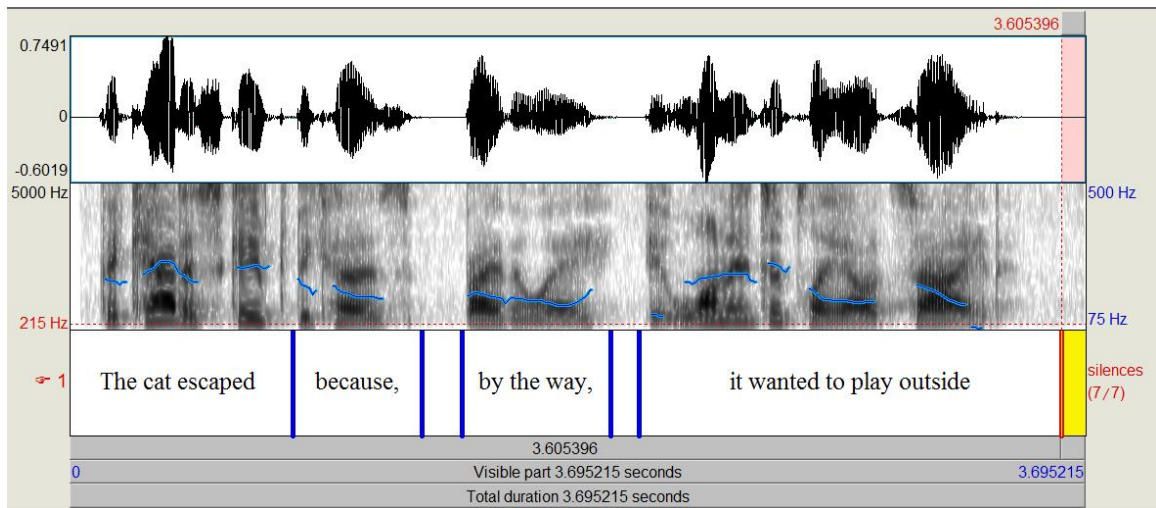


(ii)  S27.7 Joe refused to answer the question because,     Average: 5.2
       incidentally, it was rude
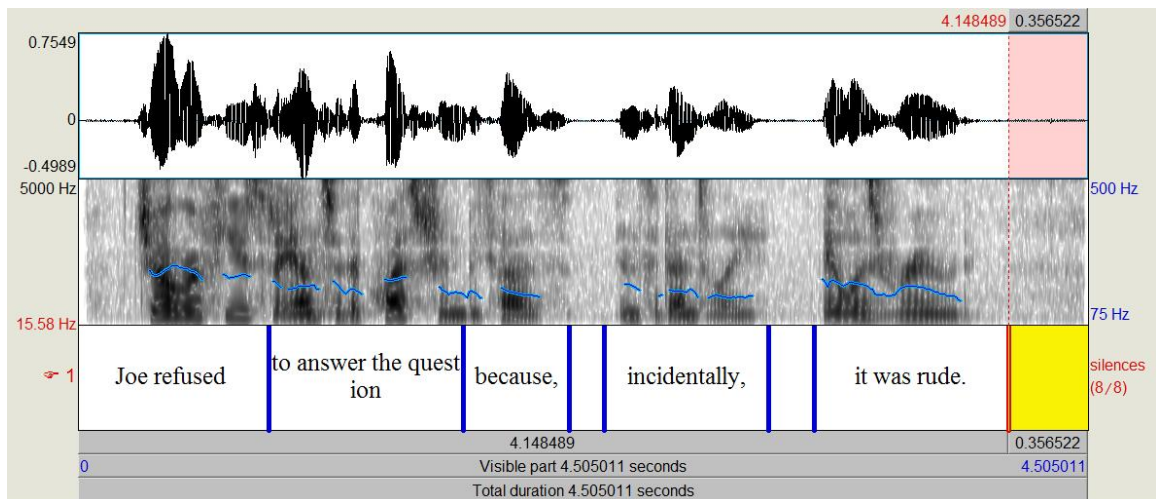
(iii)     S27.19 The landlord turned off the electricity because,          Average: 8.5
          apparently, there was an emergency
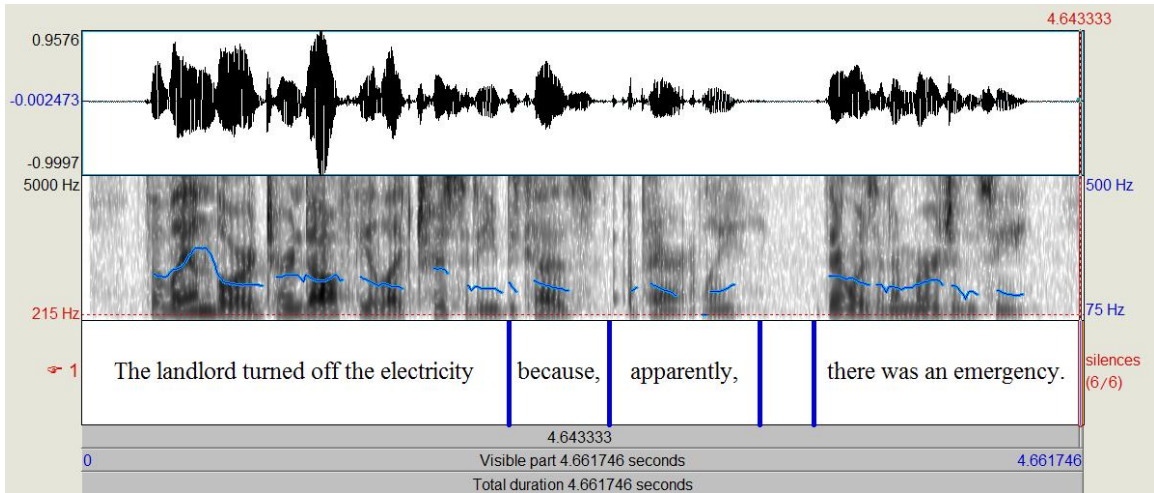


(iv)     S56.19 I think John is going to be there because,          Average: 8.1
          it turns out, Susan is coming.
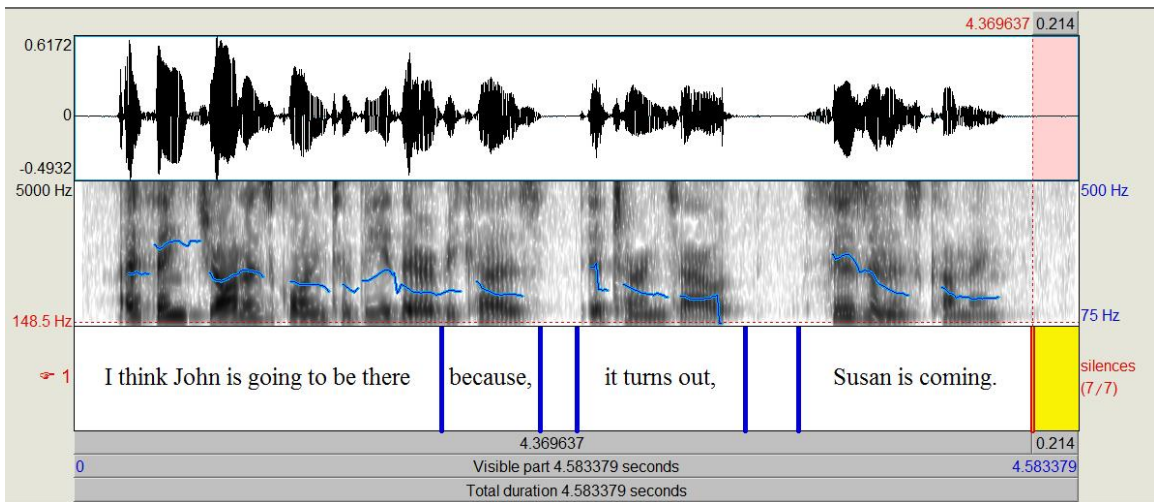


The pauses indicative of "comma intonation" (i.e. surrounding each parenthetical), while possibly appearing to vary in length, do so to seemingly insignificant degrees as shown by the following table.

*(v)*     *Pause Comparisons*

|  | Average | Pause before PE | Pause after PE |
|---|---|---|---|
| S27.13 | 4.7 | 0.17 seconds | 0.11 seconds |
| S27.7 | 5.2 | 0.14 seconds | 0.20 seconds |
| S27.19 | 8.5 | --- | 0.31 seconds |
| S56.19 | 8.1 | 0.17 seconds | 0.24 seconds |

While it is possible that a mere 0.06 second difference in pause length may result in the difference in grammaticality shown in S27.7 versus S56.19, that seems improbable. Therefore, the reason for the variability in grammaticality judgments remains a mystery to be solved by future research.

In summary, both edges, after the first subject, and before the embedded clause are grammatical, but the position following the Complementizer ranges from ungrammatical to inconclusive – with two exceptions for "because" CPs.

## 4. Interactions with Complex Structures and Movement Processes

*4.1 Contrastive Topicalization*

When Contrastive Topicalization is used, the usual suspects more or less hold true to their patterns: the left and right edges are acceptable, as is after the first subject. All other positions remain either unacceptable or inconclusive as shown by the following data.

(10)          *Contrastive Topicalization*

     a.  *Left Edge*

| | |
|---|---|
| S19.2 Incidentally, John I love, but Mary I hate. | Average: 8.8 |
| S19.16 By the way, Mondays, I can take or leave, but Wednesdays, I love. | Average: 8.9 |

     b.  *Right Edge*

| | |
|---|---|
| S19.1 Amanda, I love, but Mary I hate, incidentally. | Average: 6.9[7] |
| S19.6 Jazz I love but rock I hate, apparently. | Average: 7.9 |
| S19.15 Mondays, I can take or leave, but Wednesdays, I love, by the way. | Average: 8.2 |
| S19.17 What he did, I hate, but how he did it, I love, as it happens. | Average: 7.2 |

     c.  *After First [+focus] DP*

| | |
|---|---|
| S19.7 Jazz, apparently, I love but rock I hate. | Average: 6.6 |
| S19.18 What he did, as it happens, I hate, but how he did it, I love. | Average: 7.0 |
| S57.15 Green, as it turns out, I like, but pink, I hate. | Average: 6.4 |

The differences amongst these three test utterances are determined to be insignificant. However, given the fact that all of these scores are at the border between the "grammatical" and the "inconclusive" portions of the scale, I am not sufficiently confident to announce that this is a grammatical position with certainty. What is clear from the data is that this position is *more* grammatical than others, such as between the last subject and the last verb:

| | |
|---|---|
| S19.14 Mondays I can take or leave, but Wednesdays, I, by the way, love. | Average: 4.2 |

---

[7] The difference between S19.1 and S19.17 has been determined to be statistically insignificant, resulting in the verdict that this position is possible in general, if subject to some variation in grammaticality.

This fact may warrant more study in future works, but "potentially grammatical" is the only verdict which this position will be given at present.

### d. After Second [+focus]DP

| | |
|---|---|
| S19.4 Jazz I love, but rock, apparently, I hate. | Average: 6.6 |
| S19.13 Mondays I can take or leave, but Wednesdays, by the way, I love. | Average: 6.9 |
| S19.20 What he did, I hate, but how he did it, as it happens, I love. | Average: 7.5 |
| S57.16 Green, I like, but pink, as it turns out, I hate. | Average: 6.7 |

The differences between these utterances is determined to be statistically insignificant. Similar to its sister position, following the first [+focus] subject, following the second [+focus] subject may be *more* grammatical than other positions, but may or may not be classified as grammatical in general. Without more data and time to analyze this issue, I can only suggest this as a potential area of future research and render the verdict of "potentially grammatical" here.

### e. Before Coordinator

| | |
|---|---|
| S19.3 Jazz, I love, apparently, but rock I hate. | Average: 6.0 |
| S19.8 Dogs, I can tolerate, as it turns out, but cats I can't stand. | Average: 8.9 |
| S19.12 Mondays, I can take or leave, by the way, but Wednesdays I love. | Average: 7.5 |
| S19.19 What he did, I hate, as it happens, but how he did it, I love. | Average: 6.7 |

The difference between S19.3 and S19.8 is statistically significant according to the T-Test, as is the difference between S19.12 and S19.8 and between S19.3 and S19.12. However, the differences between S19.19 and S19.12, and S19.3 and S19.19 are not. Given

the mixed results ranging from inconclusive to grammatical, I would suggest that this position merits further study. At present, these observations will have to suffice.

### f.  After Coordinator

| | |
|---|---|
| S19.11 Mondays, I can take or leave, but, by the way, Wednesdays I love. | Average: 5.6 |
| S57.14 Green, I like, but, as it turns out, pink, I hate. | Average: 6.6 |

### g.  Other

| | |
|---|---|
| S19.5 Jazz I love, but rock I, apparently, hate. | Average: 5.2 |
| S19.9 Dogs, I, as it turns out, can tolerate, but cats, I can't stand. | Average: 5.1 |
| S19.10 Dogs, I can, as it turns out, tolerate, but cats, I can't stand. | Average: 5.3 |
| S19.14 Mondays I can take or leave, but Wednesdays, I, by the way, love. | Average: 4.2 |

### 4.2 Dummy Subjects

Dummy Subjects comprise some interesting data, representing a key exception to one of the general trends found in the study of PEs. As with Vocatives, cases in which the Mitigatory PE appears directly after the dummy subject range from ungrammatical to inconclusive. This constitutes the exception to the trend of grammaticality for PEs following the first subject.

### (11)    Dummy Subject Data

#### a.  Left Edge:

| | |
|---|---|
| S18.2 Incidentally, it started to snow. | Average: 8.9 |
| S18.5 As it turns out, it was raining. | Average: 9.8 |
| S18.10 By the way, it seemed like he knew what he was doing. | Average: 9.6 |
| S18.19 As it turns out, there were some good suggestions. | Average: 9.8 |

### b. Right Edge:

S18.1 It started to snow, incidentally.      Average: 8.3
S18.6 It was raining, as it turns out.      Average: 9.0
S18.9 It seemed like he knew what he was doing, by the way.      Average: 8.6
S18.18 There were some good suggestions, as it turns out.      Average: 9.3

### c. After the Dummy:

S18.3 It, incidentally, started to snow.      Average: 6.3
S18.7 It, as it turns out, was raining.      Average: 6.1
S18.11 It, by the way, seemed like he knew what he was doing.      Average: 4.4
S18.20 There, as it turns out, were some good suggestions.      Average: 5.0

### d. Between V and Complement:

S18.4 It started, incidentally, to snow.      Average: 5.6
S18.8 It was, as it turns out, raining.      Average: 6.0
S18.14 It seemed like he knew, by the way, what he was doing.      Average: 3.8
S18.17 It seemed like he knew what he was, by the way, doing.      Average: 2.5

### e. Other

S18.15 It seemed like he knew what, by the way, he was doing.      Average: 3.9
S18.12 It seemed like, by the way, he knew what he was doing.      Average: 5.0
S18.13 It seemed like he, by the way, knew what he was doing.      Average: 4.1
S18.16 It seemed like he knew what he, by the way, was doing.      Average: 3.5

### 4.3 CP Subject Formation

CP Subject Formation interacts in an interesting way with PEs. Unlike with Vocatives, Mitigatory PEs are acceptable in several positions, even with the confound of CP Subject formation:

(12)        *CP Subject Formation*

       *a.   Left Edge:*

| | |
|---|---|
| S22.2 Apparently, that it was a bad idea is obvious now. | Average: 8.3 |
| S22.9 As it turns out, for him to go to the party, we would have to bribe him. | Average: 9.3 |
| S22.17 By the way, that she would lie to us is hard to believe. | Average: 8.7 |

       *b.  Right Edge:*

| | |
|---|---|
| S22.8 For him to go to the party, we would have to bribe him, as it turns out. | Average: 8.6 |
| S22.1 That it was a bad idea is obvious now, apparently. | Average: 7.5 |
| S23.5 That she would lie to us is hard to believe, by the way. | Average: 9.1 |

       *c.  After Fronted CP*

| | |
|---|---|
| S22.12 For him to go to the party, as it turns out, we would have to bribe him. | Average: 7.7 |
| S22.5 That it was a bad idea, apparently, is obvious now. | Average: 7.2 |
| S22.19 That she would lie to us, by the way, is hard to believe. | Average: 8.2 |

       *d.  After first Subject within Fronted CP*

| | |
|---|---|
| S22.3 That it, apparently, was a bad idea is obvious now. | Average: 5.9 |
| S22.10 For him, as it turns out, to go to the party, we would have to bribe him. | Average: 5.8 |
| S22.18 That she, by the way, would lie to us is hard to believe. | Average: 5.3 |

       *e.  Between Main Verb and Object*

| | |
|---|---|
| S23.3 That she would lie to us is, by the way, hard to believe. | Average: 6.3 |
| S22.6 That it was a bad idea is, apparently, obvious now. | Average: 7.1 |
| S70.18 That John bought a cat is, by the way, surprising. | Average: 5.2 |
| S70.19 That Susan was injured, incidentally, was unexpected. | Average: 5.1 |
| S53.16 That George was angry was, by the way, clear. | Average: 5.1 |
| S53.17 That George was angry was, apparently, clear. | Average: 5.4 |

The data for this position constitute a curious lot. Nearly all of the utterances are inconclusive, but S22.6 is technically grammatical. The differences in judgment between the structurally similar S22.6 and S53.16 (and the others for that matter) is unexpected.

Even investigation into the intonation has met with no obvious differences to account for this anomalous rating.

(i)  S23.3 That she would lie to us is, by the way, hard to believe.   Average: 6.3
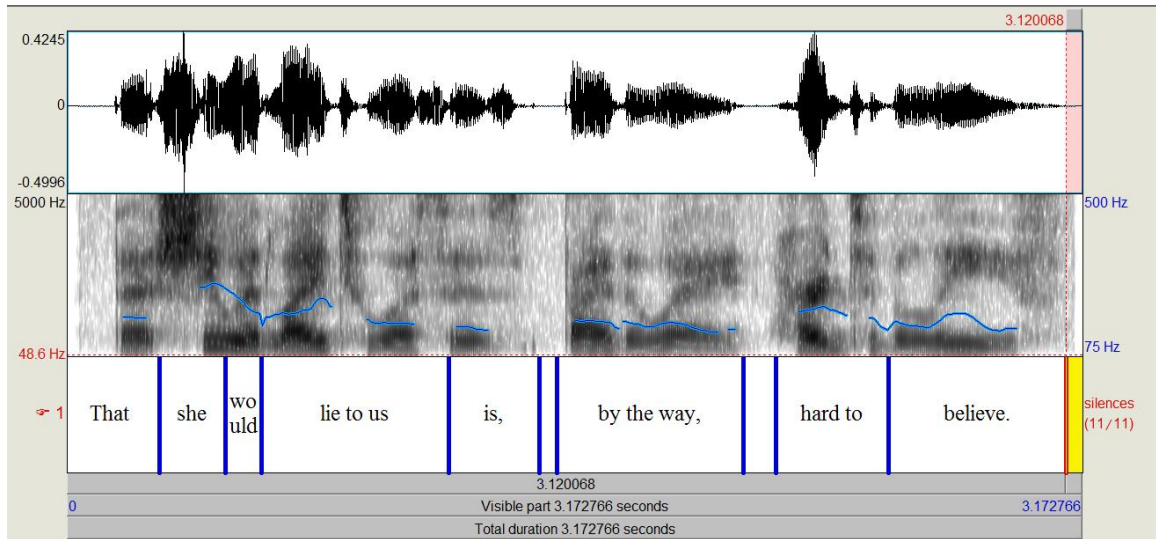


(ii)  S22.6 That it was a bad idea is, apparently, obvious now.   Average: 7.1
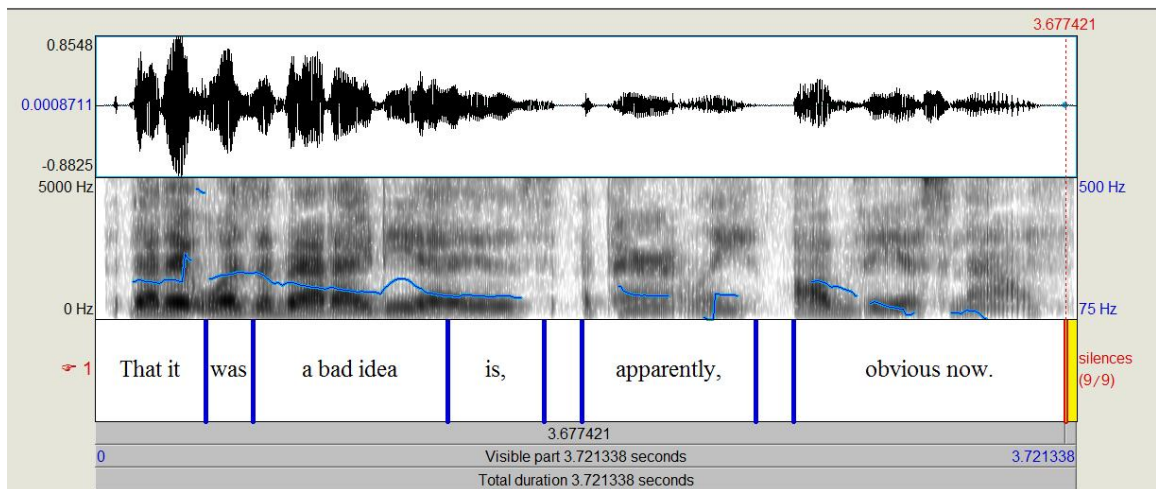
(iii)     S53.16 That George was angry was, by the way, clear.   Average: 5.1
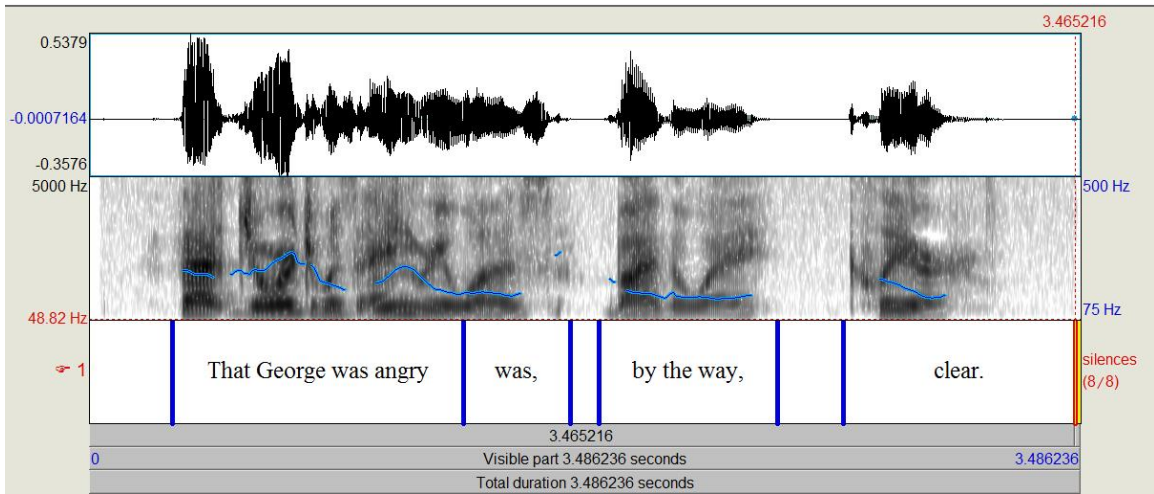


(iv)     S53.17 That George was angry was, apparently, clear.   Average: 5.4
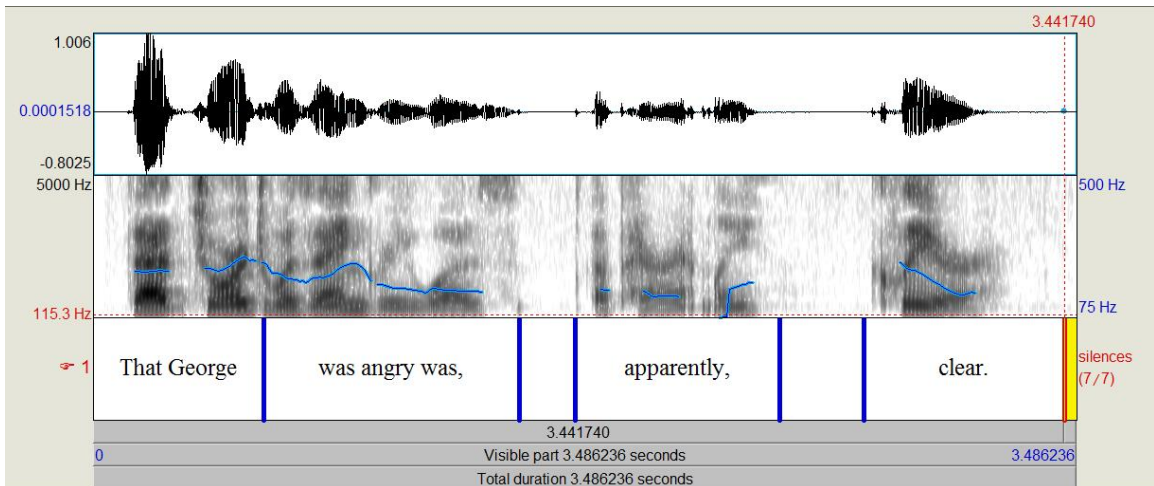
(v)     S70.18 That John bought a cat is, by the way, surprising.     Average: 5.2
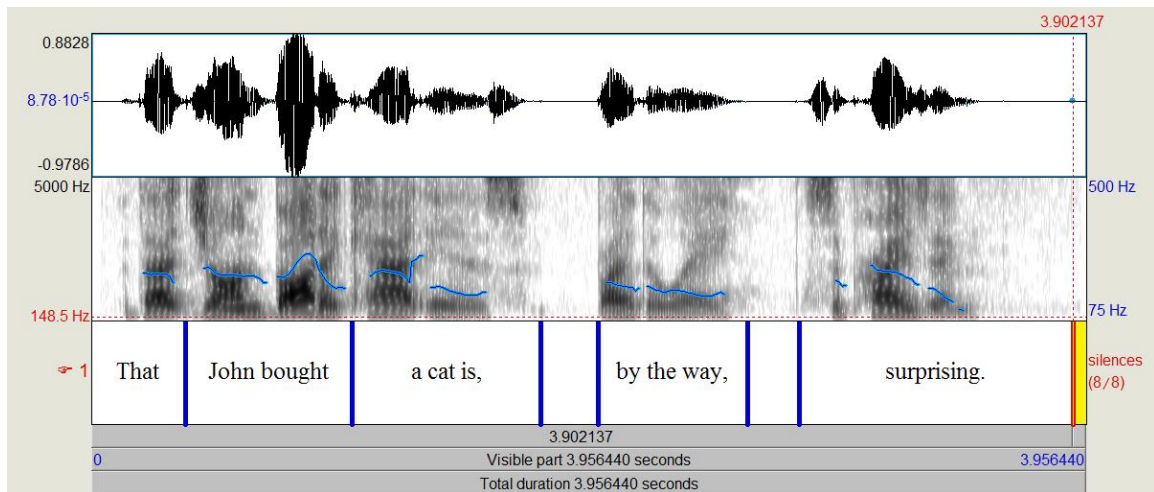


(vi)     S70.19 That Susan was injured, incidentally, was unexpected.   Average: 5.1
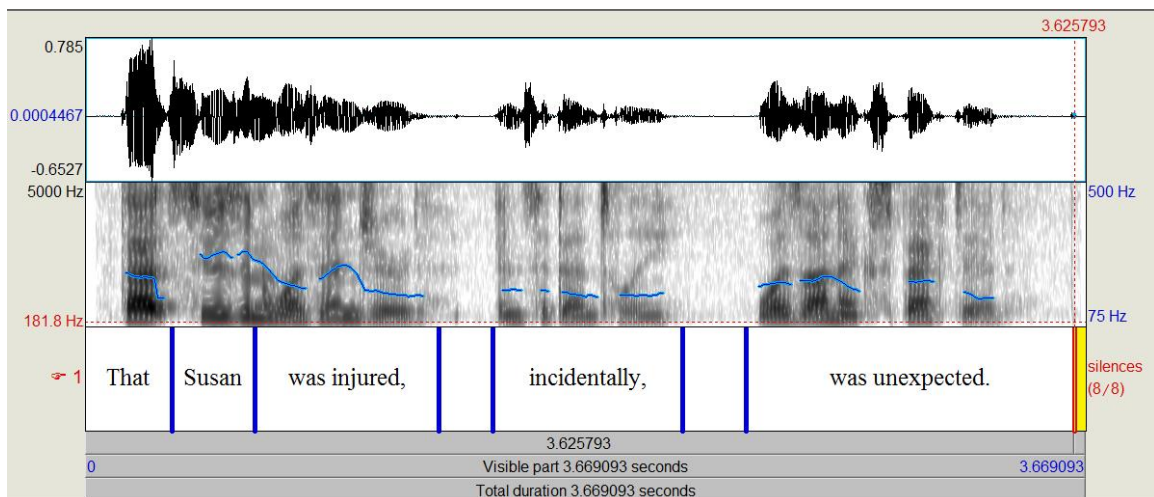


Without stark differences in the structure or intonation between these utterances, the grammatical 7.1 average of S22.6 remains mysterious and may merit future research. At present, "potentially grammatical" is the only label that can be confidently applied.

*f.  Between Aux and Secondary Verb*

S22.4 That it was, apparently, a bad idea is obvious now.                     Average: 6.2

S22.11 For him to go, as it turns out, to the party, we would          Average: 4.0
     have to bribe him.

S22.13 For him to go to the party, we would, as it turns out, have     Average: 6.2
     to bribe him.

*g.  Between Verb and Object*

S22.15 For him to go to the party, we would have to bribe, as it       Average: 1.6
     turns out, him.

S53.20 For George to forgive, by the way, Fred would take a lot.       Average: 3.4

*h.  After Tense*

S22. 16 For him to, as it turns out, go to the party, we would         Average: 4.2
     have to bribe him.

S22.14 For him to go to the party, we would have to, as it turns       Average: 5.7
     out, bribe him.

S23.4 That she would lie to us is hard to, by the way, believe.        Average: 3.4

S23.1 That she would lie to, by the way, us, is hard to believe.       Average: 3.0

*i.  Other*

S22.20 That she would lie to us is hard, by the way, to believe.       Average: 4.4

S23.2 That she would, by the way, lie to us is hard to believe.        Average: 4.2

S22.7 That it was a bad idea is obvious, apparently, now.              Average: 3.5

*4.4 WH Words*

It is notable that, unlike Vocatives which are acceptable at the edges even when WH phrases are involved, Mitigatory PEs are nearly categorically unacceptable in utterances that involve WH questions. The few potential exceptions seem to be at edges, and, in the case of "by the way", directly after the WH word or phrase. Relative clauses,

on the other hand, exhibit more grammatical positions – the edges and following the first subject.

(13)    [+Q]

　　　a.  Left Edge

S21.5 By the way, where did he move?　　　　　　　　　Average: 9.8
S21.6 As it turns out, when did she go to the store?　　　Average: 4.4
S21.8 Incidentally, which car is yours?　　　　　　　　Average: 7.9
S21.11 Apparently, which movie should we see?　　　　　Average: 3.9
S21.17 As it happens, where did he go?　　　　　　　　Average: 6.6

The differences between these utterances are statistically significant, with the exceptions of the difference between S21.6 and S21.11, and S21.6 and S21.17. The clearly grammatical examples of S21.5 and S21.8 show that this position is possible, if dependent upon the use of certain Mitigatory PEs rather than others. This is an area which would benefit from further study in the future.

　　　b.  Right Edge

S21.1 Where did he move, by the way?　　　　　　　　　Average: 9.2
S21.7 When did she go to the store, as it turns out?　　　Average: 3.8
S21.10 Which car is yours, incidentally?　　　　　　　　Average: 6.2
S21.15 Which movie should we see, apparently?　　　　　Average: 3.8
S21.16 Where did he go, as it happens?　　　　　　　　Average: 5.1

Similarly, the differences in grammaticality here are notable. "By the way" is clearly permitted as evidenced by S21.1, but the others range from ungrammatical to inconclusive. While these observations are curious and may merit future study, for now the label of "potentially grammatical" will have to suffice for the edges.

      *c.  After Subject*

S21.4 Where did he, by the way, move?                     Average: 3.6
S21.20 Where did he, as it happens, go?               Average: 3.3
S21.13 Which movie should we, apparently, see?        Average: $5.0^{8}$

      *d.  After WH*

S21.2 Where, by the way, did he move?               Average: 6.7
S21.18 Where, as it happens, did he go?               Average: 5.0
S21.9 Which car, incidentally, is yours?               Average: 4.7
S21.12 Which movie, apparently, should we see?      Average: 3.9

      *e.  Other*

S21.3 Where did, by the way, he move?               Average: 3.7
S21.14 Which movie should, apparently, we see?      Average: 3.7
S21.19 Where did, as it happens, he go?            Average: 2.6

*(14)      [+R]*

      *a.  Left Edge*

S54.1 By the way, I'm not sure which book Fred recommended.    Average: 9.5
S54.7 Apparently, Karen was not sure who told her the story.   Average: 9.5

      *b.  Right Edge*

S54.6 I am not sure which book Fred recommended, by the way.   Average: 8.4
S54.11 Karen was not sure who told her the story, apparently.   Average: 8.7

      *c.  After First Subject*

S54.2 I, by the way, am not sure which book Fred recommended.  Average: 7.3
S54.8 Karen, apparently, was not sure who told her the story.   Average: 8.2

      *d.  After [+R] WH Word*

S54.4 I am not sure which, by the way, book Fred recommended.  Average: 3.7
S54.10 Karen was not sure who, apparently, told her the story.  Average: 4.6

---

[8] The difference between S21.13 and S21.4 is statistically insignificant; therefore, this position is considered ungrammatical.

e. *After [+R] WH Phrase*

S54.5 I am not sure which book, by the way, Fred recommended.      Average: 5.4
S56.17 Susan knows which truck, incidentally, is ours.      Average: 7.7
S57.17 He forgot which piano, as it turns out, is broken.      Average: 4.5
S57.18 He forgot which piano, apparently, is broken.      Average: 5.4

The notable thing about this set of data is that the difference between S56.17 and the others are statistically significant. This is curious given the similarity between the structures of S56.17 and S57.17. It is possible that the difference here is not what type of Mitigatory PE is used, but rather the positivity versus negativity is used (i.e. "Susan knows.." versus "He forgot.."). This is yet another curious data point which may merit future research. At present, calling this position's grammaticality "variable" will have to do. As for the curious data presented by "by the way", this may be resultant from mis-categorization – if its behavior patterns in a way which is notably different from other Mitigatory PEs, the question as to whether or not it is truly a Mitigatory PE must follow.

*4.5 Auxiliary Verb Chains*

Even when the complex structure of an auxiliary chain is involved, Mitigatory PEs can be found in few token locations.

(15)     *Auxiliary Chains*

    a. *Left Edge*

| | |
|---|---|
| S56.18 Apparently, he could have been a famous actor. | Average: 9.8 |
| S57.19 As it turns out, John might have been taking dance lessons. | Average: 8.8 |

    b. *Right Edge*

| | |
|---|---|
| S20.1 She will be going to college next fall, incidentally. | Average: 7.7 |
| S20.11 It is possible that he could have been at the party, by the way. | Average: 9.0 |

    c. *After First Subject*

| | |
|---|---|
| S56.16 He, apparently, could have been a famous actor. | Average: 8.6 |
| S56.17 John, incidentally, might have been at the same school. | Average: 8.4 |

    d. *Between First and Second Auxiliaries*

| | |
|---|---|
| S20.1 She will, incidentally, be going to college next fall. | Average: 7.7 |
| S20.6 He had, as it happens, been planning to move, but it didn't work out. | Average: 6.6 |
| S20.8 It is possible that he could, by the way, have been at the party. | Average: 7.3 |

While the difference between S20.1 and S20.6 is statistically significant, the difference between S20.8 and S20.6 is not. Given this, I would suggest that this is a generally grammatical location which may or may not be subject to variation in grammaticality depending on which Mitigatory PE is used.

    e. *Between Second Auxiliary and Verb*

| | |
|---|---|
| S20.3 She will be, incidentally, going to college next fall. | Average: 6.0 |
| S20.7 He had been, as it happens, planning to move, but it didn't work out. | Average: 6.4 |
| S20.9 It is possible that he could have, by the way, been at | Average: 6.3 |

the party.

    *f.   Between Verb and its Complement*

| | |
|---|---|
| S20.4 She will be going, incidentally, to college next fall. | Average: 5.9 |
| S20.10 It is possible that he could have been, by the way, at the party. | Average: 5.0 |
| S20.5 He had been planning, as it happens, to move, but it didn't work out. | Average: 7.1 |
| S67.4 Karen might have been buying, apparently, the book. | Average: 4.2 |

While sporting similar words, the structures of S20.4 and S20.5 are different. S20.4 bears a PP "to college" whereas S20.5 has a CP with an omitted Complementizer and subject (i.e. He had been planning $_{CP}$[ ~~for~~ $_{TP}$[ $_{DP}$[ ~~himself~~ ] to move]…]). The difference in grammaticality may be reflecting this difference. Thus, the grammatical form is not so much after the verb as it is before the embedded CP, which has been proven grammatical (see Section 3.2.3). Only further research could confirm this supposition, but based off of the other forms, this position can be ruled generally ungrammatical, with a possible caveat for CP complements.

    *4.6 PP Chains*

The most expected places (i.e. the edges and after the first subject) are still acceptable even when PP chains are introduced. Additionally, Mitigatory PEs are still acceptable between the 2nd PP and the 3rd PP in a PP chain.

*(16)*     *PP Chains*

    a.  *Left Edge*

S57.1 By the way, I am going to Australia by ship on vacation    Average: 9.0
   this summer.
S57.2  Apparently, Susan was waiting for him at the bus stop for three  Average: 9.4
   hours in the rain.
    b.  *Right Edge*

S20.13 It is possible that he could have been at the party     Average: 9.3
   on Tuesday, by the way.
S20.16 She got lost on the way to the house, apparently.     Average: 9.7
S20.14 It is possible that he could have been at the party     Average: 8.0
   on Tuesday for a while, by the way.
S20.18 She got lost on the way to the house for two hours,     Average: 9.1
   apparently.

    c.  *After First Subject*

S57.3  I, by the way, am going to Australia by ship on vacation    Average: 7.5
   this summer.
S57.4 Susan, apparently, was waiting for him at the bus stop for three  Average: 7.8
   hours in the rain.
S57.20 I, incidentally, will be going to Australia by ship on vacation  Average: 7.5
   this summer.

    d.  *After 1$^{st}$ PP*

S20.12 It is possible that he could have been at the party,    Average: 5.9
   by the way, on Tuesday.
S20.19 She got lost on the freeway, apparently, for two hours   Average: 6.6
   on the way to the house.
    e.  *After 2$^{nd}$ PP*

S20.20 She got lost on the freeway for two hours, apparently,   Average: 7.0
   on the way to the house.
S20.17 She got lost on the way to the house, apparently,    Average: 7.5
   for two hours.
S20.15 It is possible that he could have been at the party    Average: 4.4
   on Tuesday, by the way, for a while.


    The exception for this position, S20.15, involves the confound of an Auxiliary chain.

For this reason, it is dismissible for now and this position is deemed grammatical. Such

utterances with multiple structural confounds may be of interest for future study, but will

not be probed further in this current work.

### 4.7 Coordinated Structures

### 4.7.1 Coordinated DPs

Mitigatory PEs are acceptable at the edges and following the first subject – even

when that subject is a coordinated DP. Other positions, including inserting Mitigatory PEs

into the coordinated structure are ungrammatical.

*(17)        Coordinated DPs*

    a.  *Left Edge*

S25.2 Incidentally, John and Mary are coming to the party.            Average: 8.1
S25.10 As it happens, the yard and the pool were in terrible condition.  Average: 8.8

    b.  *Right Edge*

S25.9 The yard and the pool were in terrible condition, as it happens.  Average: 6.4
S25.18 The yard and the pool were in terrible condition, as it          Average: 8.9
  turns out.
S67.5 Anna and Katie are going to the party, apparently.            Average: 8.7

The data yielded for Mitigatory PEs at the right edge when a coordinated DP is the

subject are surprising. While S25.18 and S67.5 are clearly grammatical, S25.9 shows an

inconclusive score. Given the structural similarities to the other utterances, particularly

S25.18, this seems odd. A survey of the suprasegmental level shows that the intonation

appears unchanged.

(i)      S25.9 The yard and the pool were in terrible condition, as it happens.
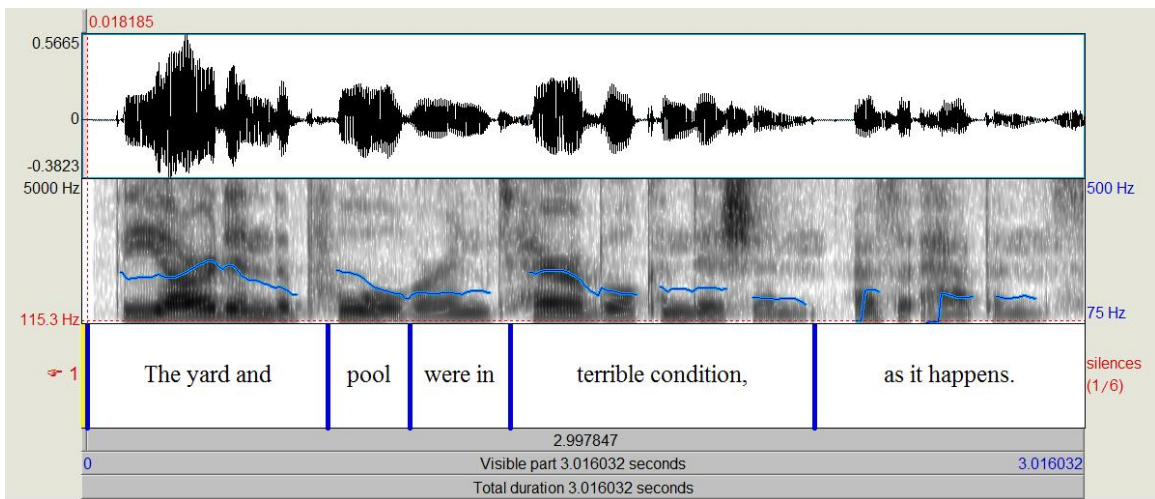


(ii)     S25.18 The yard and the pool were in terrible condition, as it     Average: 8.9
         turns out.
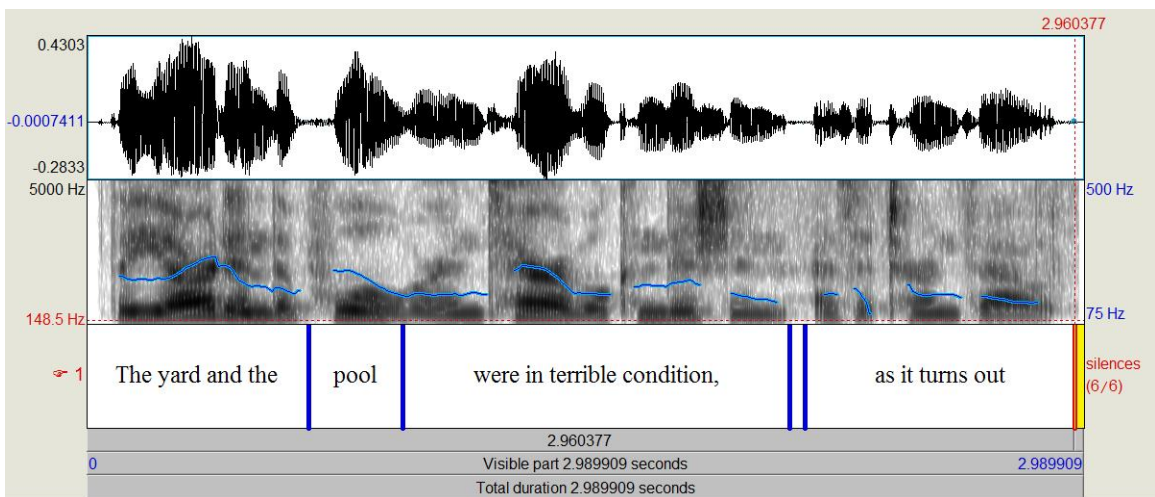


Given the lack of stark differences in intonation, one might be inclined to consider

the idea that the particular PEs used are at issue. While that is always possible, I do not

believe it to be probable. Instead, I would posit that this is due to human error in the

recording process. The recording of S25.9 involves a less formal pronunciation of "the yard and the pool" which sounds similar to "the yard in the pool". It is possible that the subjects misunderstood the utterance and have judged it accordingly. Of interest here, is the fact that this utterance, S25.9, is the first in the survey to use this host (i.e. "The yard and the pool were in terrible condition"). In light of these facts, I am inclined to consider this position grammatical for Mitigatory PEs and deem the inconclusivity of S25.9 a result of error in the recording stage. Of course, only further research could confirm this inference.

### c. After Coordinated DP Subject

S25.1 John and Mary, incidentally, are coming to the party.                     Average: 7.7
S25.14 The yard and the pool, as it happens, were in terrible                   Average: 7.4
    condition.

### d. Before Coordinator

S25.3 John, incidentally, and Mary are coming to the party.                     Average: 4.3
S25.11 The yard, as it happens, and the pool were in terrible                   Average: 5.9
    condition.

### e. After Coordinator

S25.4 John and, incidentally, Mary, are coming to the party.                    Average: 3.2
S25.12 The yard and, as it happens, the pool were in terrible                   Average: 4.3
    condition.

### f. After Verb

S25.6 John and Mary are coming, incidentally, to the party.                     Average: 4.2
S25.15 The yard and the pool were, as it happens, in terrible                   Average: 5.8
    condition.

g.  *Other*

| | |
|---|---|
| S25.5 John and Mary are, incidentally, coming to the party. | Average: 6.2 |
| S25.7 John and Mary are coming to, incidentally, the party. | Average: 2.8 |
| S25.8 John and Mary are coming to the, incidentally, party. | Average: 1.9 |
| S25.13 The yard and the, as it happens, pool were in terrible condition. | Average: 3.1 |
| S25.16 The yard and the pool were in, as it happens, terrible condition. | Average: 4.3 |
| S25.17 The yard and the pool were in terrible, as it happens, condition. | Average: 2.1 |

### *4.7.2 Coordinated VPs*

The left edge remains acceptable, even when coordinated VPs are involved, as does the position after the first subject. The right edge is unexpectedly murky. Unlike coordinated DPs, coordinated VPs appear to be interruptible – the positions before and after the coordinator within the coordinated VP structure are grammatical. The only possible exceptions are cases in which the coordinated VP are part of an embedded clause. It is possible that these multiple confounds (i.e. coordinated VPs, an embedded clause, and the presence of a parenthetical) simply pose too much of a challenge to process at once.[9]

(18)      *Coordinated VPs*

a.  *Left Edge*

| | |
|---|---|
| S25.20 As it turns out, John came to the party and followed us to the afterparty. | Average: 9.5 |
| S26.7 Incidentally, Ben talked all night and annoyed all the guests. | Average: 8.6 |
| S55.16 Apparently, George hoped that Fred would apologize and destroy the book. | Average: 9.3 |

---

[9] Shuy (1998:57) stated that that humans have difficulty processing utterances with more than three layers of embedding. It is possible that these processes in combination are equally taxing.

*b. Right Edge*

| | |
|---|---|
| S25.19 John came to the party and followed us to the afterparty, as it turns out. | Average: 6.8 |
| S26.9 Ben talked all night and annoyed all the guests, incidentally. | Average: 6.1 |
| S67.8 Fred adopted a dog and bought a new car, incidentally. | Average: 6.6 |
| S67.6 Katie heard that Fred adopted a dog and bought a new car, apparently. | Average: 7.9 |
| S67.7 Anna mentioned that George was angry and called the police, as it turns out. | Average: 7.3 |

While the data for the right edge may appear to vary based upon whether or not the coordinated VP is present in a simple or embedded clause, the T-Test shows that the differences between the inconclusive S25.19, S26.9, S67.8, and the grammatical S67.7 are statistically insignificant. Therefore, according to the statistics, if the clause structure of the host plays a role in grammaticality here, it does so to an insignificant degree.

*c. After First Subject*

| | |
|---|---|
| S26.1 John, as it turns out, came to the party and followed us to the afterparty. | Average: 8.3 |
| S26.8 Ben, apparently, talked all night and annoyed all the guests. | Average: 9.0 |

*d. Before Coordinator*

| | |
|---|---|
| S26.3 John came to the party, as it turns out, and followed us to the afterparty. | Average: 7.8 |
| S26.11 Ben talked all night, apparently, and annoyed all the guests. | Average: 8.0 |
| S67.9 Katie heard that Fred adopted a dog, apparently, and bought a new car. | Average: 6.3 |
| S67.10 Anna mentioned that George was angry, incidentally, and called the police. | Average: 6.3 |
| S55.12 Fred saw Karen see Susan, incidentally, and hide behind a door. | Average: 4.8 |

Unlike the variations present in the grammaticality judgments at the right edge when coordinated VPs are involved, the position before the coordinator varies in

grammaticality to a significant degree. The cases in which the coordinated VP is present in a subordinate/embedded clause bear a statistically significantly lower average rate of grammaticality. Therefore, this position is only deemed grammatical when the coordinated VP is not in an embedded clause.

### e. After Coordinator

| | |
|---|---|
| S26.4 John came to the party and, as it turns out, followed us to the afterparty. | Average: 7.3 |
| S26.12 Ben talked all night and, incidentally, annoyed all the guests. | Average: 6.9[10] |
| S67.12 George was angry and, incidentally, called the police. | Average: 6.7[11] |
| S67.11 Katie heard that Fred adopted a dog and, apparently, bought a new car. | Average: 7.7 |

### f. After Complementizer

| | |
|---|---|
| S67.14 Katie heard that, apparently, Fred adopted a dog and bought a new car. | Average: 7.3 |
| S67.15 Anna mentioned that, incidentally, George was angry and called the police. | Average: 5.9 |

While the difference between the inconclusive S67.15 and the grammatical S67.14 is statistically significant, the cause of the variance is less clear. The two have nearly identical structures and very similar prosody as shown by (i) and (ii):

---

[10] The difference between S26.12's average, 6.9, and S26.4's grammatical one, 7.3, is statistically insignificant. Therefore, this position is deemed grammatical with no further discussion.

[11] The difference between S67.12's average, 6.7, and S26.4's grammatical one, 7.3, is statistically insignificant. Therefore, this position is deemed grammatical with no further discussion.

(i)   S67.14 Katie heard that, apparently, Fred adopted a dog          Average: 7.3
       and bought a new car.
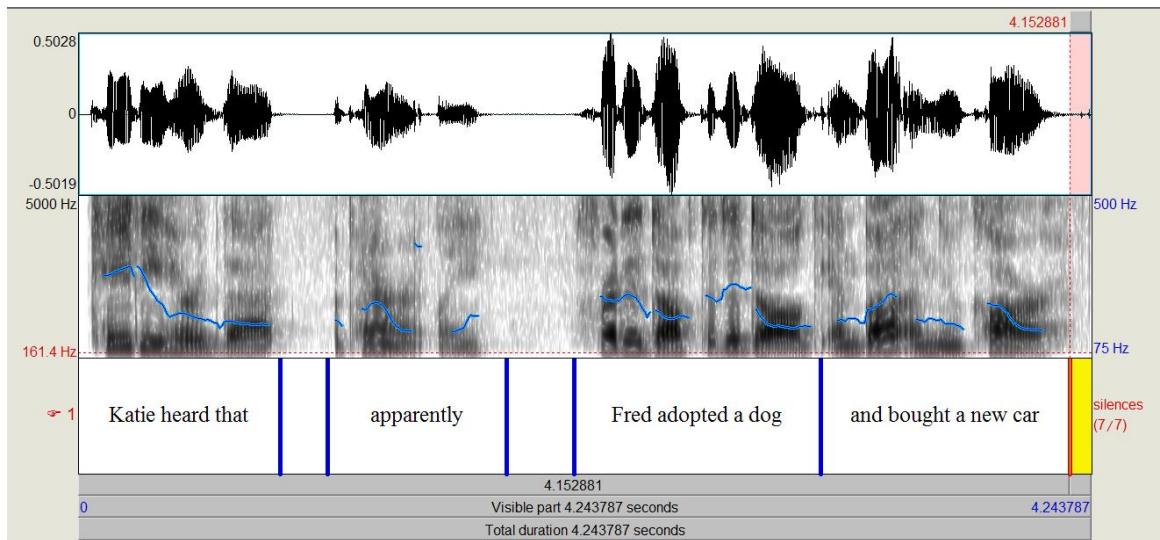


(ii)  S67.15 Anna mentioned that, incidentally, George          Average: 5.9
       was angry and called the police
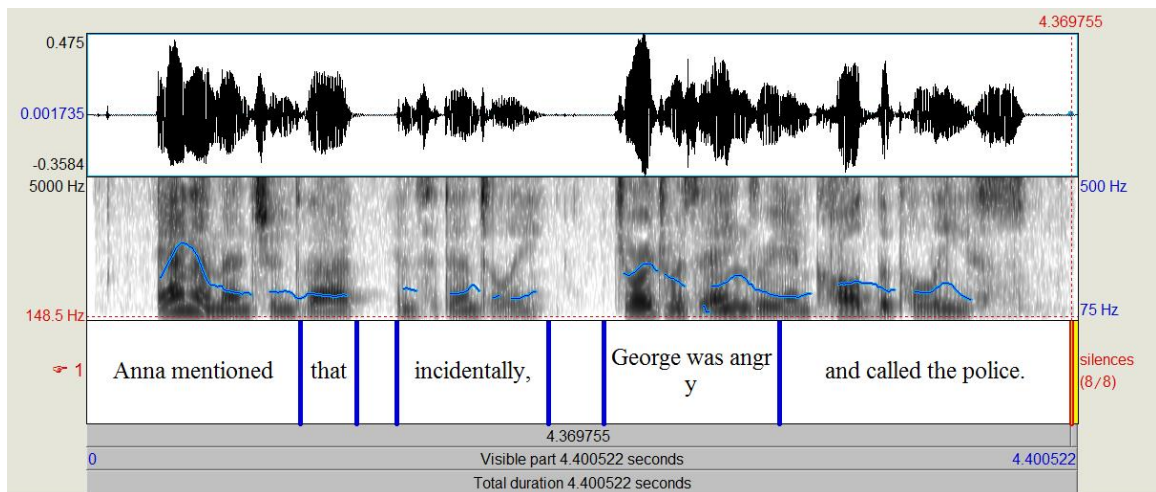


Despite these similarities, the statistical gap in grammaticality judgments remains. It is possible that the difference is due to the particular PE used – "incidentally". One subject's comment may suggest this is the key variable:

(iii)    S67.15 Anna mentioned that, incidentally, George          Average: 5.9
         was angry and called the police

Comments:

    a.  weird place to put incidentally in my opinion

In any case, what is known is that the difference is notable. This issue may merit future

investigation, but at present, it remains unclear.

    g.  *Other*

S26.2 John came, as it turns out, to the party and followed us to          Average: 4.6
    the afterparty.
S26.10 Ben talked, incidentally, all night and annoyed all the guests.     Average: 3.8
S26.5 John came to the party and followed, as it turns out, us to          Average: 2.5
    the afterparty.
S26.6 John came to the party and followed us, as it turns out, to the      Average: 5.8
    afterparty.
S26.13 Ben talked all night and annoyed, apparently, all the guests.       Average: 4.4

### *4.7.3 Coordinated TPs*

When coordinated TPs are present, the left and right edges are acceptable as per

usual. As with coordinated VPs, the positions before and after the coordinator (inside the

coordinated structure) are grammatical. Following the first subject is also grammatical, but

following the subject of the second TP are inconclusive.

(19)  *Coordinated TPs*

      a.  *Left Edge*

S26.17 Incidentally, he heard that Bill would leave and Susan would   Average: 8.6
    stay

S57.9 Apparently, George is angry with Fred and Karen is avoiding   Average: 9.2
    Susan.

S57.10 By the way, I heard that George is angry with Fred and Karen   Average: 8.9
    is avoiding Susan.

      b.  *Right Edge*

S26.14 He heard that Bill would leave and Susan would stay,   Average: 7.9
    apparently.

S57.11 George is angry with Fred and Karen is avoiding Susan,   Average: 7.1
    apparently

S57.12 I heard that George is angry with Fred and Karen is avoiding   Average: 6.5
    Susan, by the way.

      c.  *After First Subject*

S57.5 George, apparently, is angry with Fred and Karen is avoiding   Average: 7.5
    Susan.

S57.6 I, by the way, heard that George is angry with Fred and Karen   Average: 7.1
    is avoiding Susan.

      d.  *Before Coordinator*

S55.9 George was angry with Fred, apparently, and Karen was   Average: 8.9
    avoiding Susan.

S57.13 Katie is at the work, by the way, and Fred is at the bookstore.   Average: 7.3

S55.8 Katie heard that George was angry with Fred, apparently,   Average: 8.0
    and Karen was avoiding Susan.

S26.18 He heard that Bill would leave, incidentally, and Susan would   Average: 4.7
    stay.

The significant difference in grammaticality between S26.18 and the others is notable. Given the similarity of structure between S55.8 and S26.18, it seems as if the confound of the coordinated TPs presenting as part of an embedded CP is not the variable which is resulting in the difference in grammaticality. However, an investigation into the

prosodic elements of these utterances shows a difference in intonation − for the grammatical S55.8, the subject "Katie" was stressed rather than the verb "heard". For the ungrammatical S26.18, the opposite is true.

(i)      S55.8 Katie heard that George was angry with Fred,                Average: 8.0
         apparently, and Karen was avoiding Susan.
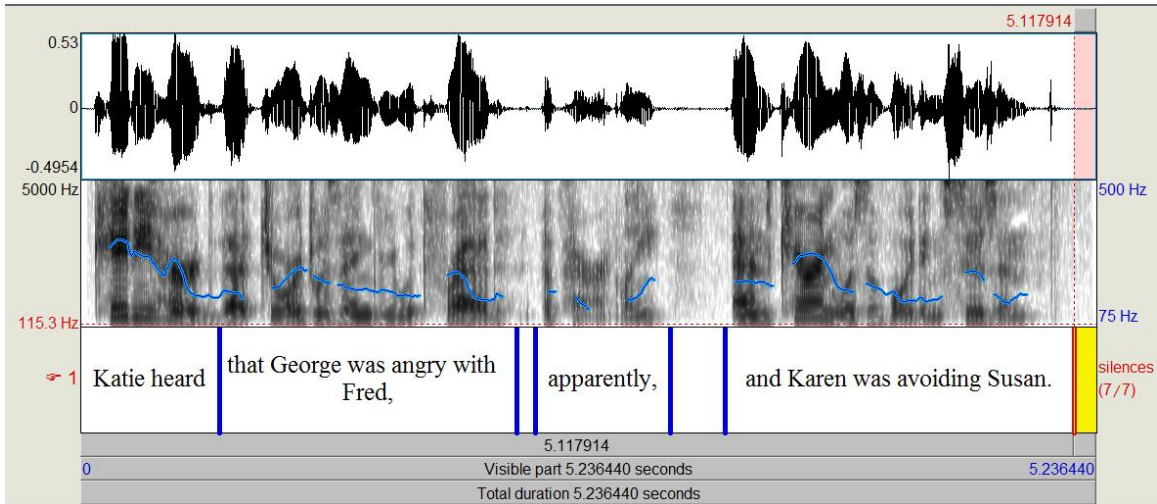


(ii)     S26.18 He heard that Bill would leave, incidentally,             Average: 4.7
         and Susan would stay.
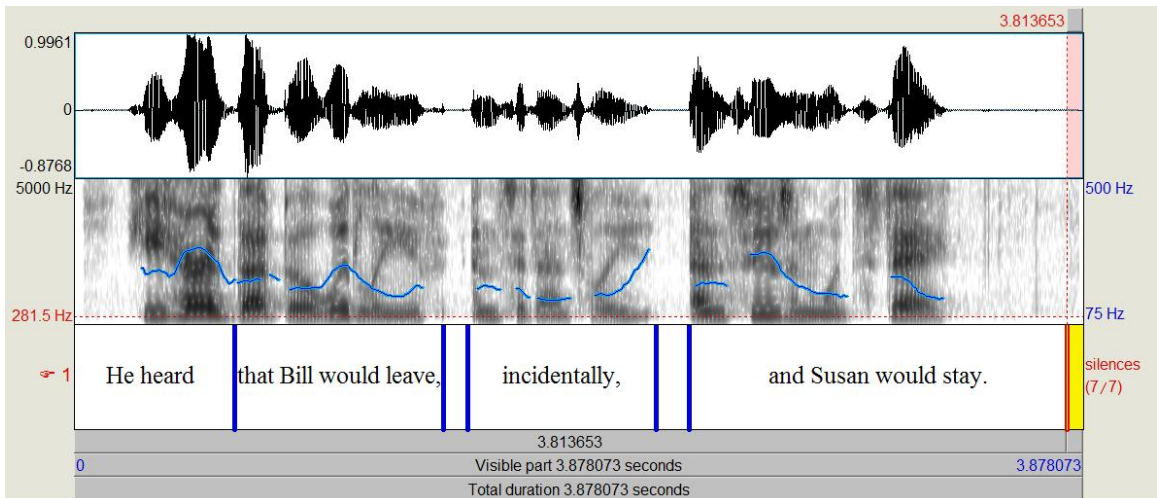
Given these facts, it is possible that the confounding factor is, in fact, the intonation. Future research may confirm these inferences, but for now, the observations made will have to suffice and this position is deemed grammatical for the purposes of this research.

     *e.*  *After Coordinator*

S26.19 He heard that Bill would leave and, apparently, Susan would stay.    Average: 7.7

S55.10 George was angry with Fred and, apparently, Karen was avoiding Susan.    Average: 8.3

S55.11 Katie heard that George was angry with Fred and, apparently, Karen was avoiding Susan.    Average: 8.0

     *f.*  *After First Subject of 2$^{nd}$ TP*

S26.20 He heard that Bill would leave and Susan, incidentally, would stay.    Average: 5.1

S67.13 Katie got a new job and Anna, incidentally, graduated.    Average: 7.0

The data for this position may seem contradictory given the significant difference in the average grammaticality ratings for these utterances. It appears that the variance may be due to a difference in structure – S26.20 involves a coordinated TP within a subordinate clause whereas the grammatical S67.13 does not involve an embedded clause. However, it is also possible that the issue is prosodic. When it comes to the coordinated TPs, there does seem to be a difference in the intonations:

(i)      S26.20 He heard that Bill would leave and Susan, incidentally,  Average: 5.1
         would stay.
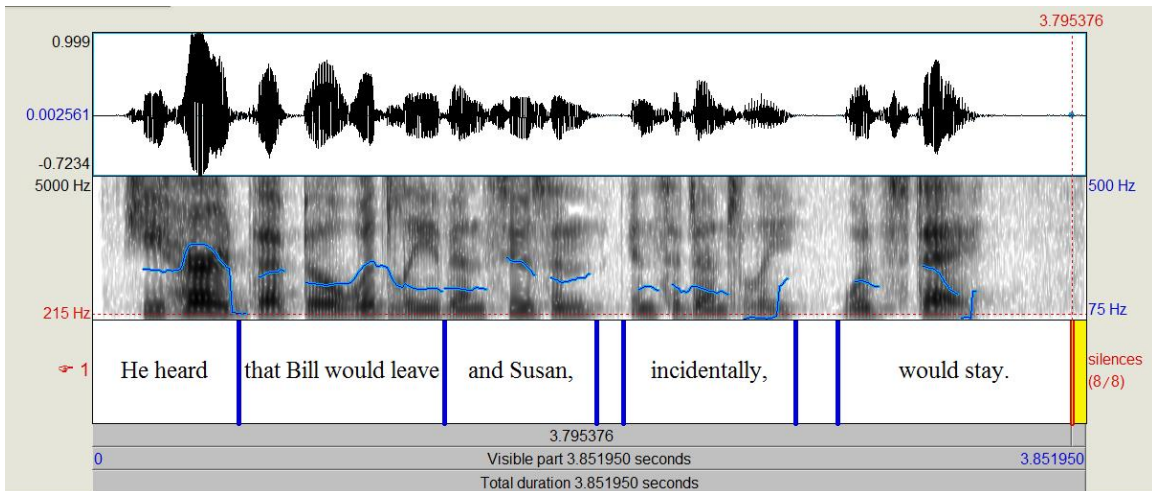


(ii)     S67.13 Katie got a new job and Anna, incidentally, graduated.  Average: 7.0
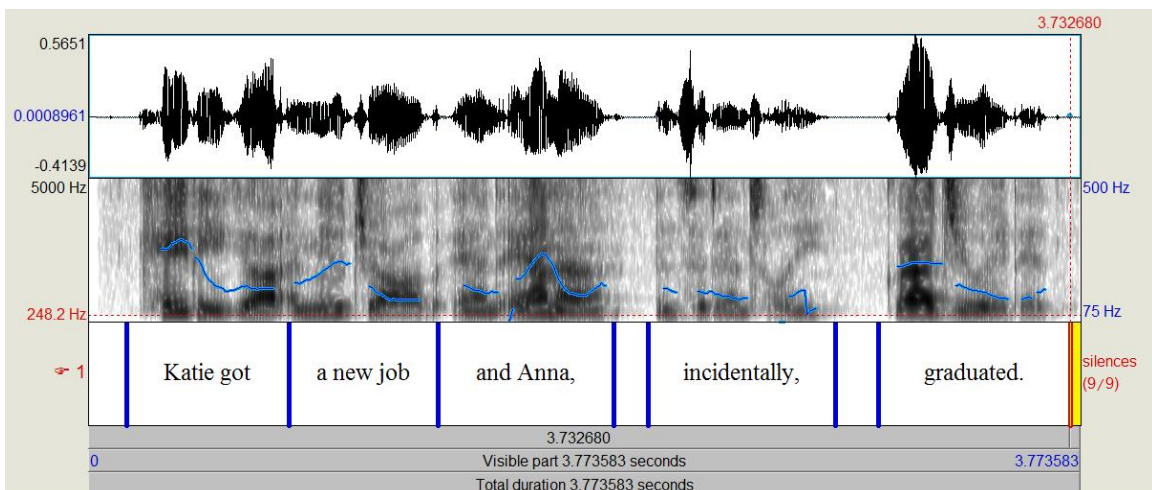


As can be seen by the above, S26.20's emphasis is on "would" whereas S67.13's emphasis

is on the subject, "Katie". Additional research would be required to determine which

variable correlates with the variance in grammaticality judgments.

g. *Before Complementizer for Embedded Coordinated TPs*

S57.8 I heard, by the way, that George is angry with Fred and Karen    Average: 7.5
is avoiding Susan.
S26.15 He heard, incidentally, that Bill would leave and Susan would  Average: 7.2
stay

h. *After Complementizer for Embedded Coordinated TPs*

S26.16 He heard that, apparently, Bill would leave and Susan would    Average: 6.9[12]
stay.

## 5  Conclusions

*5.1 Grammatical Interpolation Points*

The data show that Mitigatory PEs are grammatical in a myriad of locations. These

locations are presented in the form of syntax trees. Where it cannot be known whether the

PE left-adjoins to one item or right-adjoins to its sister, a dashed line is used and connects

to the joint of the tree rather than showing the actual adjunction structure as the exact

structure is unknown

1. The Left-Edge

XPROOT

YP                    XPROOT
[MITIG]

---
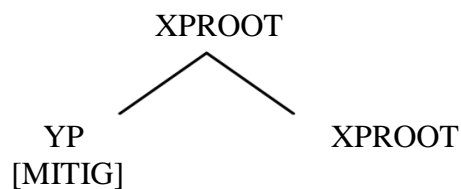
[12] While this utterance has shown borderline grammaticality, it is presently inconclusive.
Additional research would be required to determine whether or not this position is a possible interpolation
point.

2. The Right-Edge
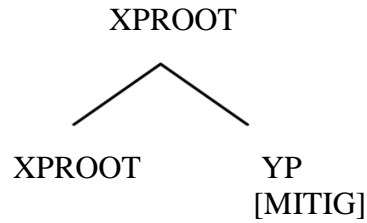
XPROOT

XPROOT          YP
                [MITIG]

3. After the first subject

Because the utterance would be pronounced identically whether the Mitigatory PE DP right-adjoins to the subject DP or left-adjoins to T', with the present data, it cannot be determined how exactly the Mitigatory PE attaches in these cases. However, it is clear that the DP may occur immediately after the first subject as long as there is no [+Q] WH word present in the host utterance and as long as said subject is not a dummy subject,. Other unconventional subjects such as coordinated DPs and CP subjects do not affect the grammaticality of this position.

TPROOT

{DP, CP}          XP              T'
                  [MITIG]
                              T          VP
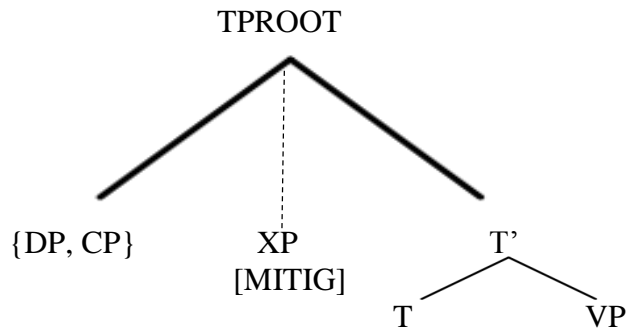
4. Before an Overt Complementizer of an Embedded CP

Because of the linear order of pronunciation, it is impossible to tell whether the Mitigatory PE is in Spec C' or in Spec CP. Therefore, both lines are presented.
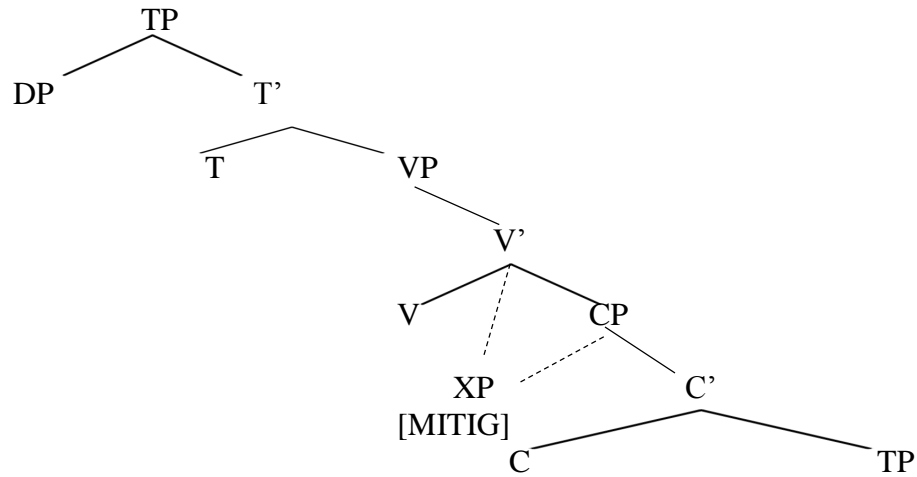
```
                    TP
                  /    \
              DP        T'
                      /    \
                   T         VP
                              \
                               V'
                             /  ⋮  \
                          V    ⋮     CP
                              XP  ⋮  /  \
                           [MITIG]   C'
                                   /    \
                                  C      TP
```

5. Between the 1ˢᵗ and 2ⁿᵈ Auxiliary Verbs in an Aux Chain

```
            TP
          /    \
       DP        T'
               /    \
            T         VP
          [+AUX]    /    \
                 XP        VP
              [MITIG]    /    \
                      AUX      VP
                                |
                                V'
                              /    \
                           AUX      VP
```
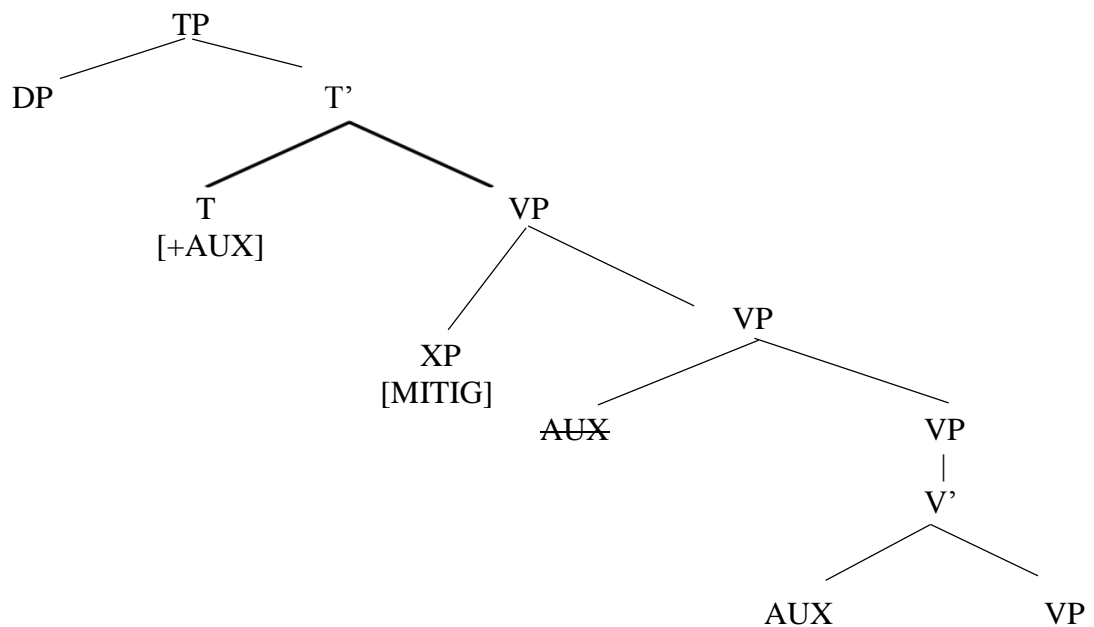
6. Between the 2$^{nd}$ and 3$^{rd}$ PPs in a PP Chain
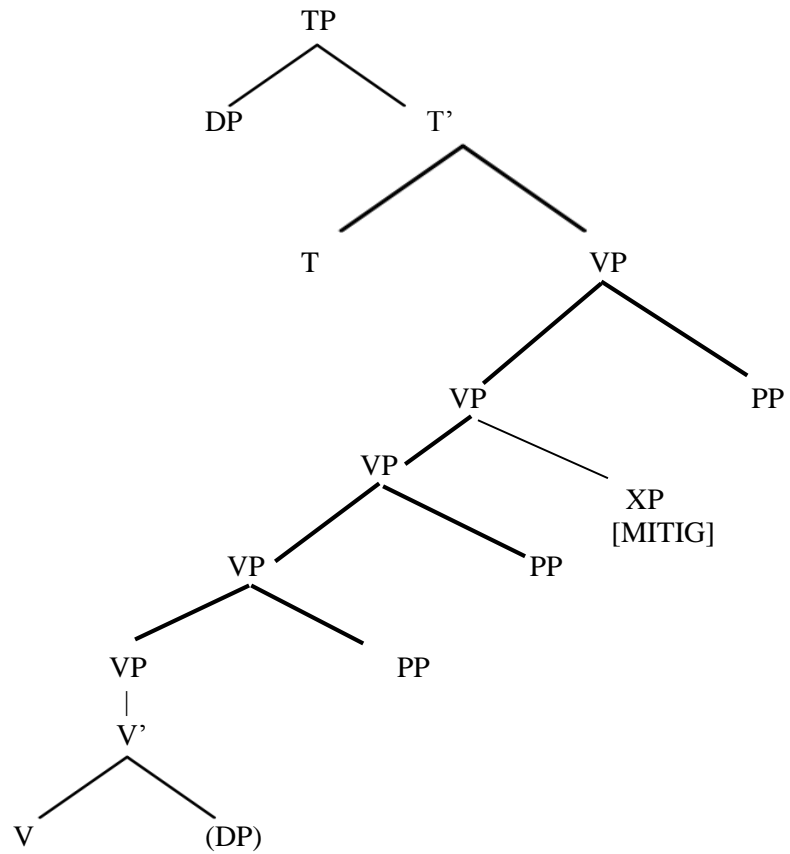
7.  Before the Coordinator of a Coordinated VP

This position is only acceptable when the coordinated VP is not present in an embedded clause. These facts are discussed in Section 4.7.2.

```
                TP[ROOT]
               /        \
             DP           T'
                         /  \
                        T    VP
                            /  \
                          VP   XP COORD        VP
                              [MITIG]
```
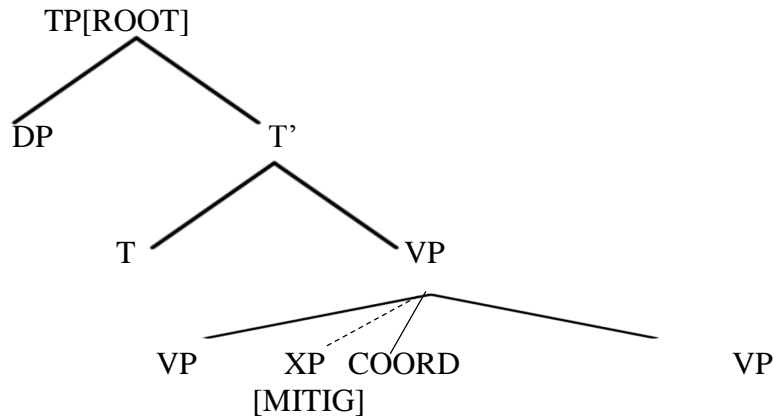
8.  After the Coordinator of a Coordinated VP

As discussed in Section 4.7.2, this position is only conclusively grammatical in the structure as shown below.
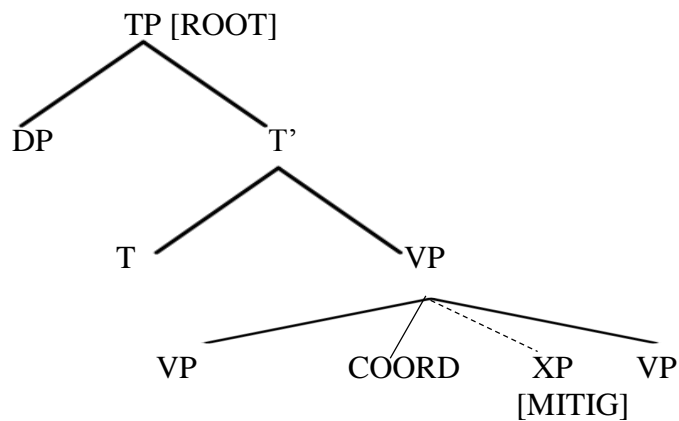
```
                TP [ROOT]
               /         \
             DP            T'
                          /  \
                         T    VP
                             /  \
                           VP   COORD   XP    VP
                                       [MITIG]
```

9.   Before the Coordinator of a Coordinated TP

This position is grammatical whether the coordinated TP is the highest/root TP or in an embedded clause. These facts are discussed in Section 4.7.3.

```
                    TP
        ┌──────────┴──────────┐
       TP        XP  COORD        TP
              [MITIG]
```

10. After the Coordinator of a Coordinated TP

This position is grammatical whether the coordinated TP is the highest/root TP or in an embedded clause. These facts are discussed in Section 4.7.3.

```
                    TP
        ┌──────────┴──────────┐
       TP        COORD     XP    TP
                        [MITIG]
```
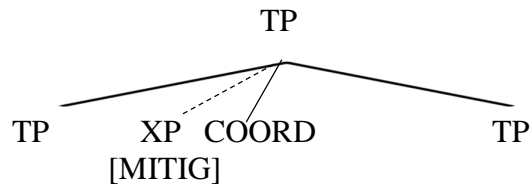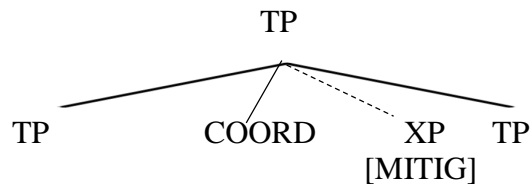
11. Between a Verb and its DP Complement

While the majority of Mitigatory PEs cannot appear after the verb, "(as) it turns out" can do so. This fact is discussed in Section 3.2.2.

TP
DP        T'
        T        VP
            V        XP        DP
                [MITIG]
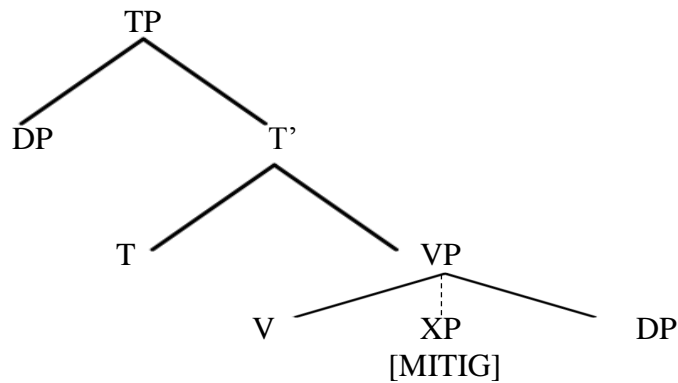
*5.2 Potentially Grammatical Interpolation Points*

While the preceding positions have all been determined conclusively grammatical by the data, there are other cases when the data are not so clear. There are several instances in which the collected data are mixed. A summary of these positions follows:

1.   Following the Complementizer "Because"

As discussed in Section 3.2.3, the data for Mitigatory PEs following the Complementizer "because" have been mixed. This position may be possible under some conditions and ungrammatical under others, but as this work has not been able to determine what those conditions are, this position remains a potentially grammatical one and may merit further study.

```
              TP
            /    \
         DP        T'
                  /   \
                 T      VP
                         \
                          V'
                         /   \
                        V      CP
                                \
                                 C'
                                /:\
                               / : \
                              C  XP  TP
                        ["because"] [MITIG]
```
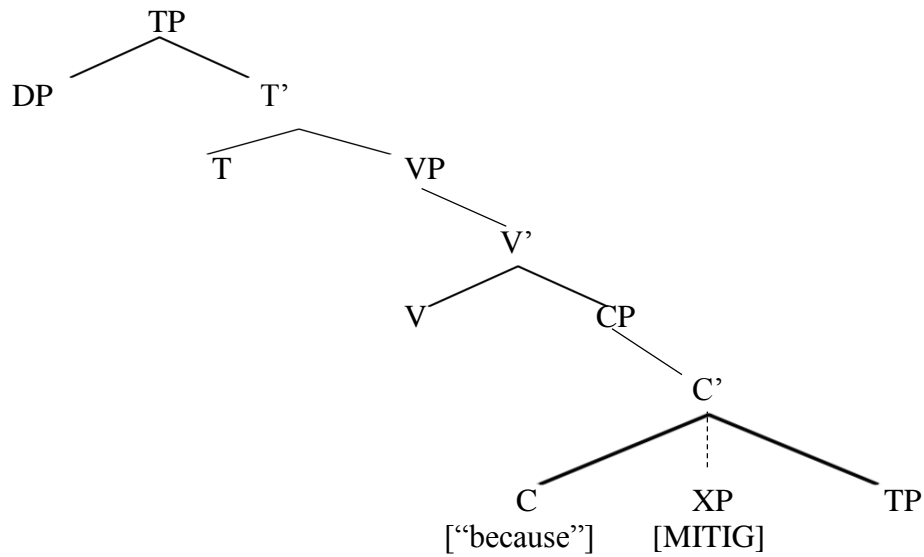
2.  After the First [+focus] DP in an utterance with Contrastive Topicalization

The data given in Section 4.1 in which for Mitigatory PEs follow the first fronted [+focus] DP in an utterance with Contrastive Topicalization have been distinctly mixed. While the determining factor for this position's possible grammaticality has been elusive to date, future research may shed light upon the issue.

[Syntax tree diagram:

CP
├── CP
│   ├── DP
│   ├── XP [MITIG]
│   └── C'
│       └── TP
│           ├── DP
│           └── T'
│               ├── T
│               └── VP
│                   └── V'
│                       ├── V
│                       └── DP (struck through)
├── COORD
└── CP
    ├── DP
    └── C'
        └── TP
            ├── DP
            └── T'
                ├── T
                └── VP
                    └── V'
                        ├── V
                        └── DP (struck through)]
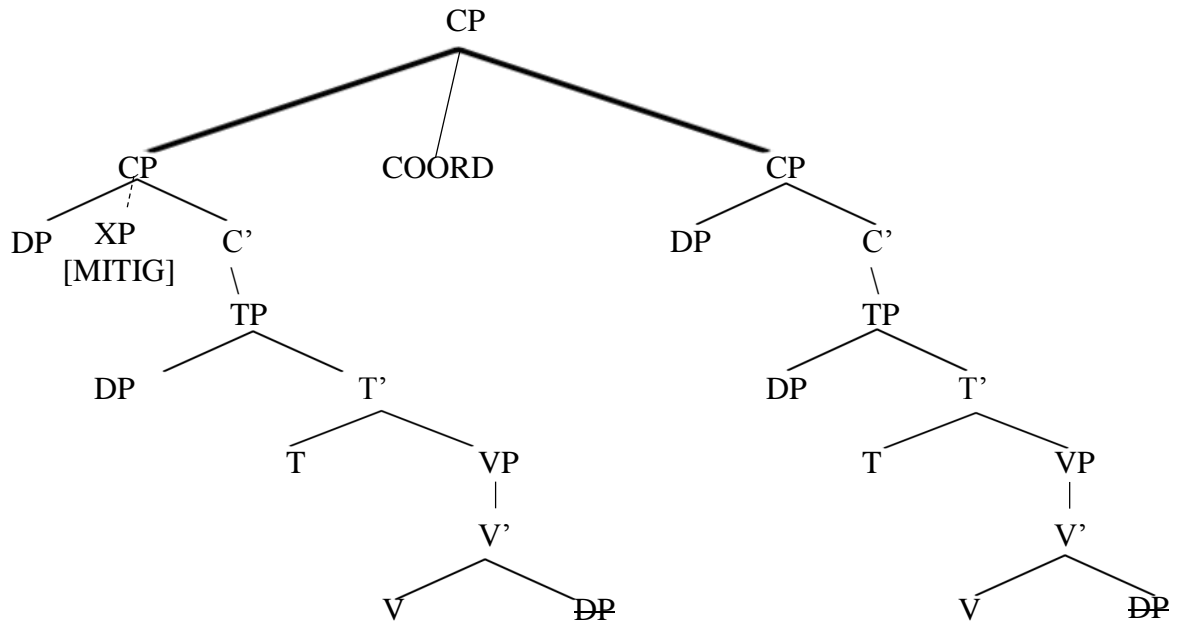
3.   After the Second [+focus] DP in Contrastive Topicalization


Similarly, following the second fronted [+focus] DP in an utterance with Contrastive Topicalization have been also mixed and the reason also presently obscured. This is also discussed in Section 4.1.
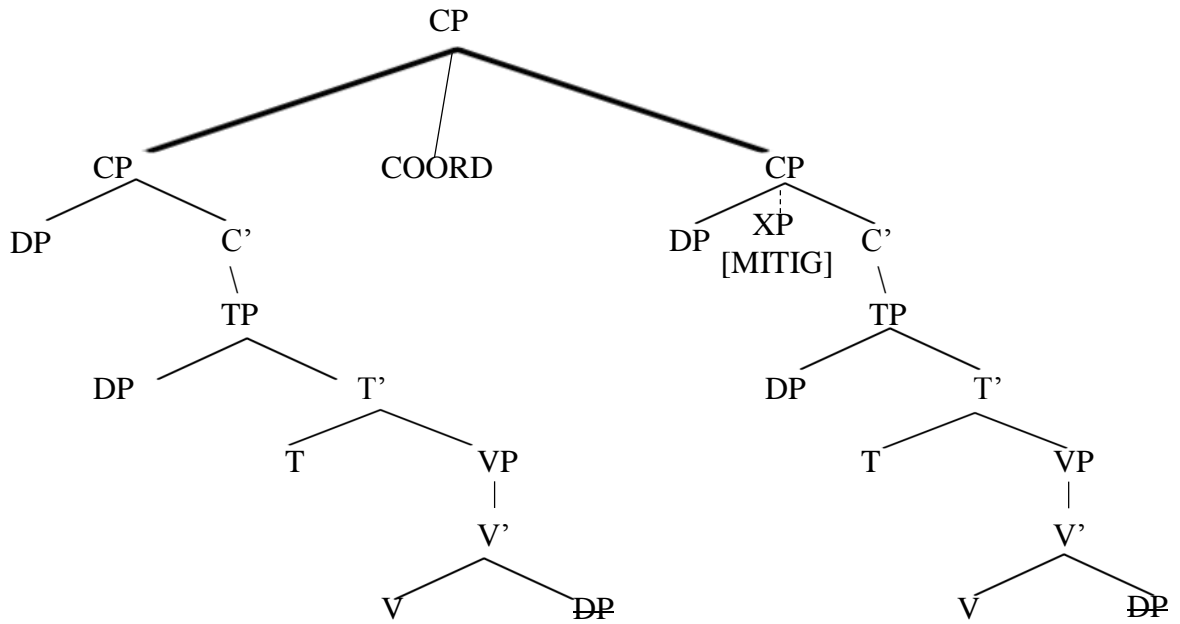
4. Before the Coordinator in an utterance with Contrastive Topicalization

Section 4.1 also showed mixed data for the position preceding the coordinator in an utterance which also displays Contrastive Topicalization.
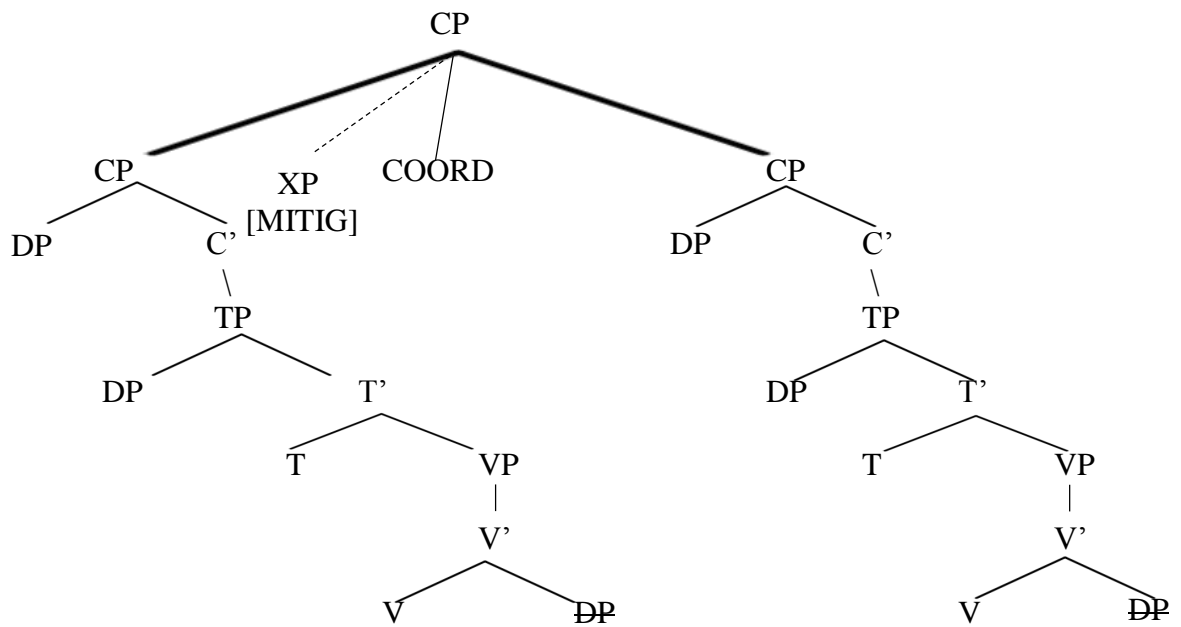
5.   Following a [+R] WH Phrase

The data for [+R] WH words (see Section 4.4) have shown variation when it comes to the position immediately following the relative WH phrase. The structure given below is reflective of the grammatical S56.17 (Susan knows which truck, incidentally, is ours.)
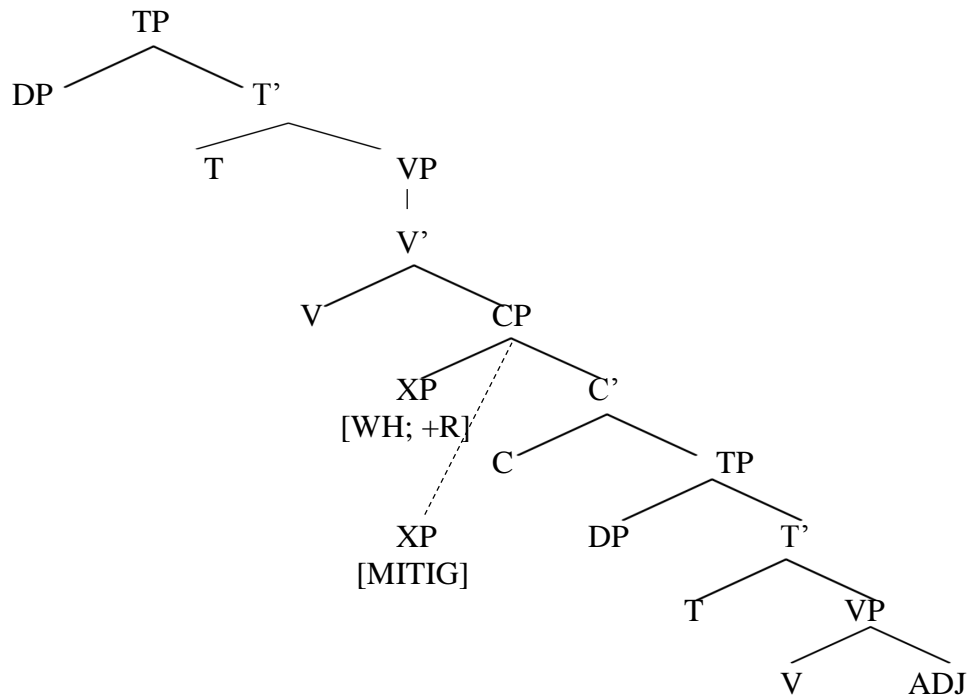
6. After the Complementizer in an Embedded clause with a Coordinated VP

As discussed in Section 4.7.2, when the coordinated VP is within an embedded clause as shown below, the data are mixed. In such cases, grammaticality is possible but not assured.

```
                TP[ROOT]
               /        \
             DP          T'
                        /   \
                       T     VP
                              |
                              V'
                             /  \
                            V    CP
                                   \
                                    C'
                                   /  \
                                  C    TP
                                      /   \
                                    XP     TP
                                 [MITIG]  /  \
                                        DP    T'
                                             /  \
                                           T'    VP
                                                / | \
                                              VP COORD VP
```
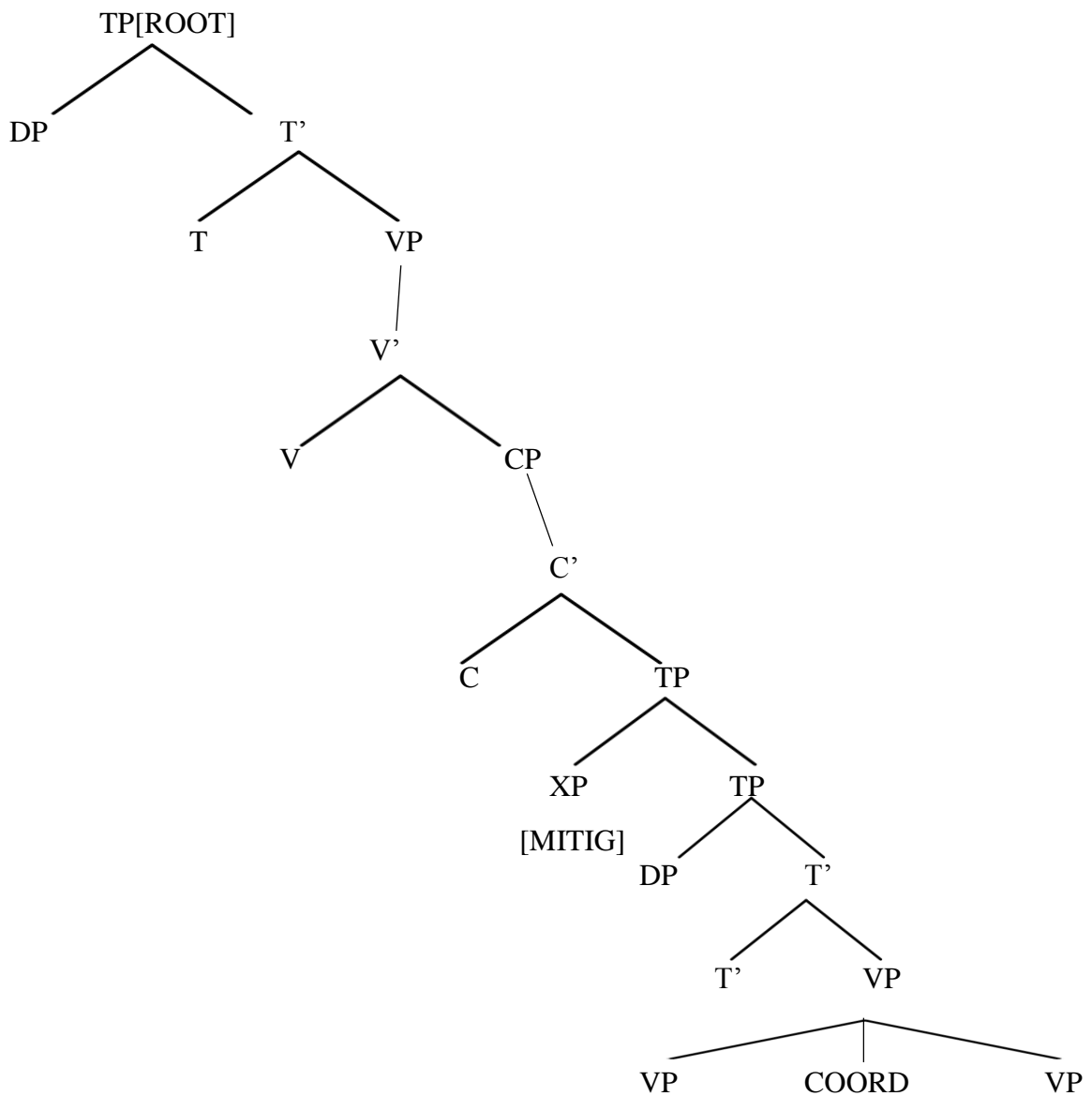
7. After the Subject of the Second TP in a Coordinated TP

Section 4.7.3 shows that while following the subject of the first TP in a coordinated TP is grammatical, following the subject of the right-most TP yielded mixed data. Given the tested forms used unpronounced Ts, it cannot be known for sure whether the XP right-adjoins to DP or left-adjoins to T'. For this reason, dashed lines are used.
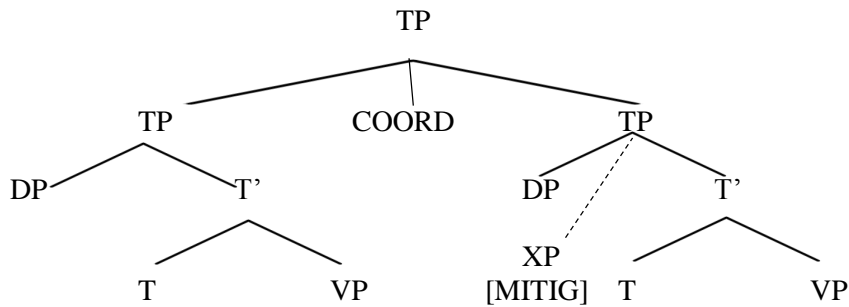
```
                              TP
                    ┌──────────┼──────────┐
                   TP       COORD         TP
                 ┌──┴──┐             ┌─────┴──┐
                DP    T'            DP        T'
                    ┌──┴──┐         │       ┌──┴──┐
                   T     VP        XP    T       VP
                                 [MITIG]
```

All other positions are subject to variation depending on the type of Mitigatory PE and other factors such as interactions with other objects and processes.

# 5. EVIDENTIAL PARENTHETICAL EXPRESSIONS

## 1   Introduction

### 1.1 Evidential PEs

Evidential PEs are a category of parenthetical TPs which, if taken literally, serve to orient the hearer to the level of confidence the speaker has in the veracity of the proposition. They have also been called "parenthetical verbs" and studied by Urmson (1952, 1963) and labeled "comment clauses" and "discourse markers" by Kaltenböck (2007:29).

### 1.2 Scope of Discussion

As discussed in Chapter 1 of this work and reiterated in Chapter 4, this work focuses on the positions which the parentheticals can grammatically appear. This is not to say that I will be completely ignoring all data which do not show grammaticality; if the positions which are grammatical for one set of PEs proves to be ungrammatical in this work, such phenomena will be discussed. However, the focus is and will be on what is grammatical. Towards this end, I will be primarily presenting data on and discussing the

grammatical positions rather than waxing on about ungrammatical positions simply to prove that some positions are, in fact, ungrammatical.

## 2 Evidential PE Internal Structure

Similar to Vocatives, which exclusively take the form of DPs (of varied structure though they may be), the Evidential PEs studied in the present study[1] all take the form of TPs. A few examples of these which have been tested in this work can be found below:

(1) Evidential Parenthetical Expressions

    a. You see
    b. You know
    c. I believe
    d. I expect

## 3 Distribution of Evidential PEs within Larger Structures

### 3.1 The Edges

The left and right edges are nearly universally acceptable locations for Evidential PEs, just as with Vocatives and Mitigatory PEs. A few examples from the data confirming this follow:

---

[1] This is by no means an exhaustive list, but these are the objects from this category studied in this work.

(2) *Edges*

  a.  *Left Edge*

| | |
|---|---|
| S28.10 You see, it seemed like he knew what he was doing. | Average: 9.3 |
| S28.19 I believe, there were some good suggestions. | Average: 8.3 |
| S33.16 You see, she said that Susan was going on vacation. | Average: 8.4 |
| S36.17 You know, he heard that Bill would leave and Susan would stay. | Average: 8.4 |

  b.  *Right Edge*

| | |
|---|---|
| S28.18 There were some good suggestions, I believe. | Average: 9.3 |
| S29.16 She got lost on the way to the house, you know. | Average: 8.7 |
| S33.5 That she would lie to us is hard to believe, you see. | Average: 8.4 |
| S33.15 She said that Susan was going on vacation, you see. | Average: 8.1 |

*3.2 Elsewhere*

*3.2.1   After the First Subject*

The data for Evidential PEs following the first subject are more mixed than that of Vocatives or Mitigatory PEs for this position.

(3) *After the First Subject*

| | |
|---|---|
| S33.17 She, you see, said that Susan was going on vacation. | Average: 4.4 |
| S33.8 Everyone, you know, knows that he hates that movie. | Average: 6.7 |
| S28.7 It, I believe, was raining. | Average: 5.2 |
| S28.20 There, I believe, were some good suggestions. | Average: 6.7 |
| S32.10 For him, I believe, to go to the party, we would have to bribe him. | Average: 5.4 |
| S32.12 For him to go to the party, I believe, we would have to bribe him. | Average: 7.6 |
| S33.3 That she would lie to us is, you see, hard to believe. | Average: 5.8 |
| S32.5 That it was a bad idea, you know, is obvious now. | Average: 7.3 |
| S35.14 The yard and the pool, I hear, were in terrible condition. | Average: 8.2 |

For simple sentences, following the first subject ranges from ungrammatical to inconclusive. Curiously, when other confounds are introduced such as coordination in the subject or CP Subject Formation, the rates of approval increase. These cases will be discussed further in their own sections. It is possible that these more unusual subjects disambiguate the utterances – i.e. DP[the yard and the pool] TP[I hear] VP[were in terrible condition] versus DP[she *you ] VP[*see said…]. This, however, is pure speculation to perhaps be studied further in the future. It does also appear that of the referring expressions found in this position, pronouns and dummy subjects meet with more difficulty than proper names. However, the peculiarity of S33.17's low score may be explained away by prosodic confounds as discussed in Section 3.2.2.

### 3.2.2 Embedded Clauses

In the case of embedded clauses, the expected pattern holds – the left and right edges are acceptable. As with simple TPs, following the first subject is grammatical for Evidential PEs. Following the subject of the embedded clause is largely inconclusive. Appearing before the Complementizer is unusually variable – cases where the CP is headed by "because" are met with grammaticality, as are CPs headed by "for". Without further study into various CP heads, it is uncertain whether it is the inconclusivity of preceding "that" CPs or the grammaticality of preceding "because" and "for" CPs which is the anomaly for the position. In either case, the variation in grammaticality for the position preceding the embedded CP does seem to be related to the head of the CP clause.

*(5) Embedded Clause Positions*

    *a.  Left Edge*

| | |
|---|---|
| S29.10 You see, it seemed like he knew what he was doing. | Average: 9.3 |
| S33.7 You know, everyone knows that he hates that movie. | Average: 9.1 |
| S33.16 You see, she said that Susan was going on vacation. | Average: 8.4 |
| S34.5 I believe, she said that Susan was going on vacation. | Average: 7.2 |
| S34.20 I expect, she wanted for him to go home. | Average: 8.0 |

    *b.  Right Edge*

| | |
|---|---|
| S29.9 It seemed like he knew what he was doing, you see. | Average: 8.5 |
| S30.11 It is possible that he could have been at the party, you see. | Average: 8.8 |
| S33.6 Everyone knows that he hates that movie, you know. | Average: 8.3 |
| S33.15 She said that Susan was going on vacation, you see. | Average: 8.1 |
| S34.4 She said that Susan was going on vacation, I believe. | Average: 8.7 |
| S34.19 She wanted for him to go home, I expect. | Average: 8.9 |

    *c.  After first Subject*

| | |
|---|---|
| S33.8 Everyone, you know, knows that he hates that movie. | Average: 6.7 |
| S33.17 She, you see, said that Susan was going on vacation. | Average: 4.4 |
| S37.2 Joe, you see, refused to answer the question because it was rude. | Average: 8.0 |
| S37.11 The cat, you see, escaped because it wanted to play outside. | Average: 7.3 |

The data here seem unusually varied at first glance. While S33.8 is not statistically significant in its deviation from the grammatical S37.11, S33.17 is harder to explain away. However, the suprasegmental level shows a difference in the pause length surrounding the parenthetical in what one might call "comma intonation":

(i)    S33.17 She, you see, said that Susan was going on vacation.    Average: 4.4
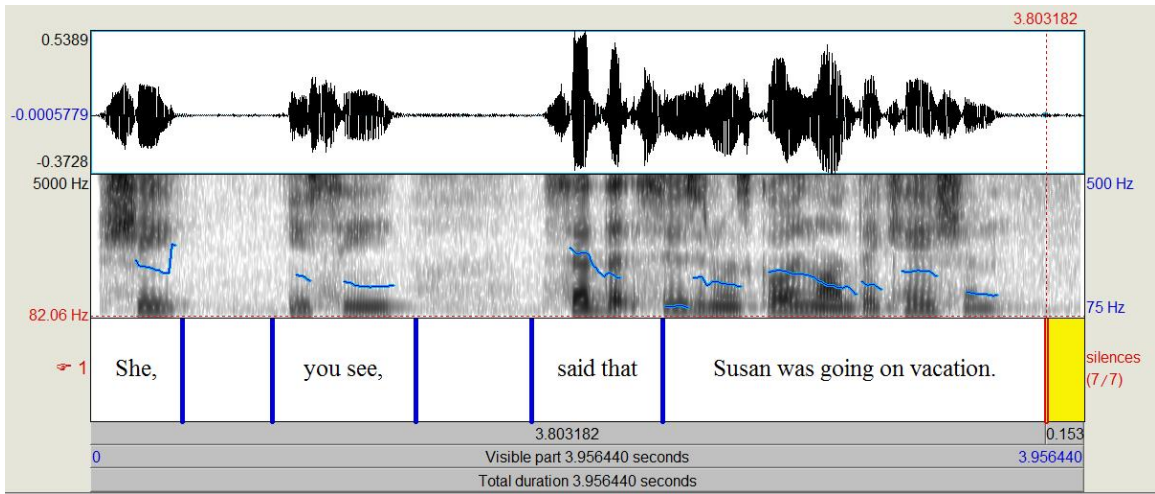


(ii)    S37.2 Joe, you see, refused to answer the question because it    Average: 8.0
        was rude.
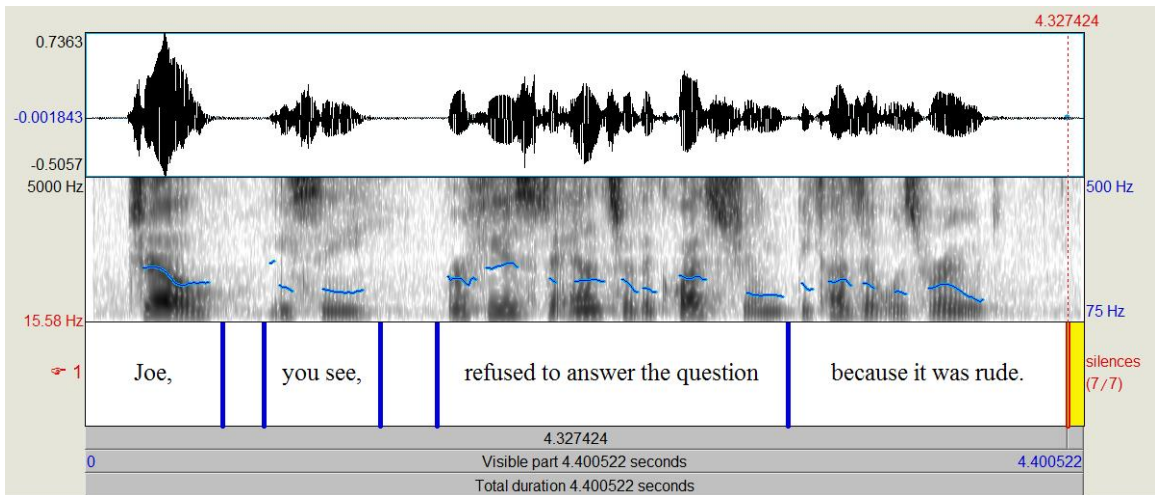


The pauses surrounding the PE in S33.17 are nearly twice as large as those around the PE

in S37.2:

*(iii)    Pause Lengths*

|  | Pause Before PE | Pause After PE |
|---|---|---|
| S33.17 | 0.36 seconds | 0.46 seconds |
| S32.7 | 0.18 seconds | 0.25 seconds |

While the difference in grammaticality cannot be attributed to the differences in pause length with 100% certainty, it does seem to be the likely confound. On the other hand, there is also the possibility that following a referring expression other than a proper name (i.e. a pronoun or dummy subject) may be playing a role. Data from the Vocatives chapter have been mixed when it comes to following a pronoun, particularly one which is not second person (see Chapter 1: Vocatives, Section 3.2.1 for further discussion). Either way, the ungrammaticality of S32.7 can be dismissed and the position deemed grammatical, if with a few caveats for the confounding elements of pronouns and/or pause length.

### d.  Following the Embedded Subject(s)

S28.13 It seemed like he, you see, knew what he was doing.            Average: 4.0
S33.12 Everyone knows that he, you know, hates that movie.           Average: 5.1
S33.20 She said that Susan, you see, was going on vacation.          Average: 6.1
S34.16 She wanted for him, I expect, to go home.                     Average: 2.3
S33.12 Everyone knows that he, you know, hates that movie.           Average: 5.1
S37.14 The cat escaped because it, you see, wanted to play outside.  Average: 3.8

### e.  After Verb(s)

S28.14 It seemed like he knew, you see, what he was doing.            Average: 4.3
S33.13 Everyone knows that he hates, you know, that movie.           Average: 3.9
S37.5 Joe refused to answer, you see, the question because it was rude. Average: 3.6
S32.11 For him to go, I believe, to the party, we would have to      Average: 3.8
    bribe him.
S34.18 She wanted for him to go, I expect, home.                     Average: 3.9

> *f.   Before C*
>
> > *1.“That” C*

S33.10 Everyone knows, you know, that he hates that movie.          Average: 5.6
S33.18 She said, you see, that Susan was going on vacation.          Average: 6.0
S36.15 He heard, you know, that Bill would leave and Susan would     Average: 6.9
stay.

Within this set of data, the difference between S33.10 and S36.15 is significant. A

look at the suprasegmental level for these utterances shows no significant difference in

the intonation surrounding the parentheticals:

> (i)      S33.10 Everyone knows, you know, that he hates that          Average: 5.6
> movie.
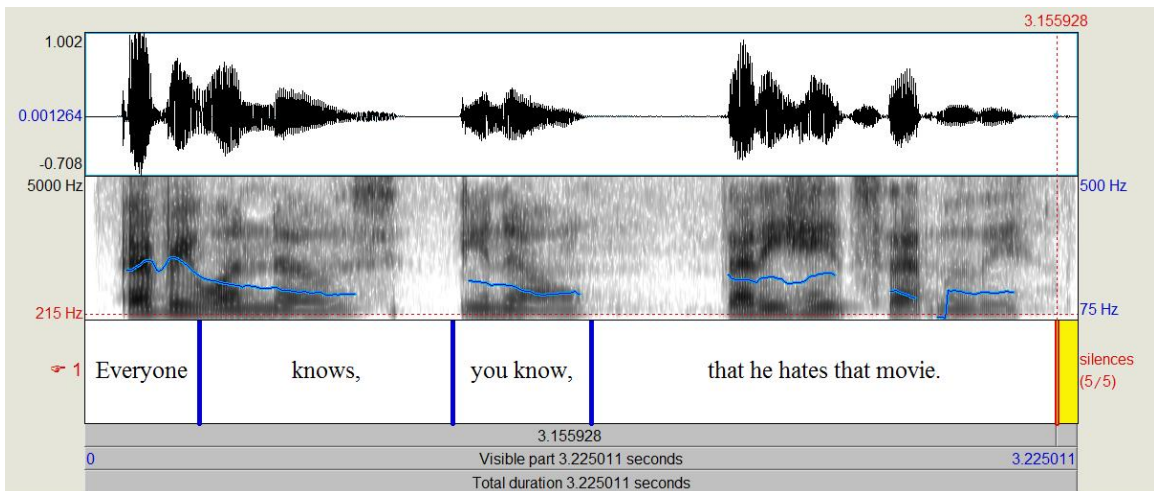
(ii)    S33.18 She said, you see, that Susan was going on vacation.    Average: 6.0
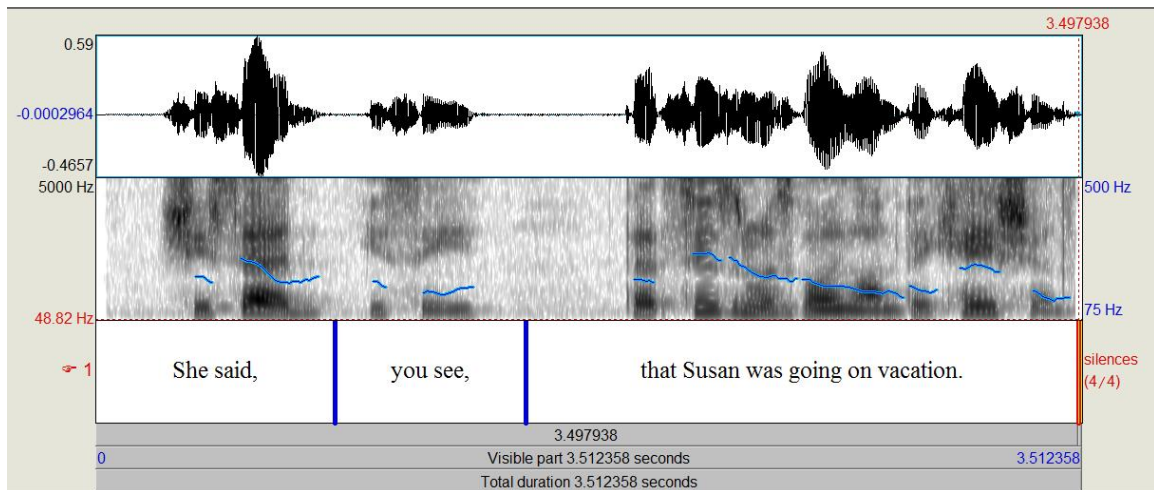


(iii)    S36.15 He heard, you know, that Bill would leave and    Average: 6.9
         Susan would stay.
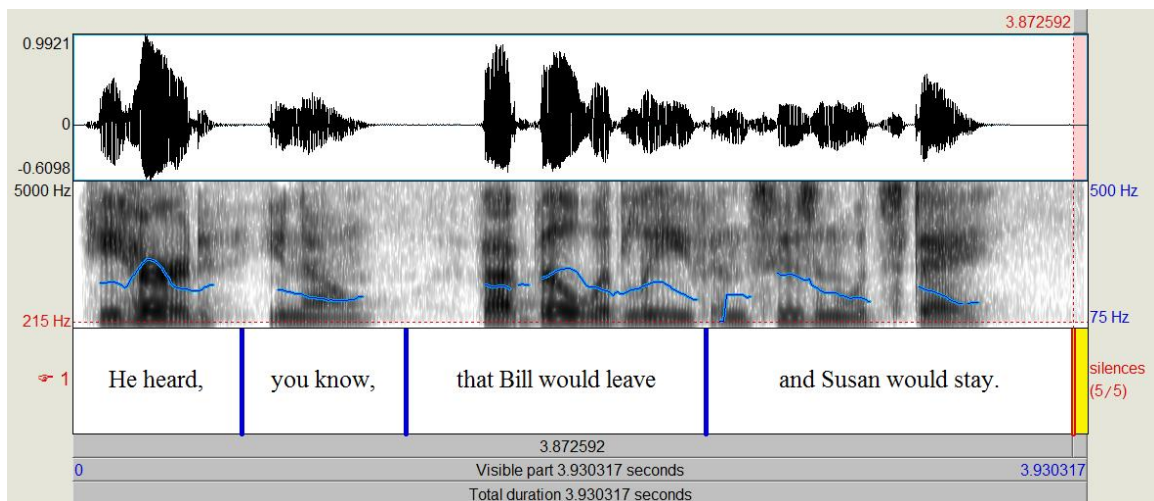


There is one difference between S33.10 and its companions in intonation – the pitch is lower on the verb "knows" and higher on the subject "everyone", whereas the others feature the reverse emphasis. This may be the underlying cause in the variation of grammaticality ratings. However, it is also possible that the confounding feature is the

verb "know" directly preceding a "you know" Evidential PE. Further testing would be required to determine whether this speculation is accurate.

### 2. "For" C

| | |
|---|---|
| S34.14 She wanted, I expect, for him to go home. | Average: 7.1 |
| S68.2 Katie wanted, I hear, for Anna to graduate. | Average: 6.6[2] |
| S68.3 John hoped, I believe, for Katie to get a new job. | Average: 7.7 |

### 3. "Because" C

| | |
|---|---|
| S37.12 The cat escaped, you see, because it wanted to play outside. | Average: 8.0 |
| S37.20 The landlord turned off the electricity, you know, because there was an emergency. | Average: 7.3 |

To sum up the data for this position, Evidential PEs are clearly grammatical when preceding a "because" CP and a "for" CP, but the data for preceding a "that" CP are less conclusive. However, the difference in grammaticality between "that" CP utterances, S33.18 and S35.16, and the technically grammatical S34.14, have been determined to be statistically insignificant. On these grounds, this position is treated as a grammatical location for Evidential PEs.

Given the structural and prosodic similarities of the utterances in this position, the comparative grammaticality for this position appears to be dependent upon which Complementizer is head of the embedded CP. Still, even "that" CPs are essentially grammatical according to the statistics, if borderline, as discussed above. That being said, both the grammaticality judgment scores and the intuitions of the subjects show that these

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[2] The difference between S68.2 and S34.14 is statistically insignificant, so this position for preceding "for" CPs is determined grammatical.

PEs are preferred at the edges, a fact shown by the significant difference between utterances like S29.10[3] and S34.14 as well as a subject's comment on S34.14

(i)     S34.14 She wanted, I expect, for him to go home.     Average: 7.1

Comments:

    a.  Better, but still you'd put it at the beginning or end.
    b.  None

    g.  *After C*

| | |
|---|---|
| S37.7 Joe refused to answer the question because, you see, it was rude. | Average: 6.3 |
| S36,16 He heard that, you know, Bill would leave and Susan would stay. | Average: 6.1 |
| S37.13 The cat escaped because, you see, it wanted to play outside. | Average: 5.3 |
| S37.19 The landlord turned off the electricity because, you know, there was an emergency. | Average: 6.7 |

To sum up, both edges remain grammatical, but the other generally acceptable positions, after the first subject and before the embedded clause, are more variable. The former does so in a befuddling way whereas the latter seems to be directly related to the head of the CP. The comparative grammaticality of both various positions as well as the differences in the position preceding the Complementizer depending upon which C is used may be something to investigate in the course of future research. For now, the results speak for themselves.

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[3] S29.10 You see, it seemed like he knew what he was doing.     Average: 9.3

## 4  Interactions with Complex Structures and Movement Processes

### 4.1 Contrastive Topicalization

Even when Contrastive Topicalization occurs, the edges are grammatical positions for the Evidential PEs. Preceding the coordinator is variable, possibly dependent upon the particular Evidential PE being used. All other positions remain either unacceptable or inconclusive as shown by the following data.

(6)  *Contrastive Topicalization*

a.  *Left Edge*

| | |
|---|---|
| S29.2 You see, Jim I love, but Mary I hate. | Average: 8.3 |
| S29.16 You see, Mondays, I can take or leave, but Wednesdays, I love. | Average: 8.4 |

b.  *Right Edge*

| | |
|---|---|
| S29.1 Amanda, I love, but Mary I hate, you see. | Average: 6.8[4] |
| S29.15 Mondays, I can take or leave, but Wednesdays, I love, you see. | Average: 7.5 |
| S29.6 Jazz I love but rock I hate, you know. | Average: 7.2 |
| S29.17 What he did, I hate, but how he did it, I love, I expect. | Average: 3.7[5] |

---

[4] The difference between the technically inconclusive S29.1's score of 6.8 and S29.6's grammatical score of 7.2 is statistically insignificant. On this basis, S29.1 is considered grammatical, as is this position.

[5] As the only statistically significant difference in grammaticality for this position involves the additional confound of WH movement, the ungrammaticality suggested by S29.17 is dismissed and this position is deemed grammatical.

*c. After First [+focus]DP*

S29.7 Jazz, you know, I love but rock I hate.                              Average: 6.2[6]
S29.18 What he did, I expect, I hate, but how he did it, I love.           Average: 3.6[7]
S68.4 Video games, you see, I enjoy, but movies, I love.                   Average: 8.1
S69.17 Pop music, you know, I hate, but heavy metal, I adore.              Average: 7.1


*d. After Second [+focus]DP*

S29.4 Jazz I love, but rock, you know, I hate.                            Average: 6.9
S29.13 Mondays I can take or leave, but Wednesdays, you see,              Average: 6.0
      I love.
S29.20 What he did, I hate, but how he did it, I expect, I love.          Average: 4.4[8]
S68.5 Video games, I enjoy, but movies, you see, I love.                  Average: 7.9
S69.18 Pop music, I hate, but heavy metal, you know, I adore.             Average: 7.2
        While the S29.20 can be dismissed due to confounds and technically inconclusive

S29.4 is insignificantly different from the grammatical S69.18, S29.13's score of 6.0 is

significantly different from S69.18's 7.2 average with no obvious confound at play.

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[6] The difference between the technically inconclusive S29.7's score of 6.2 and S69.17's grammatical score of 7.1 is statistically insignificant. On this basis, S29.7 is considered grammatical, as is this position.

[7] As the only statistically significant difference in grammaticality for this position involves the additional confound of WH movement, the ungrammaticality suggested by S29.18 is dismissed and this position is deemed grammatical.

[8] As the only statistically significant difference in grammaticality for this position involves the additional confound of WH movement, the ungrammaticality suggested by S29.19 is dismissed and this position is deemed grammatical.

(i)      S29.13 Mondays I can take or leave, but Wednesdays,          Average: 6.0
         you see, I love.
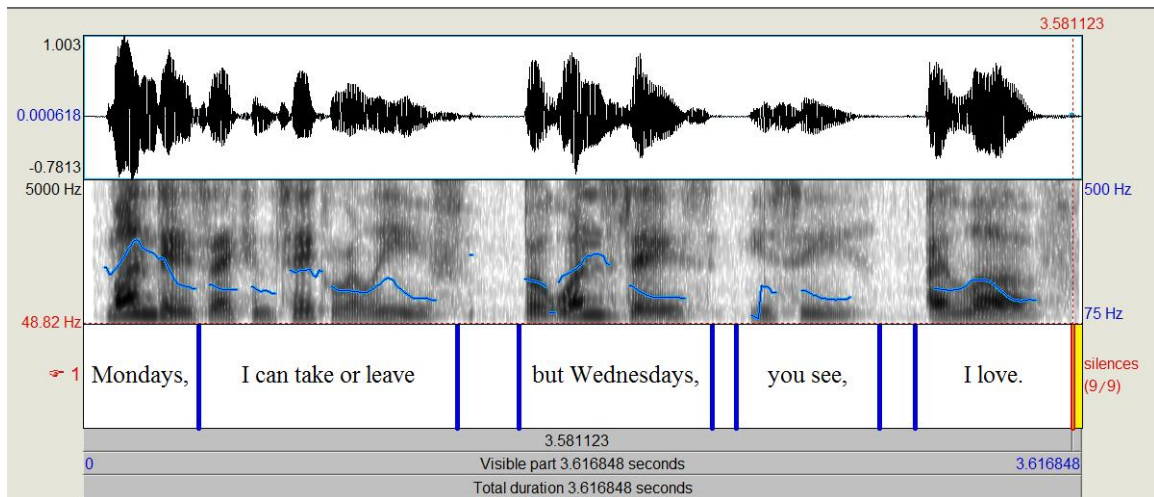


(ii)     S68.5 Video games, I enjoy, but movies, you see, I love.          Average: 7.9
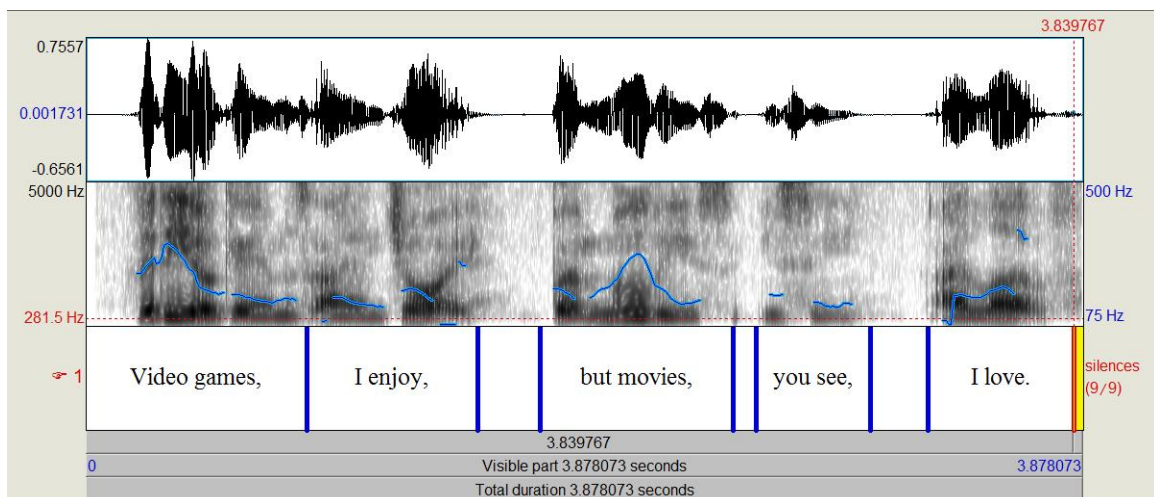


Both the prosody and pause lengths are comparable, and yet there is a statistically significant difference. At present, the only obvious variable is the more complex TP in S29.13 (i.e. "I can take or leave" versus "I enjoy", "I love", or "I hate" present in the other utterances). Perhaps confound of a coordinated VP in the TP is to blame for the drop in grammaticality, but that is for future research to determine. At presence, this

oddity is noted. However, on the basis of the other conclusively grammatical utterances, this position is considered grammatical for the purposes of this work.

### e. *Before Coordinator*

S29.3 Jazz, I love, you know, but rock I hate.                          Average: 8.0
S29.8 Dogs, I can tolerate, I believe, but cats I can't stand.          Average: 6.2
S29.12 Mondays, I can take or leave, you see, but Wednesdays I love.  Average: 8.2
S29.19 What he did, I hate, I expect, but how he did it, I love.        Average: 4.5[9]

The difference in grammaticality between S29.19 and the others can be explained away by the added confounds of WH movement and the mismatch of the verb "expect" with a present tense proposition, and thus dismissed. S29.8's unexpected yet significant difference in grammaticality from the structural equivalent S29.3 and S29.12, however, is less clear in its origins. A survey of the surprasegmental shows that these utterances have much the same intonational patterns:

---

[9] As the only statistically significant difference in grammaticality for this position involves the additional confound of WH movement, the ungrammaticality suggested by S29.17 is dismissed and this position is deemed grammatical.

(i)     S29.3 Jazz, I love, you know, but rock, I hate.     Average: 8.0
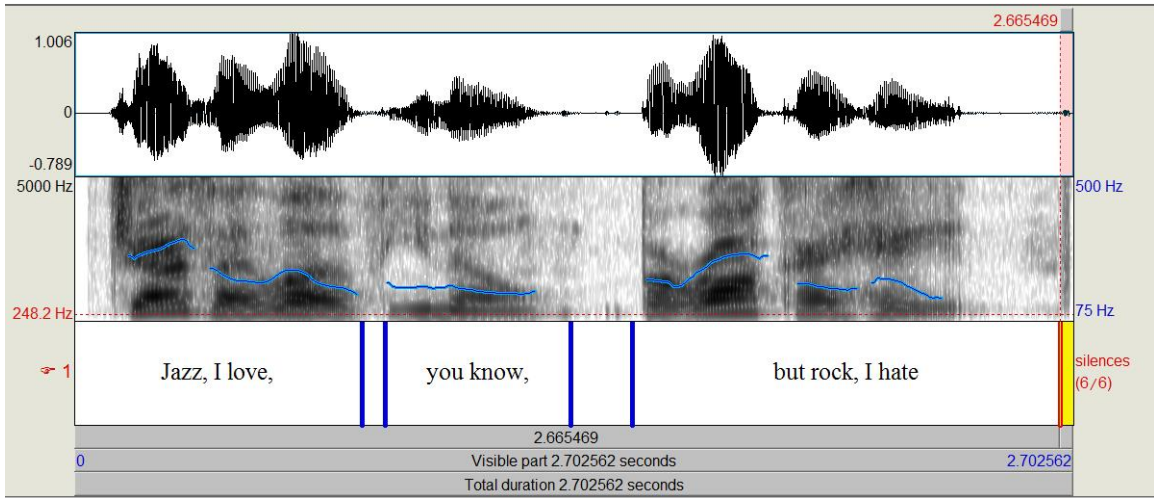


(ii)     S29.8 Dogs, I can tolerate, I believe, but cats, I can't stand.     Average: 6.2
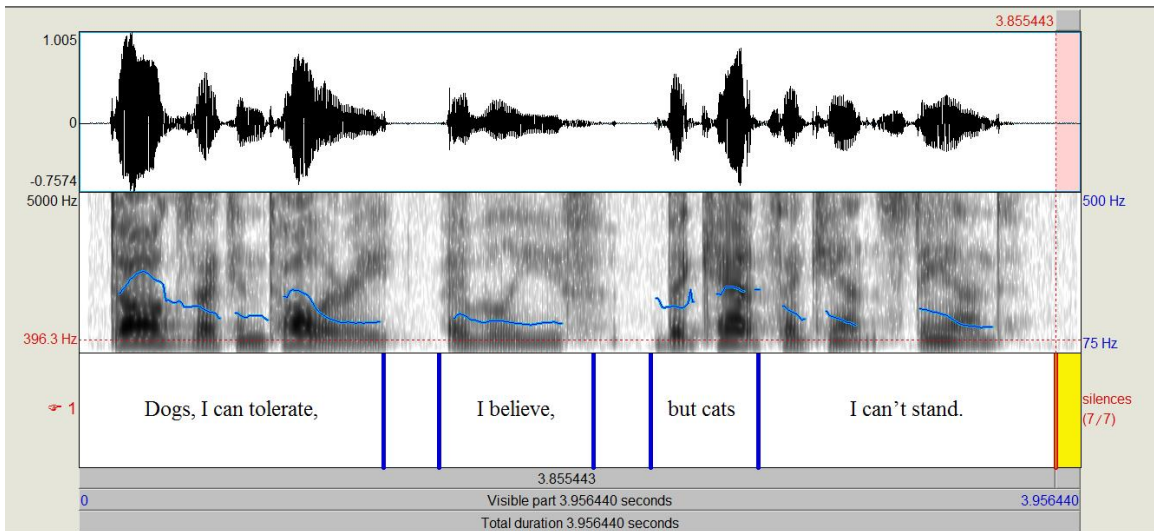
(iii)    S29.12 Mondays, I can take or leave, you see, but        Average: 8.2
        Wednesdays I love.
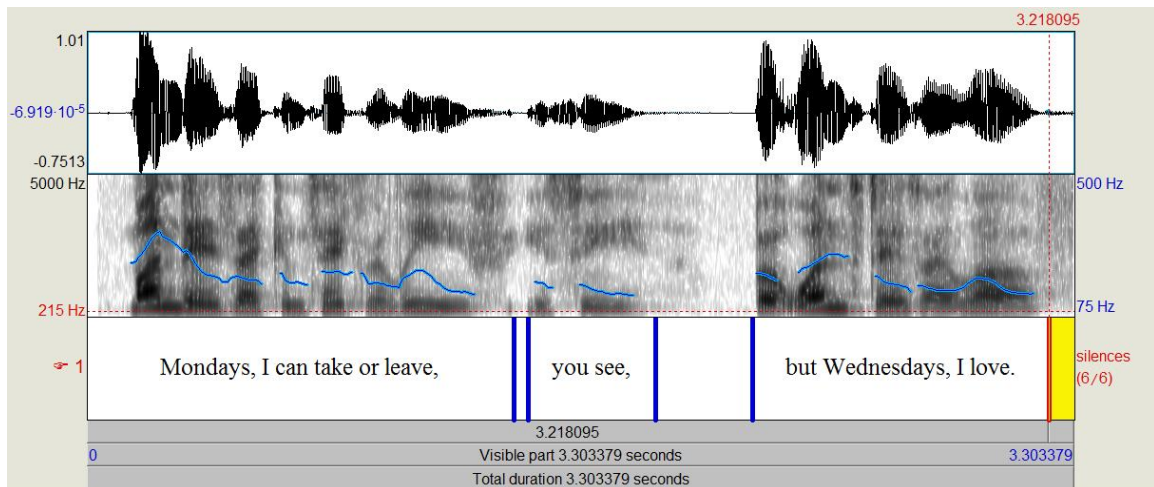


Given the similarity of intonation, the difference is likely to be either the specific PE used (i.e. "I believe") or the slightly longer pause[10] before its use in S29.8 versus the shorter ones in S29.3 and S29.12. In either case, further research would be required to determine the relevant variable.

### f.  After Coordinator

S58.1 Green, I like, but, you know, pink, I hate.                 Average: 5.6
S29.11 Mondays, I can take or leave, but, you see, Wednesdays    Average: 6.5
    I love.

### g.  Other

S29.9 Dogs, I, I believe, can tolerate, but cats, I can't stand.        Average: 3.5
S29.10 Dogs, I can, I believe, tolerate, but cats, I can't stand.       Average: 3.9
S29.5 Jazz I love, but rock I, you know, hate.                          Average: 5.1
S29.14 Mondays I can take or leave, but Wednesdays, I, you see, love. Average: 3.4

---

[10] A difference amounting to a mere 0.18 seconds from S29.12's corresponding pause and 0.15 seconds from S29.3's pause.

*4.2 Dummy Subjects*

Expectedly, the edges are acceptable even when dummy subjects are included in the utterance. Given not only the ungrammaticality of the position directly following a dummy subject for other parentheticals such as Vocatives and Mitigatory PEs, but also the inconclusivity/ungrammaticality of the position following simple DP subjects for Evidential PEs, it is unsurprising that following the dummy subject is ungrammatical for Evidential PEs. Also in keeping with expectations, all the other positions are ungrammatical as shown by the following data.

*(7) Dummy Subject Data*

    a. *Left Edge:*

| | |
|---|---|
| S28.2 You see, it started to snow. | Average: 8.9 |
| S28.5 I believe, it was raining. | Average: 8.5 |
| S28.19 I believe, there were some good suggestions. | Average: 8.3 |

    b. *Right Edge:*

| | |
|---|---|
| S28.1 It started to snow, you see. | Average: 8.4 |
| S28.9 It seemed like he knew what he was doing, you see. | Average: 8.5 |
| S28.6 It was raining, I believe. | Average: 9.4 |
| S28.18 There were some good suggestions, I believe. | Average: 9.3 |

    c. *After the Dummy:*

| | |
|---|---|
| S28.3 It, you see, started to snow. | Average: 4.0 |
| S28.11 It, you see, seemed like he knew what he was doing. | Average: 4.6 |
| S28.7 It, I believe, was raining. | Average: 5.2 |
| S58.2 There, you know, might be some problems. | Average: 5.1 |
| S58.3 There, you see, could be a storm coming. | Average: 5.1 |

*d.  Between V and complement:*

S28.14 It seemed like he knew, you see, what he was doing.          Average: 4.3
S28.4 It started, you see, to snow.          Average: 4.2
S28.8 It was, I believe, raining.          Average: 5.8

*e.  Other*

S28.12 It seemed like, you see, he knew what he was doing.          Average: 4.5
S28.13 It seemed like he, you see, knew what he was doing.          Average: 4.0
S28.15 It seemed like he knew what, you see, he was doing.          Average: 3.3
S28.16 It seemed like he knew what he, you see, was doing.          Average: 3.2
S28.17 It seemed like he knew what he was, you see, doing.          Average: 2.9
S28.20 It seemed, you see, like he knew what he was doing.          Average: 6.7[11]

*4.3 CP Subject Formation*

The edges are still grammatical for Evidential PEs, even when CP Subject Formation is involved. Curiously, CP Subject Formation seems to be the exception to Evidential PEs' inability to follow the first subject, a position which has proven to be otherwise accessible to PEs in the case of Vocatives and Mitigatory PEs. It is possible that Evidential PEs are permitted here due to the fact that the whole clause (i.e. the CP) is functioning as the subject, it is unlikely that the Evidential PE (which involves a subject and a verb by itself) can be incorrectly parsed as part of an ungrammatical sentence. This, of course, is speculation to be possibly investigated in the course of future research. At the present, the data merely show this phenomenon to be attested.

---

[11] This work has focused on simple TPs with Dummy Subjects rather than complex TPs which also bear Dummy Subjects. As such, the position following a verb where there is an embedded clause has not been probed beyond this single utterance. Such positions may merit future research, but are not otherwise investigated in the current research.

(8)          *CP Subject Formation Data*

        a.   *Left Edge:*

| | |
|---|---|
| S32.2 You know, that it was a bad idea is obvious now. | Average: 7.3 |
| S32.9 I believe, for him to go to the party, we would have to bribe him. | Average: 8.3 |

        b.   *Right Edge:*

| | |
|---|---|
| S32.1 That it was a bad idea is obvious now, you know. | Average: 7.6 |
| S32.8 For him to go to the party, we would have to bribe him, I believe. | Average: 8.4 |

        c.   *After first Subject within Fronted CP*

| | |
|---|---|
| S32.10 For him, I believe, to go to the party, we would have to bribe him. | Average: 5.4 |
| S32.18 That she, you see, would lie to us is hard to believe. | Average: 4.4 |
| S32.3 That it, you know, was a bad idea is obvious now. | Average: 6.5 |

        d.   *After Fronted CP*

| | |
|---|---|
| S32.5 That it was a bad idea, you know, is obvious now. | Average: 7.3 |
| S32.12 For him to go to the party, I believe, we would have to bribe him. | Average: 7.6 |
| S32.19 That she would lie to us, you see, is hard to believe. | Average: 7.8 |

        e.   *Between Verb and Object*

| | |
|---|---|
| S32.4 That it was, you know, a bad idea is obvious now. S67 | Average: 6.7 |
| S32.11 For him to go, I believe, to the party, we would have to bribe him. | Average: 3.8 |
| S32.15 For him to go to the party, we would have to bribe, I believe, him. | Average: 2.5 |
| S32.6 That it was a bad idea is, you know, obvious now. | Average: 7.8 |
| S58.4 That George was angry was, you see, clear. | Average: 4.0 |

The significant difference between S32.6 and S58.4 is a curious one given the structural similarities between the two utterances. A survey of the suprasegmental shows that while the intonation is also very similar, there is a difference in pause:

(i)   S32.6 That it was a bad idea is, you know, obvious now.   Average: 7.8
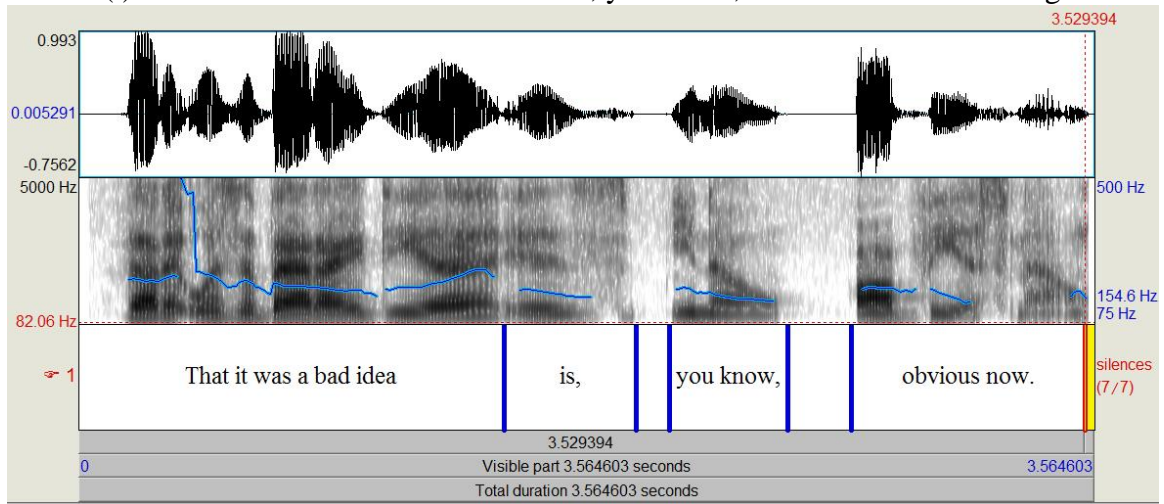


(ii)   S58.4 That George was angry was, you see, clear.   Average: 4.0
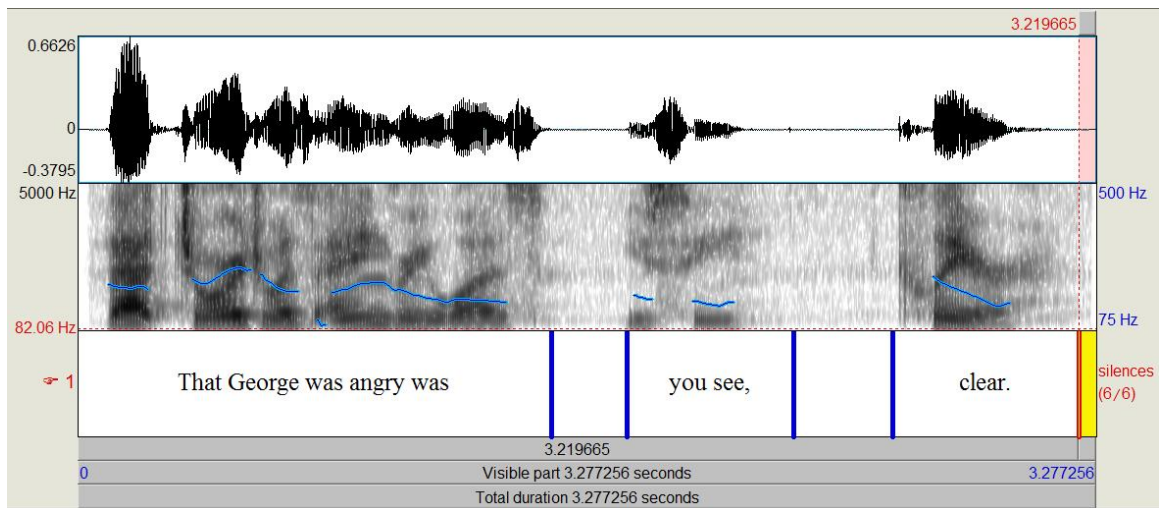


(iii)   *Pause Lengths*

|  | Pause Before PE | Pause After PE |
|---|---|---|
| S32.6 | 0.12 seconds | 0.22 seconds |
| S58.4 | 0.24 seconds | 0.32 seconds |

Whether or not this difference of a tenth of a second per pause is related to the variation in grammaticality is not clear from the data.

      *f.   Other*

| | |
|---|---|
| S32.7 That it was a bad idea is obvious, you know, <u>now</u>. | Average: 5.6 |
| S32.13 For him to go to the party, we would, I believe, have to bribe him. | Average: 6.7[12] |
| S33.14 For him to go to the party, we would have to, I believe, bribe him. | Average: 5.6 |
| S32.16 For him to go to the party, we would have to bribe, I believe, him. | Average: 2.5 |
| S33.20 That she would lie to us is hard, you see, to believe. | Average: 4.5 |

     *4.4 WH Words*

It is interesting to note that, unlike Vocatives, which are always acceptable at the edges, Evidential PEs are always ungrammatical when a [+question] WH word is involved. This makes intuitive sense as Evidential PEs serve the purpose of informing the hearer of the strength of the body of evidence behind an assertion. Questions, much the opposite of assertions, should not need any Evidential PEs[13] as they have no propositional content, but rather, are used to request it. On the other hand, relative clause WH phrases do allow an Evidential PE at either edge. The position after the first subject is variable when a [+R] WH phrase is involved.

---

[12] While curious and possibly potentially grammatical, further inquiry into this particular position will have to wait for future research.

[13] This observation is also supported by the data for "do" questions found in Survey 34: 6 – 12:

| | |
|---|---|
| S34.6 Do you think he plays basketball, you see? | Average: 2.4 |
| S34.7 You see, do you think he plays basketball? | Average: 3.0 |
| S34.8 Do you, you see, think he plays basketball? | Average: 2.9 |
| S34.9 Do you think, you see, he plays basketball? | Average: 2.8 |
| S34.10 Do you think, you see, that he plays basketball? | Average: 2.9 |
| S34.11 Do you think he, you see, plays basketball? | Average: 3.4 |
| S34.12 Do you think he plays, you see, basketball? | Average: 2.4 |

*(9) [+Q]*

### a. *Left Edge*

| | |
|---|---|
| S31.5 You see, where did he move? | Average: 2.5 |
| S31.6 I believe, when did she go to the store? | Average: 3.1 |
| S31.8 You see, which car is yours? | Average: 3.0 |
| S31.11 You know, which movie should we see? | Average: 5.8[14] |
| S31.17 I expect, where did he go? | Average: 2.0 |

### b. *Right Edge*

| | |
|---|---|
| S31.1 Where did he move, you see? | Average: 3.3 |
| S31.10 Which car is yours, you see? | Average: 3.6 |
| S31.15 Which movie should we see, you know? | Average: 2.0 |
| S31.7 When did she go to the store, I believe? | Average: 2.9 |
| S31.16 Where did he go, I expect? | Average: 2.7 |

### c. *After Subject*

| | |
|---|---|
| S31.4 Where did he, you see, move? | Average: 2.1 |
| S31.12 Which movie, you know, should we see? | Average: 5.1 |
| S31.20 Where did he, I expect, go? | Average: 2.7 |
| S31.9 Which car, you see, is yours? | Average: 3.6 |

### d. *After WH*

| | |
|---|---|
| S31.18 Where, I expect, did he go? | Average: 2.9 |
| S31.2 Where, you see, did he move? | Average: 3.4 |

### e. *Other*

| | |
|---|---|
| S31.3 Where did, you see, he move? | Average: 2.4 |
| S31.13 Which movie should we, you know, see? | Average: 5.5 |
| S31.14 Which movie should, you know, we see? | Average: 4.9 |
| S31.19 Where did, I expect, he go? | Average: 2.8 |

---

[14] It is possible that this comparatively higher grammaticality rating (while still inconclusive) may be the result of subjects parsing the utterance as one proposition rather than a parenthetical followed by a proposition (i.e. "[Do] you know which movie we should see?" versus "You know, which movie should we see?").

*(10)        [+R]*

    *a.  Left Edge*

S58.5 You know, I'm not sure which piano is broken.                    Average: 9.0
S58.6 You see, Karen doesn't remember which book she                   Average: 7.9
   recommended.

    *b.  Right Edge*

S58.7 I'm not sure which piano is broken, you know.                    Average: 7.1
S58.8 Karen doesn't remember which book she recommended,              Average: 7.5
   you see.

    *c.  After First Subject*

S58.9 I, you see, am not sure which piano is broken.                   Average: 4.1
S58.10 Karen, you know, doesn't remember which book she               Average: 5.0
   recommended.
S58.11 Susan, I believe, knows where the party is.                    Average: 8.0
S65.5 Katie, I believe, asked which car was yours.                    Average: 8.0

The variability in grammaticality for this position is curious. Given the near structural equivalence of all four of these utterances, it is possible that the difference in grammaticality is resultant from the usage of different particular parentheticals. While this is possible, there is one other obvious remaining variable – positive versus negative statements. In the S58.9 and S58.10, negation is present and the grammaticality judgments are inconclusive to ungrammatical. In S58.11 and S65.5, however, there is no negation and a statistically significant raise in grammaticality. Determining whether the particular PE (i.e. "I believe") or the negation is the responsible variable would require additional study beyond the scope of this research.

    *d.  After [+R] WH Word*

S58.12 I am not sure which, you see, piano is broken.        Average: 3.6
S58.13 Karen doesn't remember which, you know, book she    Average: 4.1
    recommended.
S58.14 Susan knows where, I believe, the party is.          Average: 5.0

    *e.  After [+R] WH Phrase*

S58.15 I am not sure which piano, you see, is broken.      Average: 5.0
S58.16 Karen doesn't remember which book, you know, she   Average: 4.3
    recommended.

    *4.5 Auxiliary Verb Chains*

Perhaps predictably, when the complex structure of an auxiliary chain is involved, only the edges are accessible to Evidential PEs. All other positions result in ungrammaticality or inconclusivity.

    *(11)      Auxiliary Chains*

    *a.  Left Edge*

S58.17 You know, John may have been taking dance lessons.   Average: 9.0
S58.18 You see, Susan could have gone on the camping trip.   Average: 8.4

    *b.  Right Edge*

S30.1 She will be going to college next fall, you see.      Average: 8.5
S30.11 It is possible that he could have been at the party, you see.   Average: 8.8

   *c. After First Subject*

S58.19 John, you know, may have been taking dance classes.  Average: 6.1
S58.20 Susan, you see, could have gone on the camping trip.  Average: 6.9[15]

   *d. After 1ˢᵗ Auxiliary*

S30.2 She will, you see, be going to college next fall.  Average: 4.7
S30.6 He had, I expect, been planning to move, but it didn't work out. Average: 5.9
S30.8 It is possible that he could, you see, have been at the party. Average: 5.0

   *e. After 2ⁿᵈ Auxiliary*

S30.3 She will be, you see, going to college next fall.  Average: 4.3
S30.7 He had been, I expect, planning to move, but it didn't work out. Average: 5.4
S30.9 It is possible that he could have, you see, been at the party. Average: 5.1

   *f. After Verb*

S30.4 She will be going, you see, to college next fall.  Average: 3.9
S30.5 He had been planning, I expect, to move, but it didn't work out. Average: 5.8
S30.10 It is possible that he could have been, you see, at the party. Average: 4.1

  *4.6 PP Chains*

   Where PP chains are involved, it seems that, with the exception of the edges, Evidential PEs are inconclusive or variable in all possible interpolation points. The variability of certain positions, such as before the first PP, between the first and second PPs, and between the second and third PPs may warrant further study.

---

[15] S58.20's borderline score could be argued to be grammatical, but given S58.19's score and the focus of this work – the definitely grammatical positions – the range of inconclusivity for this position will have to wait for another time.

*(12)*     *PP Chains*

    a.  *Left Edge*

S59.1 You see, Susan went camping in the mountains last weekend    Average: 8.6
    with Karen.
S59.2 You know, John wanted to see the movie at the premiere on    Average: 9.0
    Saturday with everyone.

    b.  *Right Edge*

S30.13 It is possible that he could have been at the party on Tuesday,   Average: 8.4
    you see.
S30.14 It is possible that he could have been at the party on Tuesday    Average: 7.0
    for a while, you see.
S30.16 She got lost on the way to the house, you know.    Average: 8.7
S30.18 She got lost on the way to the house for two hours, you know.    Average: 7.8
S30.20 She got lost on the freeway for two hours on the way to    Average: 7.9
    the house, you know.

    c.  *After First Subject*

S59.3 Susan, you see, went camping in the mountains last weekend    Average: 6.9
    with Karen.
S68.8 Anna, I hear, graduated from college with honors this May.    Average: 8.7

    d.  *Before 1<sup>st</sup> PP*

S59.5 George was waiting, I believe, at the movie theater on    Average: 6.9
    Saturday for three hours.
S59.6 Susan went camping, you see, in the mountains last weekend    Average: 6.3
    with Karen.
S59.8 George was waiting, I believe, at the movie theater on Saturday   Average: 6.7
    for three hours.
S59.19 Susan set up her tent, you see, next to the fire.    Average: 6.0
S59.20 George lost his keys, I hear, in the woods.    Average: 6.9

These data are interesting given that all the tested utterances score an average

which is at the high end of inconclusive. It is possible that these can be considered

grammatical given the statistical insignificance of a difference between any of these

scores and the minimum grammatical score of 7.0, but the fact that none of them have

broken that barrier is odd. Clearly, this position is less grammatical than, say, the left edge, but the degree to which this position is grammatical or inconclusive would take more research to determine. For now, I list this position among those dubbed "potentially grammatical".

     e.   *After 1$^{st}$ PP*

| | |
|---|---|
| S30.12 It is possible that he could have been at the party, you see, on Tuesday. | Average: 5.4[16] |
| S30.19 She got lost on the freeway, you know, for two hours on the way to the house. | Average: 5.7 |

     f.   *After 2$^{nd}$ PP*

| | |
|---|---|
| S30.15 It is possible that he could have been at the party on Tuesday, you see, for a while. | Average: 4.5 |
| S30.17 She got lost on the way to the house, you know, for two hours. | Average: 6.3 |
| S59.9 Susan went camping in the mountains last weekend, you see, with Karen. | Average: 5.5 |

*4.7 Coordinated Structures*

*4.7.1 Coordinated DPs*

Much like its behavior with CP Subject Formation, Evidential PEs are permitted to directly follow a coordinated DP. The edges are, as usual, grammatical, but all other potential positions are disallowed.

---

[16] It may be worth noting that one subject commented "It sounded fine until the person added 'on Tuesday' then [sic] it sounded very weird", showing the intuition that the right edge is fine for PP chains, but appearing before the last PP is unusual.

*(13)*     *Coordinated DPs*

    a. *Left Edge*

S35.2 You see, John and Mary are coming to the party.        Average: 8.7
S35.10 I hear, the yard and the pool were in terrible condition.    Average: 8.6

    b. *Right Edge*

S35.9 The yard and the pool were in terrible condition, I hear.    Average: 8.8
S66.4 The dog and the bird were great friends, you know.    Average: 9.2
S66.5 The dog and the bird were great friends, I believe.    Average: 8.7

    c. *After Coordinated DPs*

S35.1 John and Mary, you see, are coming to the party.    Average: 7.5
S35.14 The yard and the pool, I hear, were in terrible condition.    Average: 8.2

    d. *Before Coordinator*

S35.3 John, you see, and Mary are coming to the party.    Average: 4.0
S35.11 The yard, I hear, and the pool were in terrible condition.    Average: 6.9
S59.13 George, I believe, and Susan are coming to the party.    Average: 6.2
S59.14 John, you know, and Karen might be late.    Average: 4.4

This position, while technically ranging from ungrammatical to inconclusive, holds enough variation to merit further inquiry. Interestingly, the difference between S35.3 and S35.11 does not seem to be due to structure (as noted by the insignificant difference between S35.3 and S59.13, whose coordinated structures are of different types), but nor does it seem to be prosodic.

(i)      S35.3 John, you see, and Mary are coming to the party.          Average: 4.0
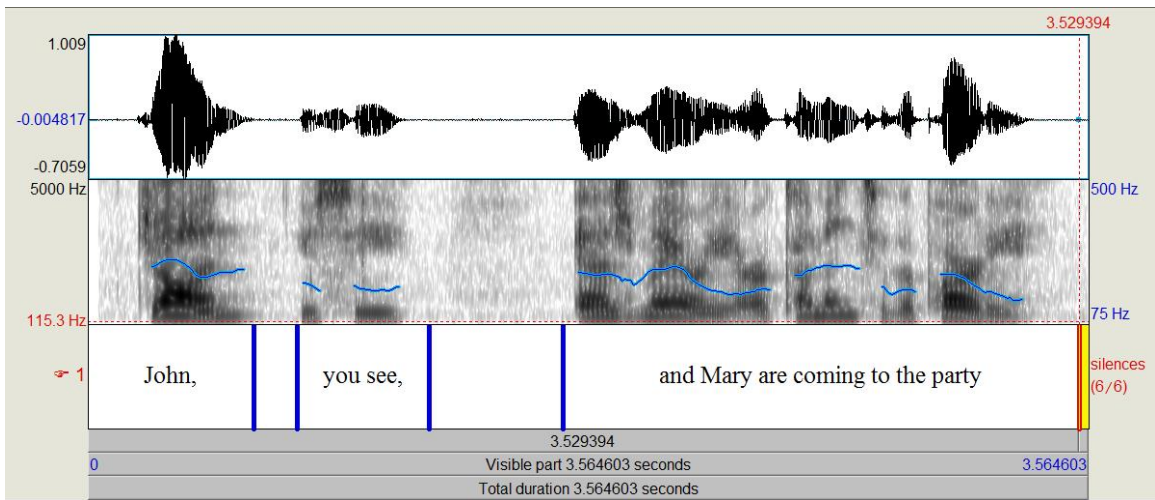


(ii)     S35.11 The yard, I hear, and the pool were in terrible          Average: 6.9
         condition.
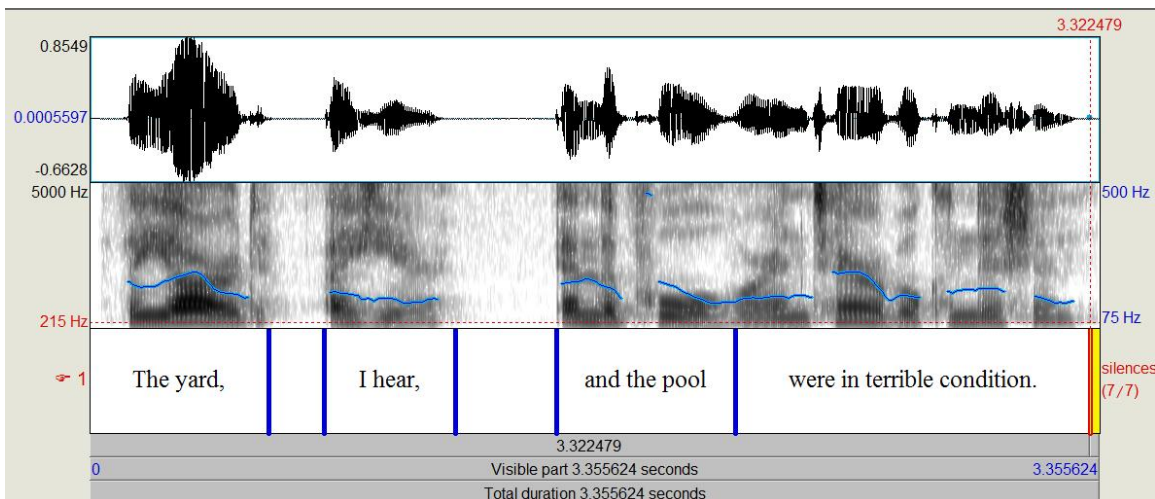


An examination of the surprasegmental evidence does not shed light on the issue – while the differences in the pause lengths of the PEs' "comma intonation" may vary, they do so to a seemingly irrelevant extent. S35.3's first pause is 0.15 seconds and the second is 0.48 seconds, which is comparable to S59.13's respective 0.18 and 0.34 in my opinion. There is always the chance that such a seemingly small detail could result in

these significant differences in grammaticality, but as this work's scope is limited to determining conclusively grammatical positions and the fact that there is only one arguably "grammatical" judgment for this position, this is an investigation which will have to be left to future study.

### e. After Coordinator

S35.4 John and, you see, Mary, are coming to the party.          Average: 3.2
S35.12 The yard and, I hear, the pool were in terrible condition.          Average: 4.8

### f. After Verb

S35.5 John and Mary are, you see, coming to the party.          Average: 4.8
S59.15 George and Susan are, I believe, coming to the party.          Average: 6.3
S35.15 The yard and the pool were, I hear, in terrible condition.          Average: 6.6
S35.6 John and Mary are coming, you see, to the party.          Average: 4.5
S59.16 George and Susan are coming, I believe, to the party.          Average: 5.9

### g. Other

S35.7 John and Mary are coming to, you see, the party.          Average: 3.1
S35.8 John and Mary are coming to the, you see, party.          Average: 2.9
S35.13 The yard and the, I hear, pool were in terrible condition.          Average: 2.8
S35.16 The yard and the pool were in, I hear, terrible condition.          Average: 5.4
S35.17 The yard and the pool were in terrible, I hear, condition.          Average: 3.0

### 4.7.2 Coordinated VPs

Coordinated VPs seem to allow for more grammatical positions for the Evidential PEs. The edges, following the subject, before and after the coordinator, and between the rightmost VP's VP and PP are all grammatical.

*(14)*        *Coordinated VPs*

    a.  *Left Edge*

| | |
|---|---|
| S35.20 I believe, John came to the party and followed us to the afterparty. | Average: 8.4 |
| S36.7 You see, Ben talked all night and annoyed all the guests. | Average: 9.4 |

    b.  *Right Edge*

| | |
|---|---|
| S35.19 John came to the party and followed us to the afterparty, I believe. | Average: 8.5 |
| S36.9 Ben talked all night and annoyed all the guests, you see. | Average: 8.6 |

    c.  *After First Subject*

| | |
|---|---|
| S36.1 John, I believe, came to the party and followed us to the afterparty. | Average: 7.7 |
| S36.8 Ben, you see, talked all night and annoyed all the guests. | Average: 7.8 |

    d.  *Before Coordinator*

| | |
|---|---|
| S36.3 John came to the party, I believe, and followed us to the afterparty. | Average: 8.3 |
| S36.11 Ben talked all night, you see, and annoyed all the guests. | Average: 7.8 |

    e.  *After Coordinator*

| | |
|---|---|
| S36.4 John came to the party and, I believe, followed us to the afterparty. | Average: 7.4 |
| S66.6 The dog ate all the food and, I believe, knocked over the table. | Average: 6.9 |
| S59.17 Susan went camping and, I hear, got stuck in traffic. | Average: 6.6 |
| S36.12 Ben talked all night and, you see, annoyed all the guests. | Average: 6.0 |
| S59.18 Karen was late and, you know, didn't bring anything. | Average: 5.5 |

This position seems curiously variable when it comes to the average grammaticality judgments. The difference between S36.4's score and that of S36.12 is statistically significant; as is the difference between S36.4 and S59.18. The others (S59.17 and S66.6) are not significantly different than S36.4's grammatical 7.4. Given the similarity in sentence structure, intonation was investigated. However, there seems to

be no obvious difference between the intonation of the grammatical utterances and the inconclusive ones:

(i)     S36.4 John came to the party and, I believe, followed us to the   Average: 7.4
          afterparty.
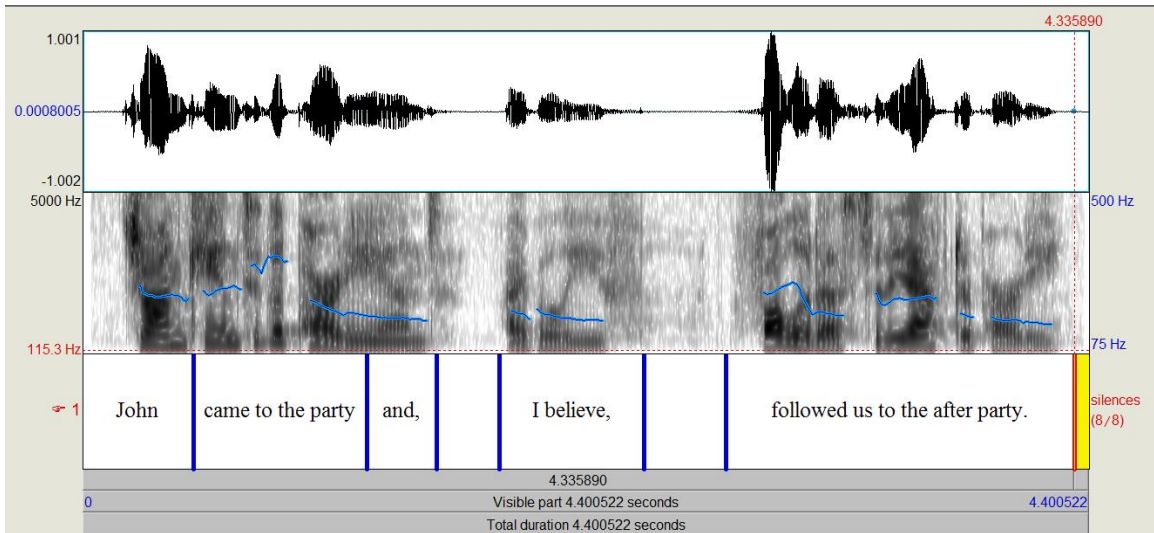


(ii)    S66.6 The dog ate all the food and, I believe, knocked over     Average: 6.9
          the table.
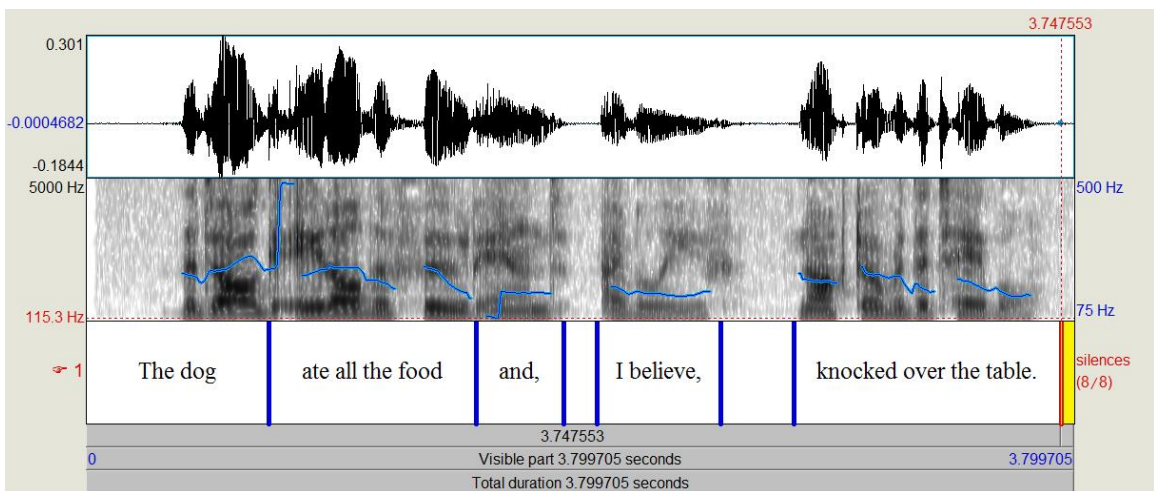
(iii)    S59.17 Susan went camping and, I hear, got stuck in traffic.    Average: 6.6
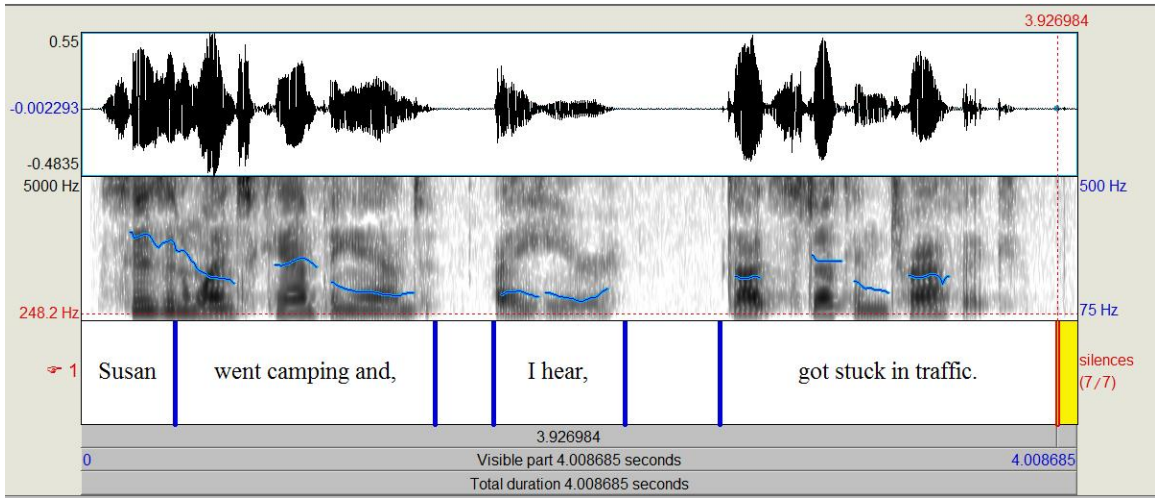


(iv)    S36.12 Ben talked all night and, you see, annoyed all the guests. Average: 6.0
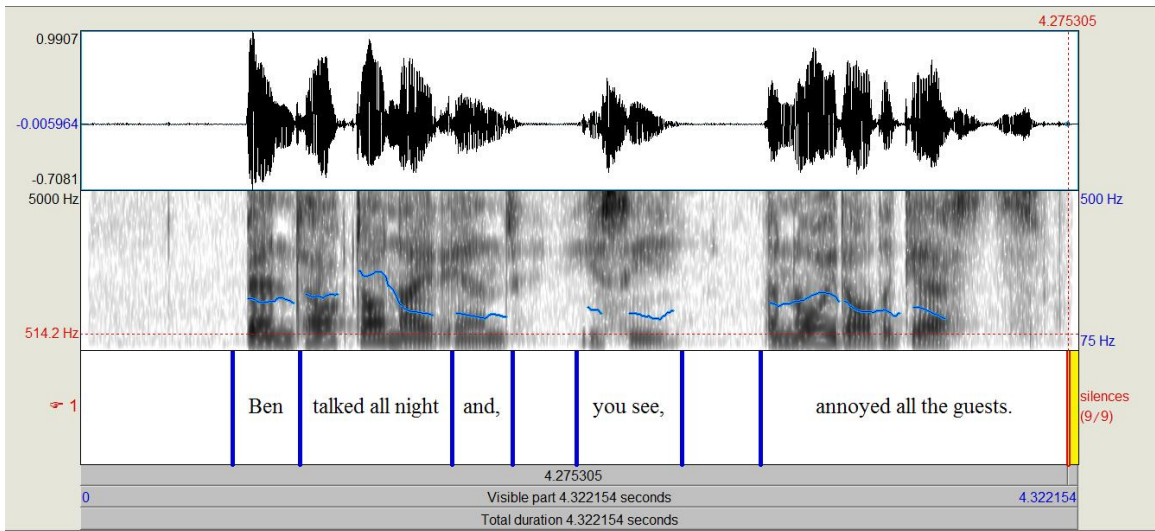
(v)     S59.18 Karen was late and, you know, didn't bring anything.    Average: 5.5
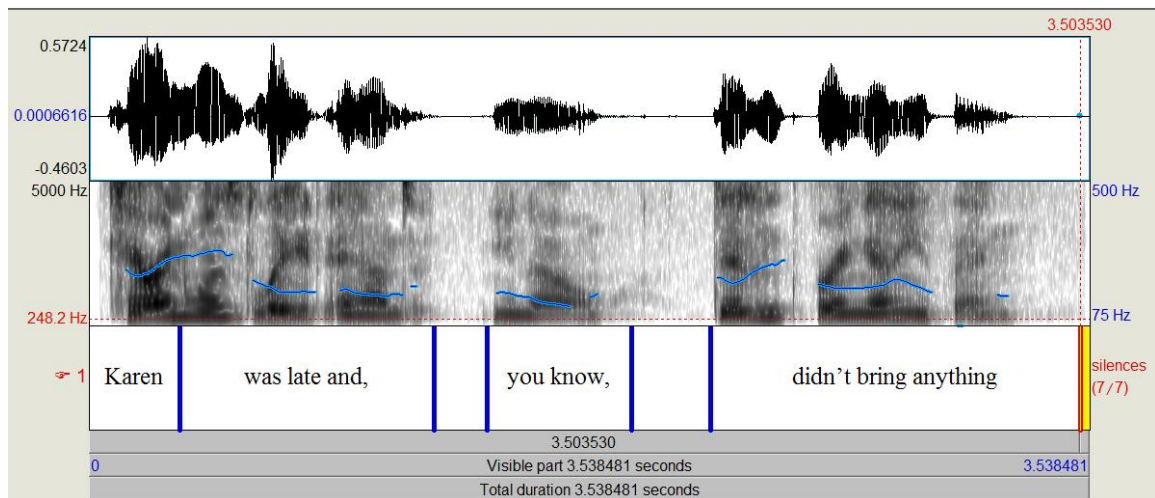


Given the structural and prosodic similarities between these utterances (particularly noticeably when comparing S36.4 to S36.12), it is possible that the difference in grammaticality reflects the Evidential PE used. The grammatical (or statistically indistinct from grammatical) utterances, S36.4, S59.17, and S66.6 all feature "I believe" or "I hear" versus the "you see" and "you know" present in the inconclusive utterances. Further research would be required to confirm this speculation, but as it stands, the data show that this is a potentially grammatical interpolation point for Evidential PEs.

### f.   *After First Verb*

S36.2 John came, I believe, to the party and followed us to the afterparty.    Average: 5.9

S36.10 Ben talked, you see, all night and annoyed all the guests.    Average: 4.0

S66.7 The dog ate, I believe, all the food and knocked over the table.    Average: 5.5

g. *After Second Verb*

S36.5 John came to the party and followed, I believe, us to the                Average: 3.5
    afterparty.
S36.13 Ben talked all night and annoyed, you know, all the guests.      Average: 3.8

h. *Between Verb Phrase and Single PP Adjunct*

S36.6 John came to the party and followed us, I believe, to the               Average: 7.8
    afterparty.
S66.8 The dog ate all the food and begged us, you see, for more treats. Average: 7.3
S66.9 Susan hated the movie and left us, you know, in the theater.      Average: 6.4[17]

### 4.7.3 Coordinated TPs

Coordinated TPs bring a wealth of intriguing data when it comes to Evidential PEs. The edges are grammatical, of course, as is the position following the first subject, though it has more variation than one would hope, as does the position following the first subject in the second (right-most) TP. The variability doesn't stop there – the position following the verb is oddly diverse, as is the position preceding the coordinator. Other positions are inconclusive or ungrammatical.

(15)        *Coordinated TPs*

a. *Left Edge*

S36.17 You know, he heard that Bill would leave and Susan would        Average: 8.4
    stay.
S60.1 You see, George lost his keys and Susan overslept.                    Average: 8.7
S60.2 I hear, Karen is working, but John will come to the party.            Average: 6.8
S68.7 I believe, Katie got a new job and Anna graduated.                    Average: 6.3

---

[17] Since the T-Test has determined that the difference between S66.8 and S66.9 is statistically insignificant, this position is considered grammatical.

The significantly lower score of S60.2 and S68.7 versus S60.1 and S36.17 is likely a result of this particular PE's preference for the right edge, not unlike the DP with PP Vocative's preference for the left edge[18]. Comments on S60.2 and S68.7 suggest that the utterance is better without the "comma intonation" and parsed as one proposition rather than a parenthetical attached to a proposition (e.g. "I hear ~~that~~ Karen is working…" rather than "I hear, Karen is working…").

| | | |
|---|---|---|
| (i) | S60.2 I hear, Karen is working, but John will come to the party. | Average: 6.8 |

Comments:

    a. It was an incomplete thought, at least the beginning.
    b. Should not be pause after "I hear."

| | | |
|---|---|---|
| (ii) | S68.7 I believe, Katie got a new job and Anna graduated. | Average: 6.3 |

Comments:

    a. It works there but the way she spoke it sounded weird.

Future research could probe this issue more fully, but the present data stand.

### b. *Right Edge*

| | |
|---|---|
| S36.14 He heard that Bill would leave and Susan would stay, you know. | Average: 7.9 |
| S60.3 George lost his keys and Susan overslept, you see. | Average: 7.9 |
| S60.4 Karen is working, but John will come to the party, I hear. | Average: 7.9 |

---

[18] See Chapter 3: Vocatives for details.

c. *After First Subject of Left-most TP*

S60.5 George, you see, lost his keys and Susan overslept.        Average: 6.7
S60.6 Karen, I hear, is working, but John will come to the party.        Average: 7.9
S60.7 Fred, you see, said that George lost his keys and Susan        Average: 6.1
     overslept.
S66.10 Anna, I believe, mentioned that Karen was running late and        Average: 8.3
     Susan had a flat tire.

This set of data is curiously variable. While the structures of S60.5 and S60.6 are similar, their differences in grammaticality are statistically significant. The reason does not seem to be prosodic as the intonation for each utterance seems to be comparable to the other.

(i)      S60.5 George, you see, lost his keys and Susan overslept.        Average: 6.7
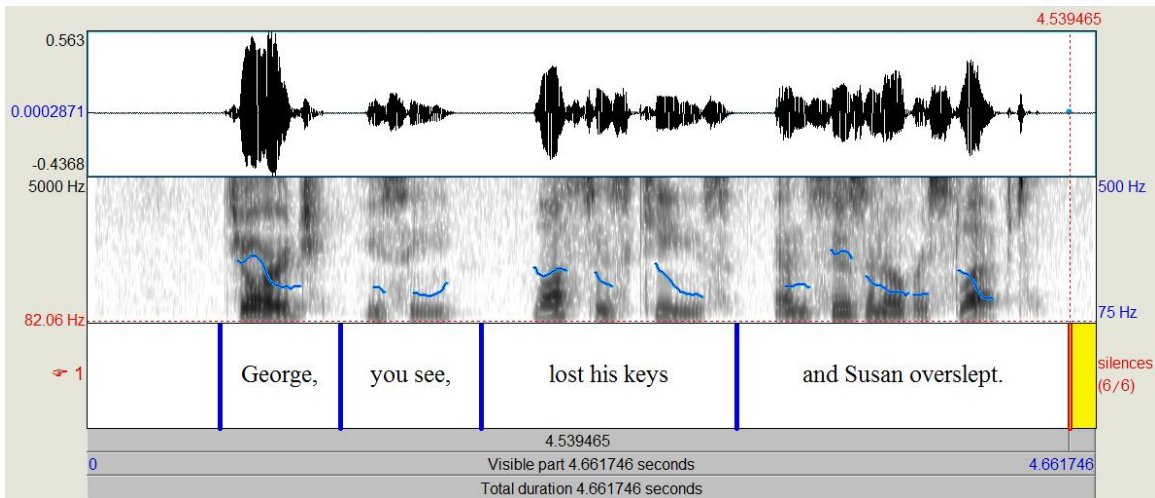
(ii)     S60.6 Karen, I hear, is working, but John will come to          Average: 7.9
             the party.
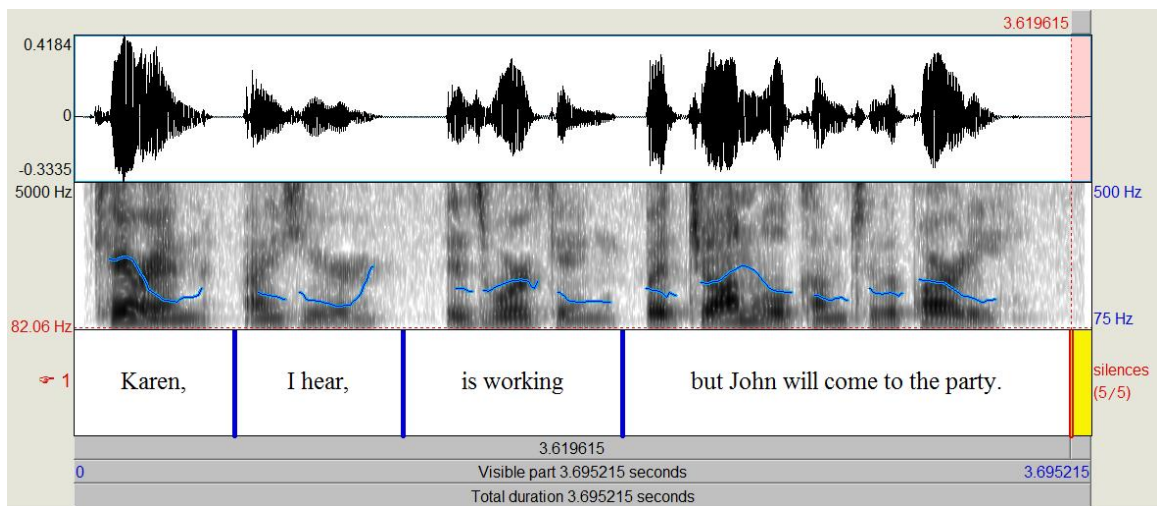


Similarly, the significant difference between the structurally comparable S60.7 and

S66.10 does not seem to be due to prosody either.

(iii)     S60.7 Fred, you see, said that George lost his keys          Average: 6.1
             and Susan overslept.
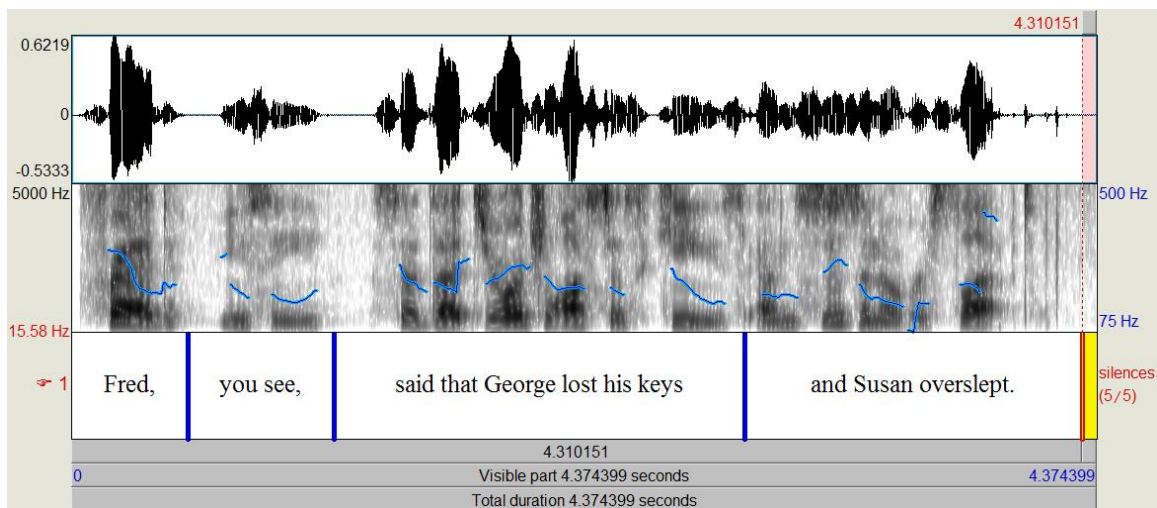
(iv)      S66.10 Anna, I believe, mentioned that Karen was                     Average: 8.3
            running late and Susan had a flat tire.
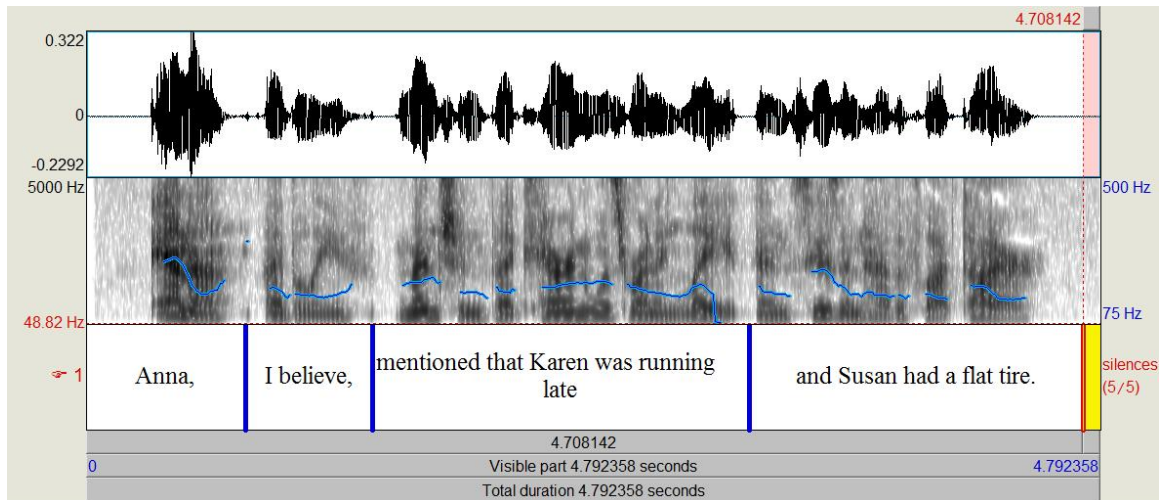


The differences between these sets of utterances do not seem structural or prosodic, however, once again we find that "I believe" and "I hear" are patterning both together with one another and distinctly from "you know and "you see". It stands to reason that this might be the underlying issue – the particular Evidential PE used. While these data are interesting, they cannot conclusively determine the factory by which this variation in grammaticality judgments is born. While certainly this position is grammatical for "I believe" and "I hear", it is less clear as to whether or not other Evidential PEs are welcome in this interpolation point. Determining whether it is truly individual PE usage which is responsible for the statistically significant variation in grammaticality relegated to future research.

### d. Before Complementizer

S36.15 He heard, you know, that Bill would leave and Susan would     Average: 6.9
 stay.
S60.8 Fred said, you see, that George lost his keys and Susan     Average: 4.4
 overslept.
S66.11 Anna mentioned, I believe, that Karen was running late and     Average: 7.6
 Susan had a flat tire.

These data show variation – the difference between S60.8 and the other utterances

is significant, though the difference between S60.8 and S66.11 is not. Given the structural

similarity of these utterances, the suprasegmental level was investigated. The only

notable differences in intonation seems to be that in S60.8, "Fred" was emphasized rather

than "said", and that the difference in pitch between these two adjacent words was

extreme. In the other utterances, the opposite pattern was found.

(i)     S36.15 He heard, you know, that Bill would leave and     Average: 6.9
     Susan would stay.
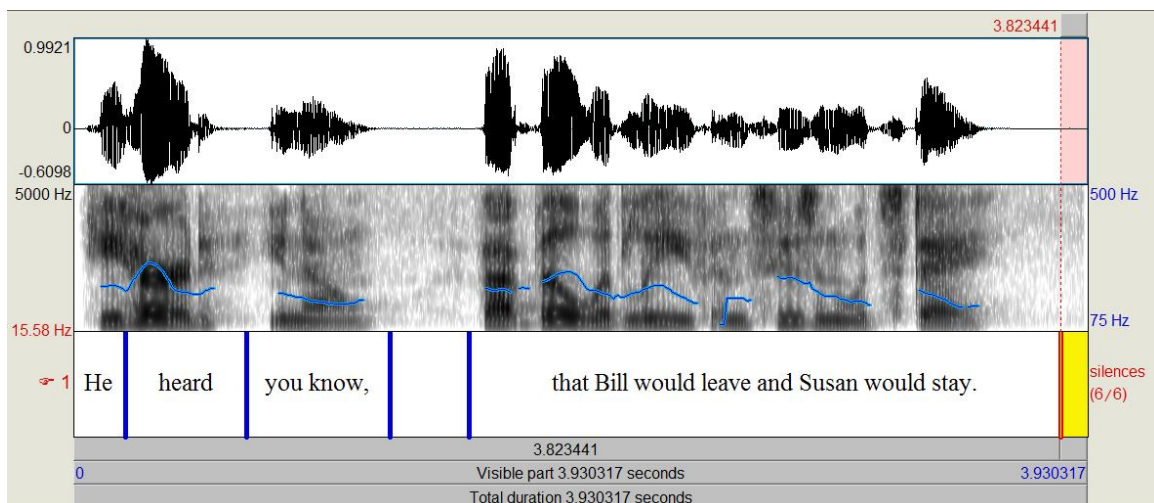
(ii)    S60.8 Fred said, you see, that George lost his keys                Average: 4.4
        and Susan overslept.
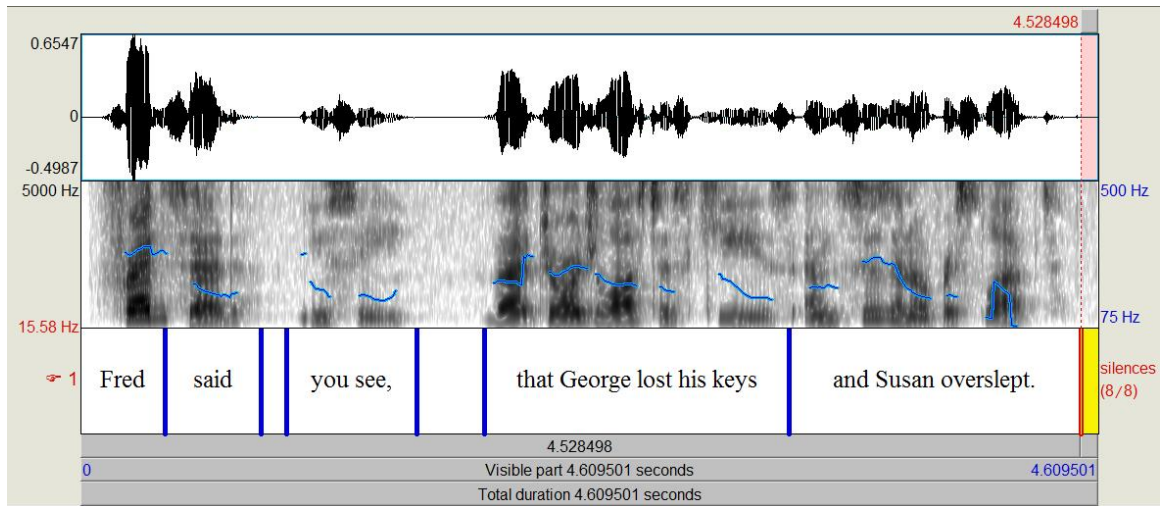


(iii)   S66.11 Anna mentioned, I believe, that Karen was                  Average: 7.6
        running late and Susan had a flat tire.
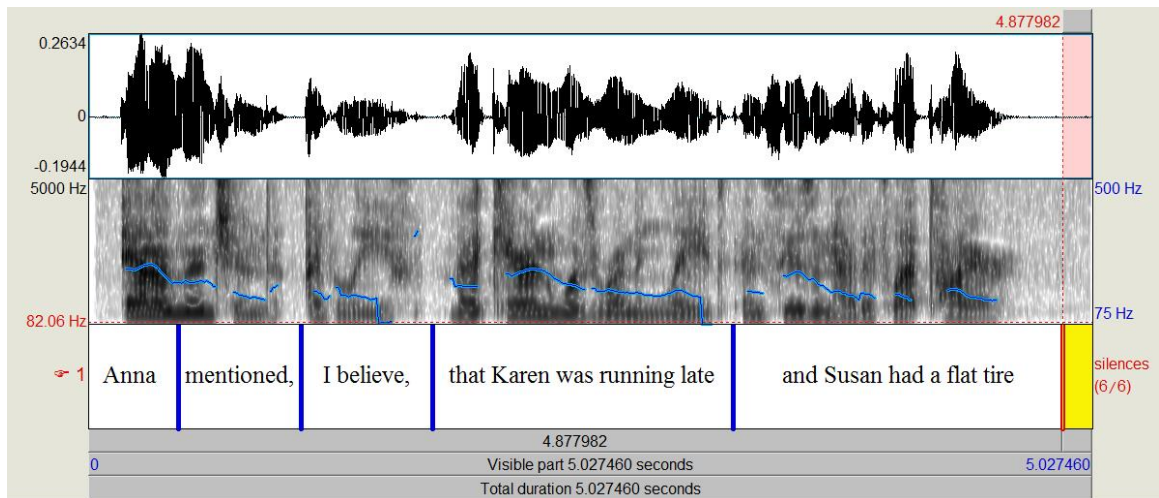


Given this fact, it is reasonable to conclude that without the confound of the incorrect

intonation, this position is considered grammatical.

*e. Before Coordinator*

S36.18 He heard that Bill would leave, you know, and Susan would     Average: 6.1
    stay.
S68.9 Fred said that Katie got a new job, you know, and Anna     Average: 7.2
    graduated.
S65.6 George lost his keys, you see, and Susan overslept.     Average: 8.5
S65.7 George lost his keys, you know, and Susan overslept.     Average: 7.7

The difference between S36.18 its sister utterance, S68.9, is statistically significant. An investigation into the suprasegmental level shows that the issue is prosodic – in S36.18, the verb "heard" was emphasized, but in S68.9, the subject "Fred" was emphasized:

(i)     S36.18 He heard that Bill would leave, you know,     Average: 6.1
        and Susan would stay.
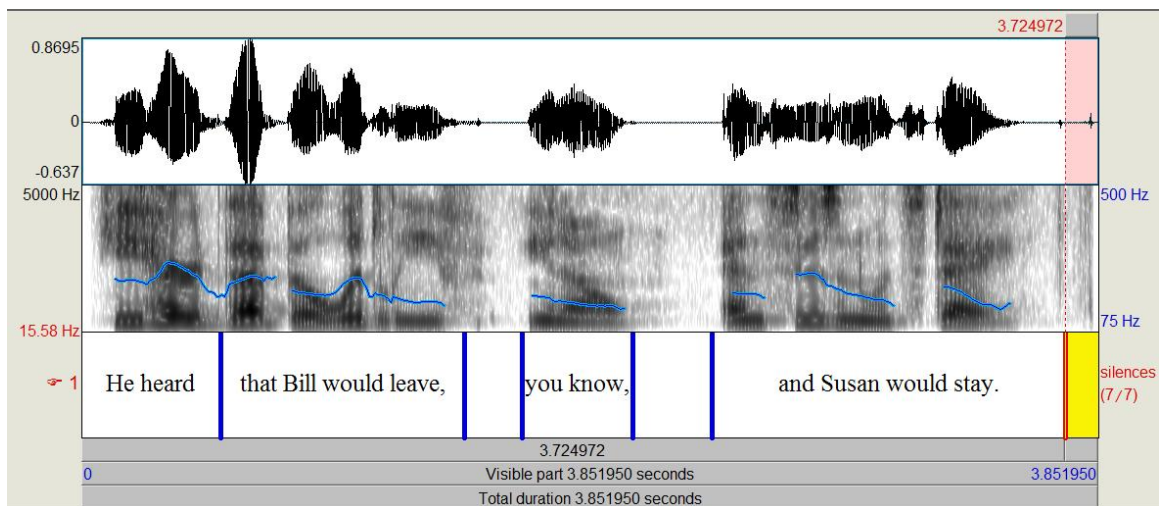
(ii)    S68.9 Fred said that Katie got a new job, you know, and Anna   Average: 7.2
        graduated.
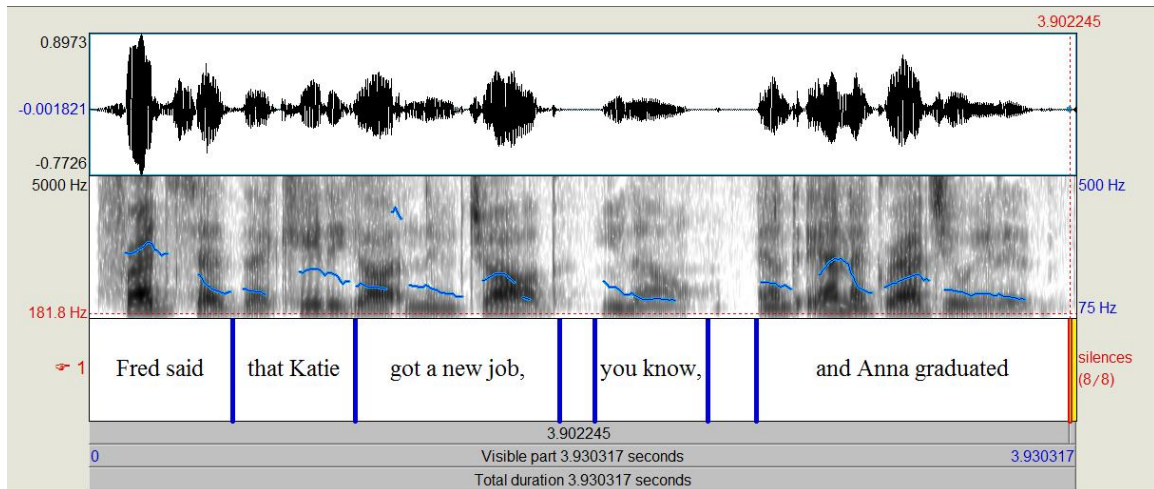


Given this fact, and the grammatical judgments for three other structurally equivalent

utterances, this position is considered grammatical.

### f.  After Coordinator

S36.19 He heard that Bill would leave and, you know, Susan would     Average: 6.2
    stay.
S60.11 George lost his keys and, you see, Susan overslept.           Average: 4.7
S60.12 Karen is working but, I hear, John will come to the party.    Average: 6.1
S60.13 Karen is working but, you know, John will come to the party.  Average: 5.3

### g.  After First Subject in Second TP

S68.11 Katie got a new job and Anna, you know, graduated.           Average: 6.6
S69.15 Karen is moving and John, you know, bought a cat.            Average: 7.2
S36.20 He heard that Bill would leave and Susan, you know, would    Average: 5.4
    stay.
S66.13 Anna mentioned that Karen was running late and Susan,        Average: 8.1
    I believe, had a flat tire.
S68.12 Fred said that Katie got a new job and Anna, you know,       Average: 6.8
    graduated.

At first, the data for this position seem oddly mixed. However, the difference between S68.11 and S69.15, as well as the one between S68.12 and S69.15 are insignificant. Therefore, these can be considered grammatical despite their technically inconclusive status. The remaining issue presented by S36.20 can be explained away due to prosodic differences between it and S66.13, for example.

(i)     S36.20 He heard that Bill would leave and Susan,     Average: 5.4
          you know, would stay.
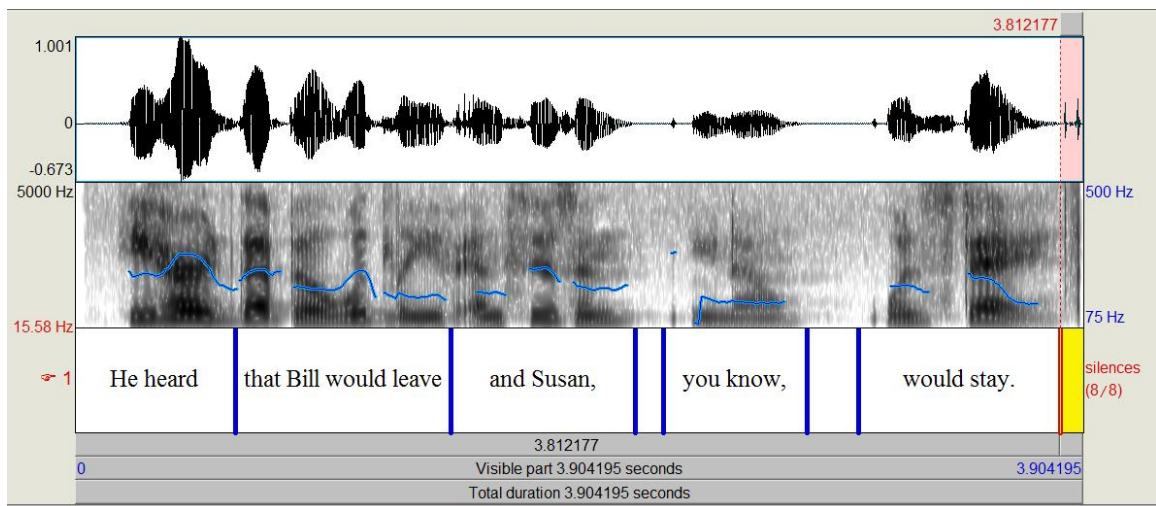


(ii)     S66.13 Anna mentioned that Karen was running late,     Average: 8.1
          and Susan I believe, had a flat tire
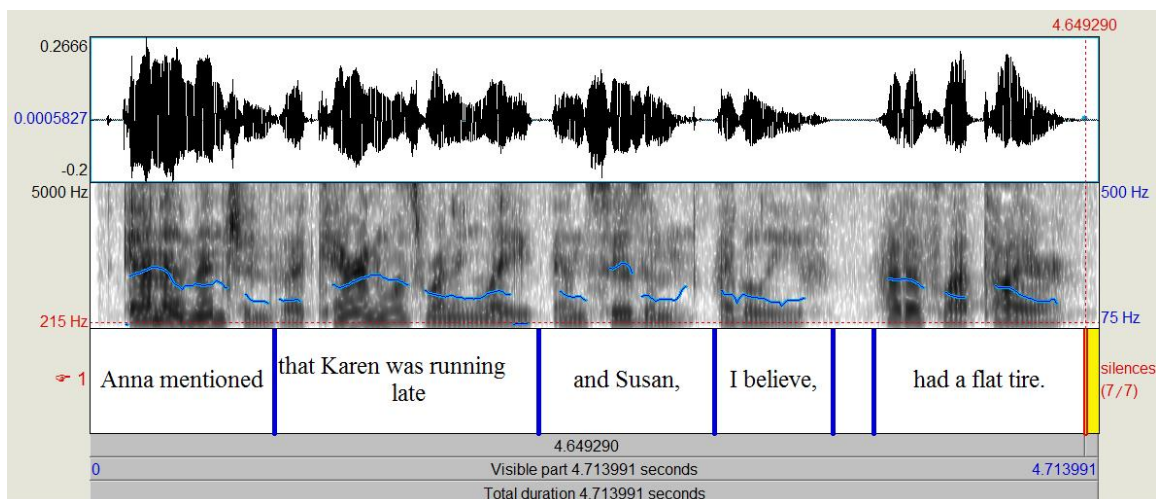
S36.20 emphasizes the verb "heard" rather than the subject "he", whereas the grammatical S66.13 employs the opposite intonation. This, then, can be considered a confound by which the datum may be dismissed and the position considered grammatical.

### h. After Complementizer

S36.16 He heard that, you know, Bill would leave and Susan would          Average: 6.1
stay.
S66.12 Anna mentioned that, I believe, Karen was running late and          Average: 6.2
Susan had a flat tire.

## 5 Conclusions

### 5.1 Grammatical Interpolation Points

Evidential parenthetical expressions have been shown to grammatically appear in several positions. These positions follow. Where it cannot be known whether the PE left-adjoins to one item or right-adjoins to its sister, a dashed line is used and connects to the joint of the tree rather than showing the actual adjunction structure as the exact structure is unknown.

1.  The Left-Edge

2. The Right-Edge
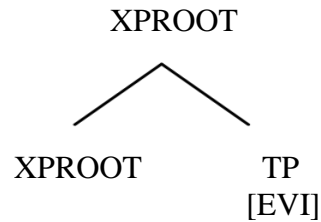
XPROOT

```
        XPROOT
       /      \
   XPROOT      TP
             [EVI]
```

3. After the first subject

Because the utterance would be pronounced identically whether the Evidential PE DP right-adjoins to the subject DP or left-adjoins to T', with the present data, it cannot be determined precisely where the PE goes. However, it is clear that the DP may occur immediately after the first subject, even if that subject is a CP or a coordinated DP. However, in the case of following the first subject of the left-most TP in a coordinated TP, only "I believe" and "I hear" have been proven conclusively grammatical in this position (see Section 4.7.3 for discussion). Additionally, this position, when the subject is a referring expression, may present with variability with pronouns and ungrammaticality with dummy subjects.

```
            TPROOT
          /    |    \
        DP    TP     T'
            [EVI]   /  \
                   T    VP
```
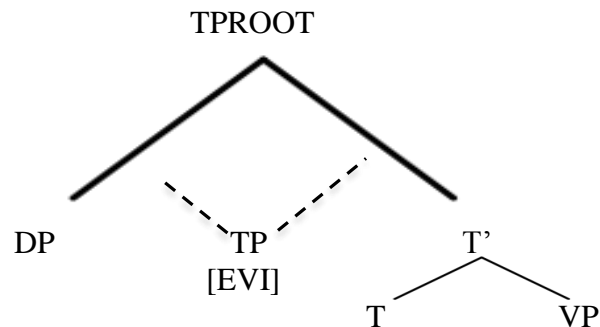
4.   Before the Complementizer in an Embedded CP
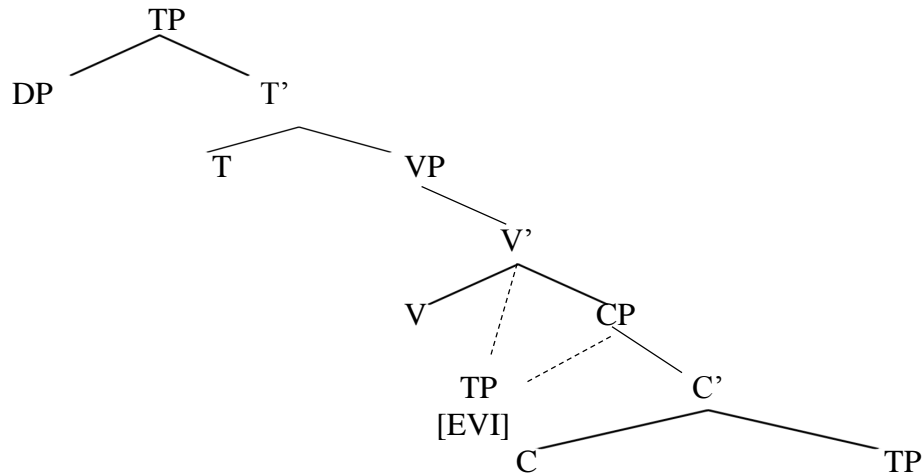


This position is also difficult to determine with precision due to the linearity of pronunciation. What is known is that it appears after the verb and before the complement. Therefore, I have shown both possible lines. According to the data, this position is *more* grammatical if the Complementizer in question is either "for" or "because"; that is to say, the data show it is possible preceding these Complementizers, but the data for Evidential PEs preceding a "that" Complementizer are less conclusive[19].

---

[19] See Section 3.2.2 Embedded Clauses for more details.

5. Before the Coordinator of a Coordinated VP

```
            TP[ROOT]
           /        \
         DP           T'
                    /    \
                   T        VP
                          /  | \  \
                        VP   TP COORD   VP
                            [EVI]
```

6. Before the Coordinator of a Coordinated TP

```
                TP
              /  | \  \
            TP   TP COORD   TP
                [EVI]
```
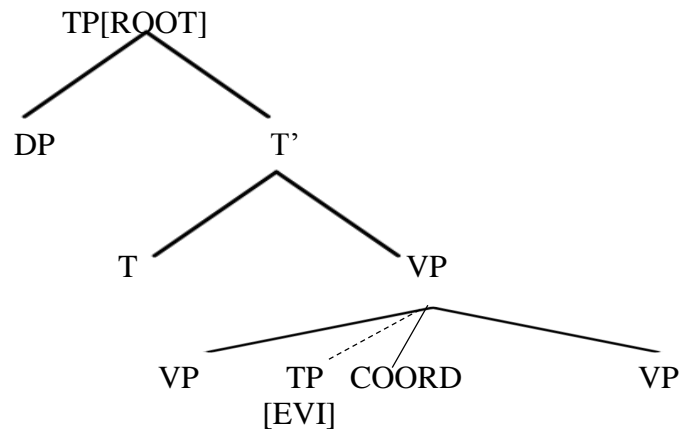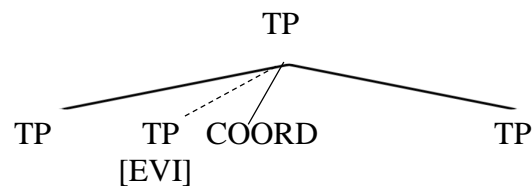
7. After the First [+focus] DP in an utterance with Contrastive Topicalization

The data given in Section 4.1 in which for Evidential PEs follow the first fronted [+focus] DP in an utterance with Contrastive Topicalization have proven this position to be grammatical.

```
                              CP
                   ┌───────────┼───────────┐
                  CP         COORD          CP
               ┌───┴───┐              ┌──────┴──────┐
              DP  XP    C'           DP             C'
                [MITIG]  \                           \
                         TP                          TP
                      ┌──┴──┐                     ┌───┴───┐
                     DP     T'                   DP       T'
                         ┌──┴──┐                      ┌───┴───┐
                         T     VP                     T       VP
                               │                              │
                               V'                             V'
                             ┌─┴─┐                          ┌─┴─┐
                             V   DP                         V   DP
```
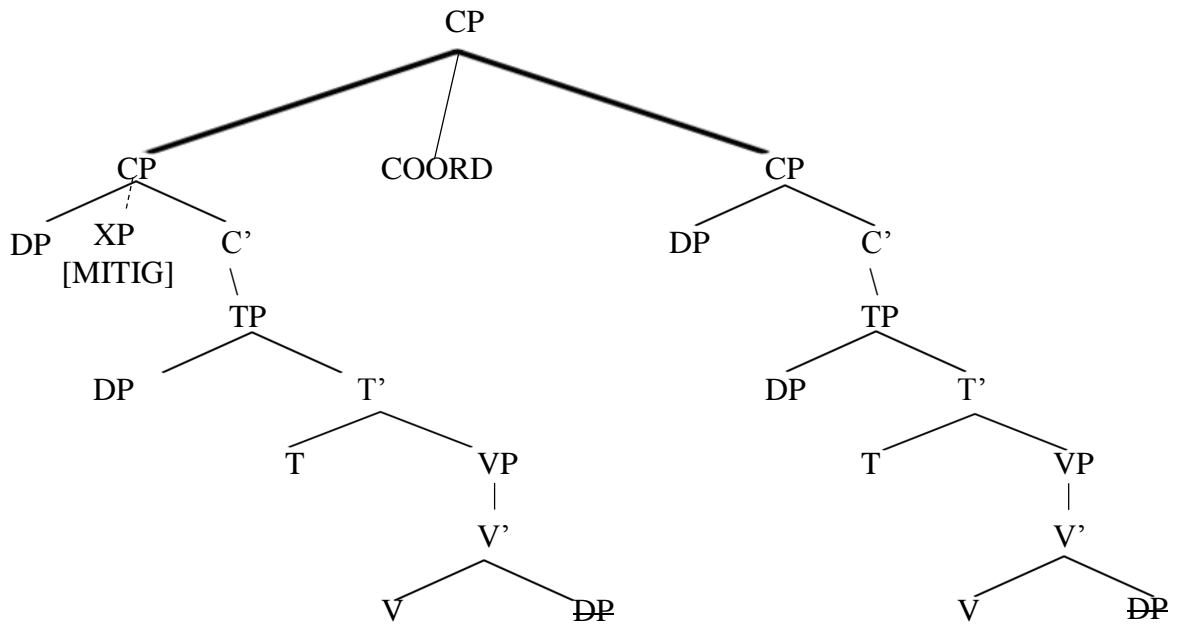
8.  After the Second [+focus] DP in Contrastive Topicalization

Similarly, following the second fronted [+focus] DP in an utterance with Contrastive Topicalization has also been shown to be grammatical. This is also discussed in Section 4.1.

```
                                    CP
                   _____/|_____
                  CP             COORD                    CP
               __/  \__                              __/  :  \__
              DP      C'                            DP   XP     C'
                       \                               [MITIG]   \
                       TP                                        TP
                     __/  \__                               ___/  \__
                    DP      T'                             DP      T'
                          _/  \__                              __/  \__
                         T      VP                            T      VP
                                 |                                    |
                                 V'                                   V'
                               _/  \__                             _/  \__
                              V      DP                           V      DP
```
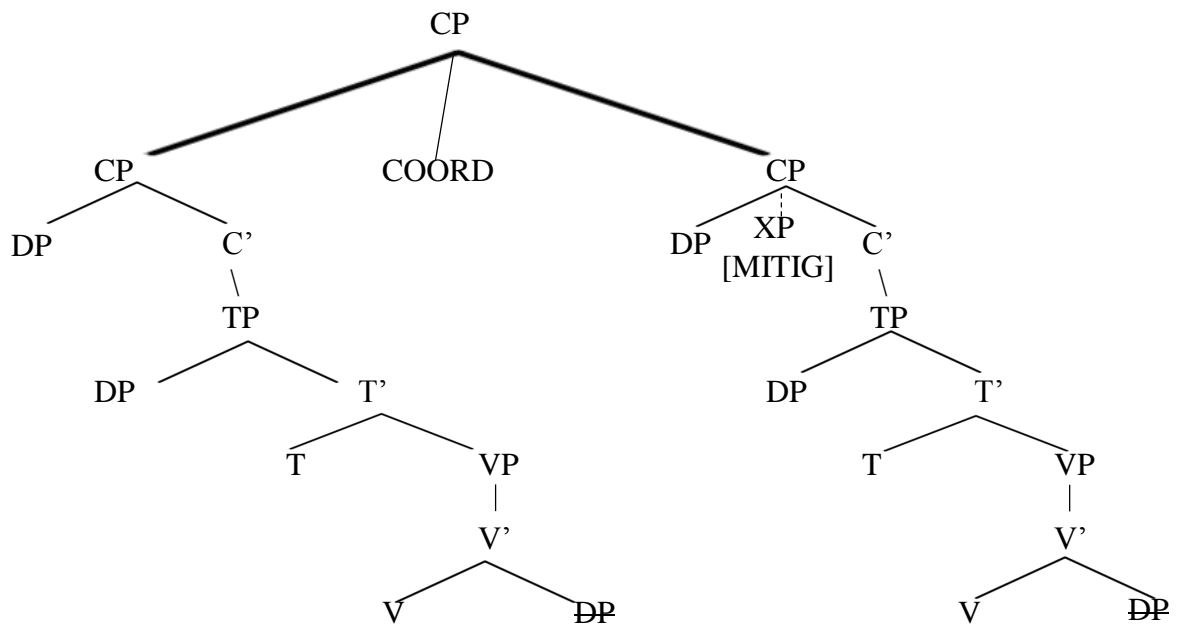
9. Between a VP and PP in the Rightmost VP of a Structure with a Coordinated VP

The data in Section 4.7.2 show that the position between a verb phrase and its prepositional phrase adjunct is a grammatical interpolation point for Evidential PEs.

```
                    TP
                  /    \
               DP       T'
                      /    \
                     T      VP
                          /    \
                        VP    COORD      VP
                                       /  ˙.  \
                                     VP    TP   PP
                                          [EVI]
```
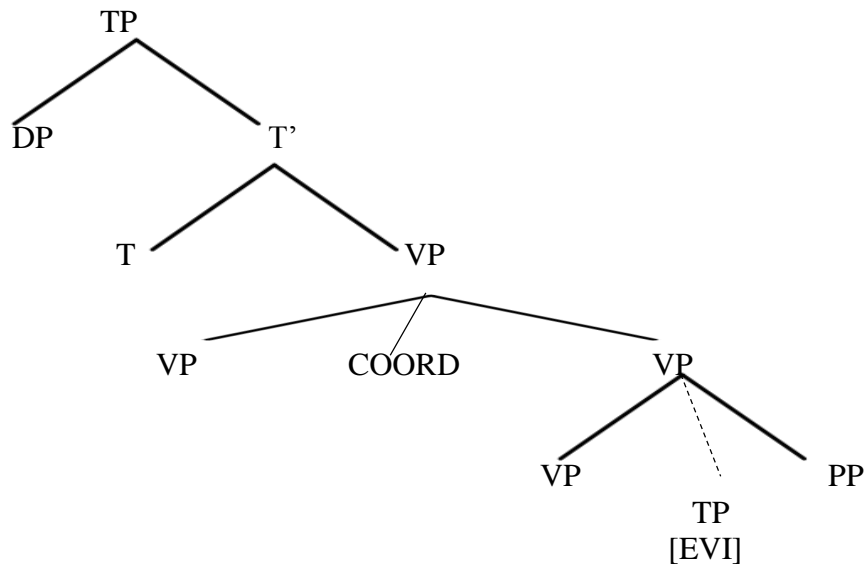
*5.2 Potentially Grammatical Interpolation Points*

1.  Before the Coordinator of an utterance with Contrastive

    Topicalization

```
                              CP
            _____/|_____
           /                  / |                    \
          CP              XP   COORD              CP
         /  \           [MITIG]                  /  \
       DP    C'                               DP    C'
              \                                       \
              TP                                      TP
             /  \                                    /  \
           DP    T'                                DP    T'
                /  \                                    /  \
               T    VP                                 T    VP
                    |                                        |
                    V'                                       V'
                   /  \                                     /  \
                  V    DP                                  V    DP
```
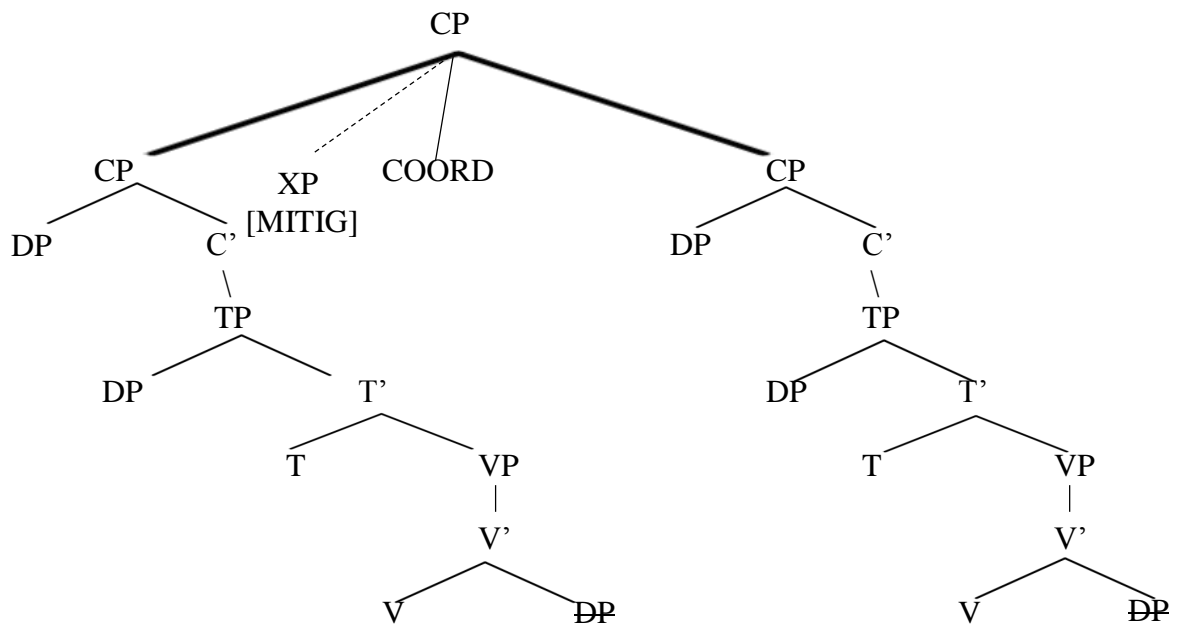
2. Between the Verb and an Adjective Complement in a
   Fronted CP Subject

While appearing between a verb and a different type of complement has met with
inconclusivity, this particular position has shown possibility according to the data,
specifically the highly grammatical S32.6 (That it was a bad idea is, you know, obvious
now). However, a similar utterance, S58.4 has proven ungrammatical (That George was
angry was, you see, clear). A discussion of these facts can be found in Section 4.3.
Further research is required to determine whether this potentially grammatical position is,
in fact, grammatical.
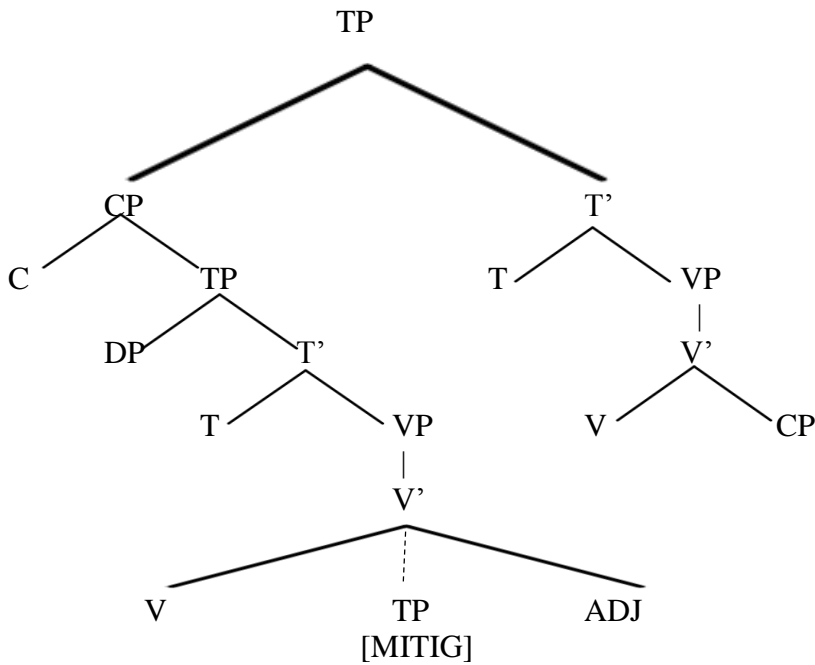
3. Before the First PP in a PP Chain

The data in Section 4.6 have yielded inconclusive, but possibly promising results. All tested utterances met with a score in the $6.0 - 6.9$ range, but many of them were on the high end of that range and thus on the borderline of grammaticality. Further investigation may be warranted to determine whether or not this position is grammatical.

```
                        TP
                      /    \
                    DP      T'
                          /    \
                        T       VP
                              /    \
                            VP      PP
                          /    \
                        VP      PP
                      /   ⋮ \
                    VP       PP
                    |
                    V'      TP
                  /   \   [MITIG]
                 V    (DP)
```
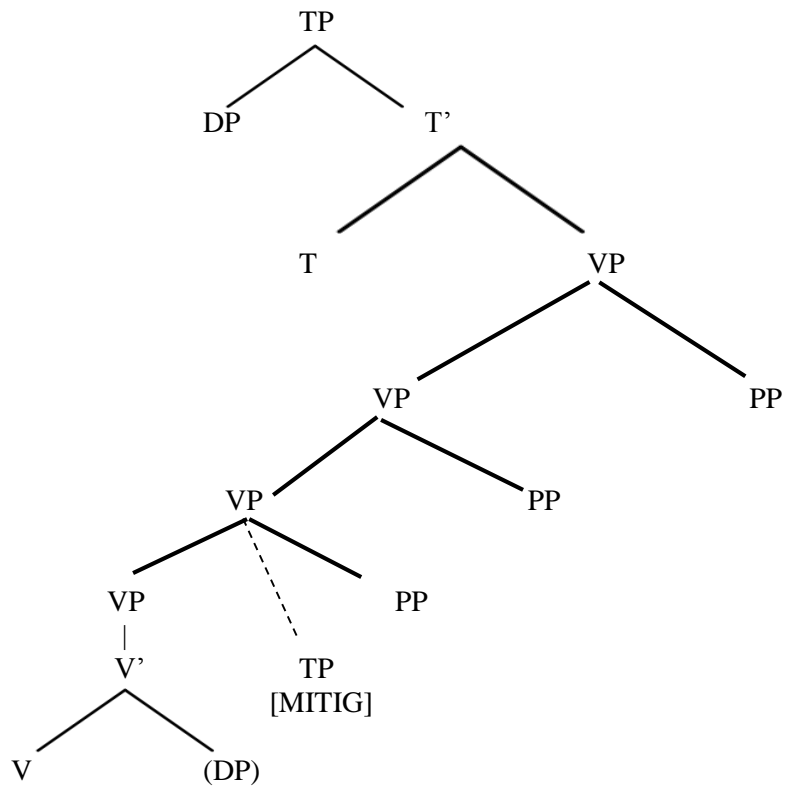
4. Before the Coordinator in a Coordinated DP Subject

The data for this position were unusually varied in grammaticality judgments, but said variation is seemingly unrelated to structural and prosodic considerations. The discussion can be found in Section 4.7.1.

```
                        TP
              ┌──────────┴──────────┐
             DP                     T'
       ┌──────┼──────┐          ┌────┴────┐
      DP   TP   COORD  DP      T         VP
          [EVI]
```
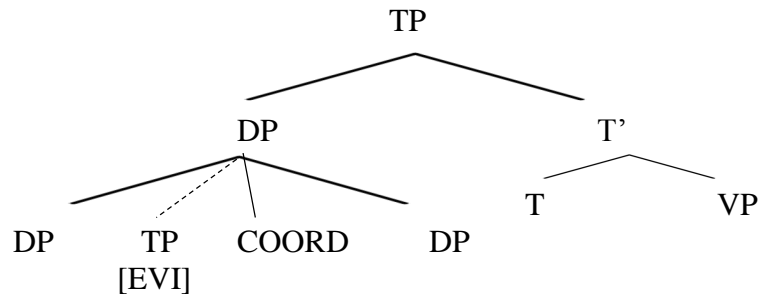
# 6. EXPLETIVES

## 1 Introduction

### *1.1 What are Expletives?*

Expletives, also known as profanity, swear words, cuss words, curse words, etc., come in a variety of forms and can serve many pragmatic functions. Most obvious of these uses is conveying the speaker's anger or frustration with either the proposition or the state of affairs leading to the proposition. However, Expletives' range of use is not so narrow. They are also used to express surprise or disappointment and build positive face by agreement or offering sympathy. They can also constitute a form of back channeling which reflects the speaker's degree of involvement with what someone else has said, as well as emphasize and intensify the strength of the speaker's emotional connection to the utterance or a particular part thereof (Jay and Janschewitz 2008) (Ljung 2009). Examples of these forms and functions follow:

*(1) Basic Expletive Forms and Functions - Emphasis*

    a.  *Simple Emphatic Modifier*

        i.  That's a damn shame.
       ii.  I can't believe that just fucking happened!
     iii.  I have had it with these motherfucking snakes on this motherfucking plane!

    b.  *"As" Phrase Intensifier*

        i.  I'm mad as hell!
       ii.  How do you want that cooked – burnt to a crisp or bloody as hell?
     iii.  In my country, we have a term for women like you – "hot as fuck".

    c.  *"The" Phrase Intensifier*

        i.  Where the fuck are you going?
       ii.  What the shit?!
     iii.  Shut the hell up!

    d.  *Vocatives*

        i.  Get off the road, asshole!
       ii.  I double dare you, motherfucker!
     iii.  Happy Birthday, dumbass.

While these examples are easy to categorize as serving simple emphasizing intensifying functions, other uses are less clearly marked in their purposes.

    (2) A: I think Bill's avoiding me. He didn't answer when I called.
         B: Don't overreact. Hell, he could have just been sleeping.

    (3) A: My girlfriend and I broke up.
         B: Shit, man. That sucks.

    (4) A: Gary got into a car accident.
         B: Shit.

    (5) Well, damn, that sounds time consuming.

As noted above, some of these uses can be rather to difficult define and may rely on intonation to distinguish them from other forms; e.g. if (4)'s Expletive were uttered quickly and loudly with a high pitch, it would convey anger, but in a calm tone of voice, it may express that the hearer has heard the bad news delivered by the speaker and is receiving that information with the appropriate emotional response and is conveying his/her sympathy, as in (3).

What remains consistent in the use of expletives, however, is the fact which they are used to convey the speaker's subjectivity. The expletives are used to orient the hearer to the speaker's attitude regarding the proposition of the utterance, giving it context and assisting the hearer in the proposition's interpretation. This, of course, perfectly satisfies definition of a parenthetical according to the likes of Blakemore (2006) and Dehe and Kavalova (2007:9).

### 1.2 Scope of Discussion

A full study into Expletive use would be able to probe the various forms (e.g. "as fuck", "the shit" constructions versus "fucking" and "damn" adjectives, etc.) as well as differences in pragmatic usage across all possible Expletives at all possible points in an utterance. This would result in a comprehensive summary of their use and grammaticality for all purposes and across all possible interpolation points, but unfortunately, the current research does not constitute that all-inclusive tome. Given the wide array of Expletives, the scope must be limited somehow. Towards this end, certain forms of expletive such as simple modifiers (e.g. "That is fucking stupid.", "That's a damn shame"), and the "as"

and "the" phrases (e.g. "That guy is drunk as fuck", "Go the fuck away!", etc.), which are used for emphasis will not be studied in this current work. Instead, the focus will be on simple Expletive interjections[1] such as the following:

(6) Fuck, you're old.

(7) Fucking hell, the house is burning!

(8) I forgot my keys, son of a bitch!

As with the other forms of PEs studied herein, Expletives are tested at several points of possible interpolation within various structures. These structures include simple TPs, embedded CP clauses, coordinated clauses, PP chains, Auxiliary chains, and several movement processes such as Contrastive Topicalization. Where the collected data reveal differences in prosody correlating with differences in grammaticality judgments, these differences will be discussed, but these instances and discussions are limited in number by the size and scope of this work. More thorough and compete work in this area will have to be left to other papers and possibly other scholars.

---

[1] While "the" phrases may also constitute interjections (e.g. "Where the fuck are you going?", "Go the fuck to sleep!", "Hurry the hell up!"), these have not been examined in the current work. However, they may merit future research to conclusively determine their grammatical interpolation points and compare those results to those yielded here.

## *2* **Expletive PE Internal Structure**

Unlike Vocatives, which exclusively take the form of DPs, and Evidential PEs which are TPs, Expletives are more flexible in their grammatical categories. They can present as DPs, VPs, or TPs (e.g. "God damn it!"). A few examples of these which have been tested in this work can be found below:

(9) *Expletives*

    a. Fuck
    b. Shit
    c. Damn
    d. Hell
    e. Fucking hell
    f. Fucking shit
    g. Son of a bitch
    h. Damn it
    i. Crap

## 3 **Distribution of Expletives within Larger Structures**

### *3.1 The Edges*

The left and right edges are nearly universally acceptable locations for Expletives, just as with the other PEs studied in the course of this work. A few examples of the plethora of data confirming this follow:

*(10)        Expletive Edge Data*

    *a.  Left Edge*

| | |
|---|---|
| S38.1 Fuck, I left my book at home. | Average: 9.2 |
| S38.7 Damn, my ex-boyfriend is here. | Average: 9.8 |
| S38.13 Shit, I lost my keys. | Average: 9.7 |
| S38.17 Damn it, my ex-boyfriend is here. | Average: 9.7 |
| S38.20 Fucking hell, my ex-boyfriend is here. | Average: 9.1 |
| S39.1 Son of a bitch, my ex-boyfriend is here. | Average: 9.6 |

    *b.  Right Edge*

| | |
|---|---|
| S38.6 I left my book at home, fuck. | Average: 9.2 |
| S38.12 My ex-boyfriend is here, damn. | Average: 9.4 |
| S38.19 My ex-boyfriend is here, damn it. | Average: 9.7 |
| S39.2 My ex-boyfriend is here, son of a bitch. | Average: 9.2 |
| S39.5 I can't find my phone, fucking shit. | Average: 7.3 |

*3.2 Elsewhere*

*3.2.1   After the First Subject*

Unlike other PEs, Expletives cannot generally appear after the first subject.

*(11)        After the Highest Subject*

| | |
|---|---|
| S38.2 I, fuck, left my book at home. | Average: 5.3 |
| S38.10 My ex-boyfriend, damn, is here. | Average: 3.5 |
| S38.14 I, shit, lost my keys. | Average: 4.6 |
| S39.16 That it was a bad idea, hell, is obvious now. | Average: 4.1 |
| S42.16 John, shit, got lost because Steve couldn't read the map and gave him bad directions. | Average: 3.5 |
| S43.3 Your cat, hell, got out because you left the window open, Karen. | Average: 3.8 |
| S44.10 That, damn, Karen, is an awful story. | Average: 6.3 |
| S42.7 John and Mary, fuck, got lost because Steve gave them bad directions. | Average: 2.9 |

The only possible exceptions to this rule are S44.10 and S38.2, which are merely inconclusive. S38.2 is not significantly different from S38.14, and can thus be dismissed. S44.10, has been determined by the T-Test to be significantly different from the similarly structured S38.14. However, given the fact that S44.10 also has an additional PE (the Vocative "Karen"), and the abundance of ungrammatical data, this position can be reasonably ruled out for Expletives despite one statistically significant inconclusive instance.

### 3.2.2   Embedded Clauses

Where embedded clauses appear, the most expected patterns hold – the left and right edges are acceptable. That, however is where the similarities between the behavior of Expletives and the behavior of the other PEs studied in this work end. Other forms of PEs have been shown to be grammatical in positions such as following the highest subject or preceding the Complementizer of an embedded clause, but Expletives seem to have no such ability. That is not to say there are not some intriguing exceptions which may warrant further study.

(12)      *Embedded Clause Positions*

a.  *Left Edge*

S43.1 Hell, your cat got out because you left the window open.          Average: 8.5
S44.2 Hell, you got fired because you called your boss a moron.         Average: 9.2
S45.2 Son of a bitch, I had no idea that the party was this weekend.   Average: 9.4
S42.12 Shit, John got lost because Steve couldn't read the map and     Average: 9.0
     gave him bad directions

*b. Right Edge*

S45.5 I had no idea that the party was this weekend, son of a bitch.     Average: 9.0
S45.16 I didn't realize that I couldn't take both classes, shit.              Average: 8.6
S45.10 John and Mary got lost because Steve gave them bad            Average: 8.3
    directions, fuck.
S43.5 Your cat got out because you left the window open, hell.           Average: 5.5

The unusual and statistically significant deviance from the expected grammaticality of S43.5 is curious given the fact that its structure is not terribly distinct from that of S45.5 or S45.16. Certainly, S45.5 uses a more complex Expletive and S45.16 involves a negator (i.e. "didn't"). The Complementizer in S43.5 is, admittedly, different from those of S45.5 and S45.16, but that fact does not seem likely to be the at-issue variable. A look at the prosody of these utterances show that the confounding factor may be tone, as it has also been observed with Vocatives[2].

(i)      S43.5 Your cat got out because you left the window open, hell. Average 5.5



---
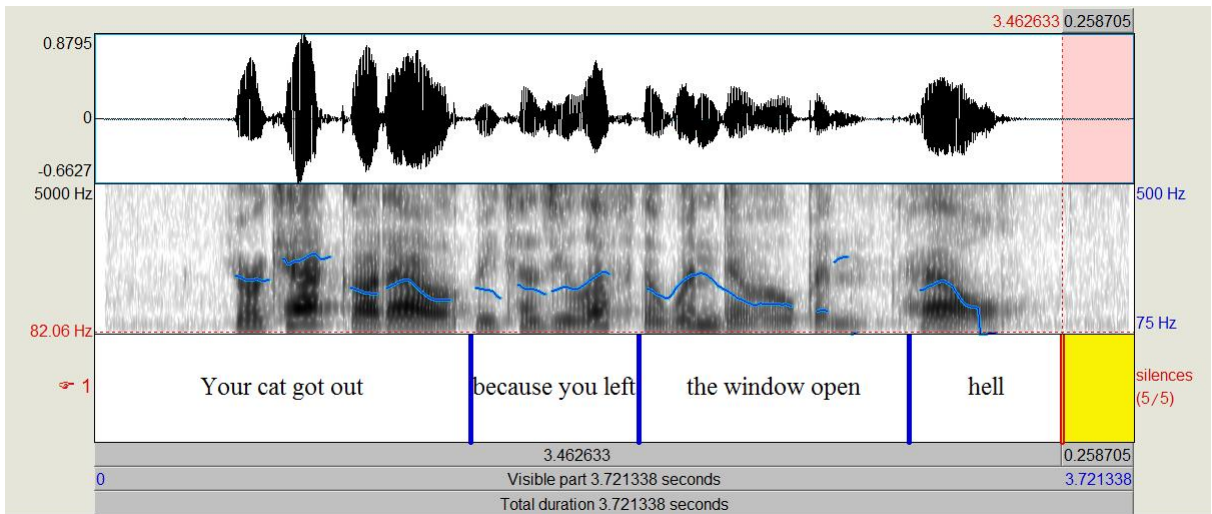
[2] See Chapter 3: Vocatives.

(ii)    S45.5 I had no idea that the party was this weekend,    Average: 9.0
son of a bitch.
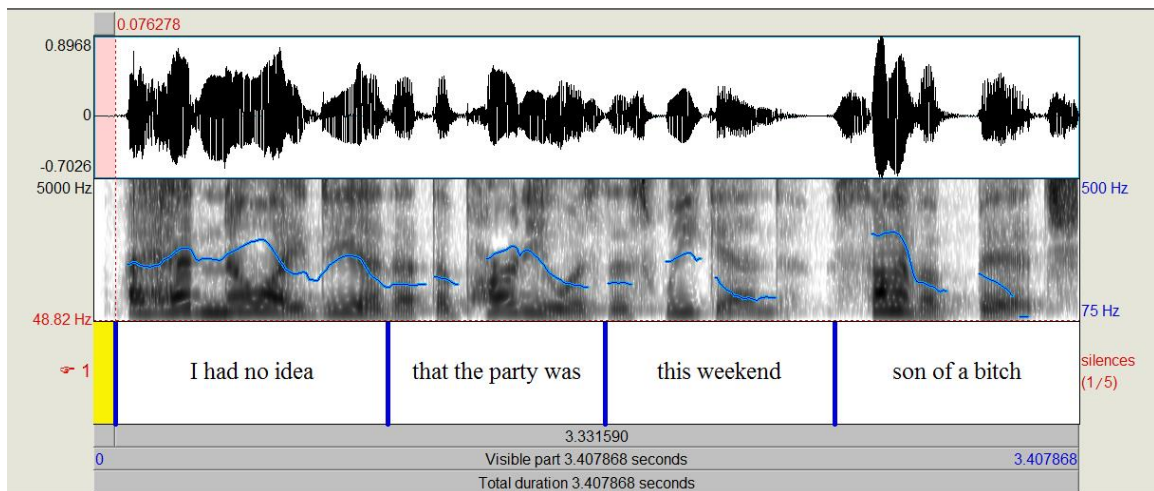


(iii)    S45.16 I didn't realize that I couldn't take both classes, shit.    Average: 8.6
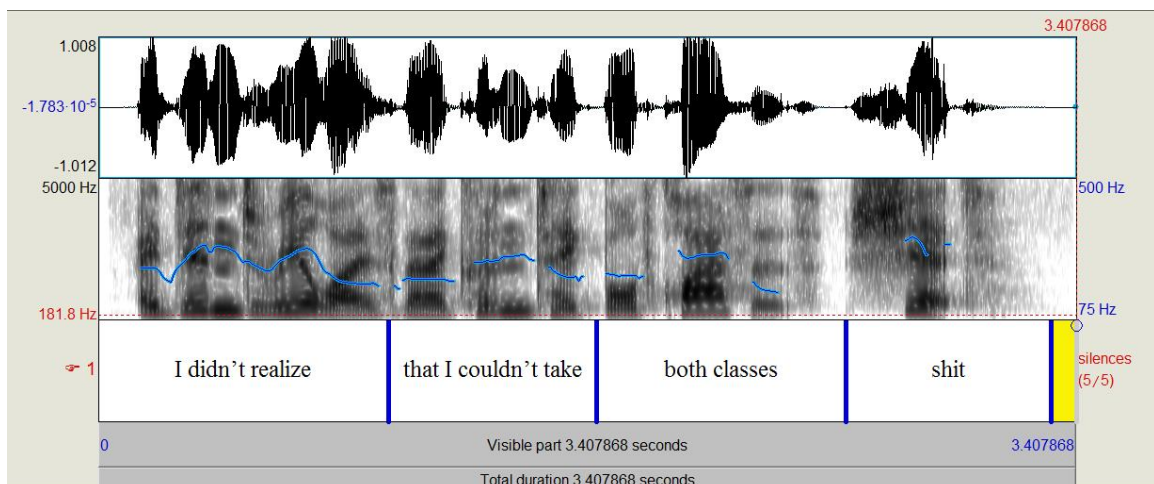


While S45.5 and S45.16 both utilize the Expletive with a higher pitch at the onset, emphasizing it and conveying the frustration or irritation, S43.5 seems to be utilizing the Expletive a different way. The differences in tone and their effects on the interpretation of the Expletive, and thus the potential for grammaticality in a certain position, do seem to be noticeable. However, it may be of interest to note the variation in grammaticality judgments for S43.5 correlate with age groups. That is to say that older subjects found

this construction to be more grammatical than younger groups – in fact, the 50 years and older group rated it as rather grammatical:

(iv)   S43.5 Your cat got out because you left the window open, hell. Average: 5.5

|  | Average | Standard Deviation |
|---|---|---|
| Across all Age Groups | 5.5 | 3.2 |
| 18 to 29 | 4.4 | 3.1 |
| 30 to 39 | 4.7 | 3.3 |
| 40 to 49 | 6.0 | 1.0 |
| 50 and older | 7.9 | 2.5 |

The differences in judgments correlating with the age of the subjects may indicate language change. Whether the underlying factor is prosodic or related to the use of the particular PE (i.e. "hell" versus "son of a bitch" or "fuck") remains a mystery. While these facts brought to light by the data are interesting and may merit more specific and dedicated research, they are not the focus of this work. As stated in Chapter 1: Introduction, this work focuses on what is considered grammatical across all dialects and age groups within American English. Ergo, these mysteries are left for future research.

### c. After first Subject

S60.14 Karen, shit, can't come because she is working late tonight.    Average: 4.2
S60.15 George, fuck, said he lost his keys.    Average: 3.6
S60.16 Susan, son of a bitch, said that Fred can't find your dog.    Average: 3.5

*d. Following the Embedded Subject(s)*

S60.17 Karen can't come because she, shit, is working late tonight.    Average: 5.0
S60.18 George said he, fuck, lost his keys.    Average: 4.3
S60.19 Susan said that Fred, son of a bitch, can't find your dog.    Average: 4.6

*e. Other*

S40.19 I forgot to do, fuck, the assignment on my computer last night.  Average: 3.5
S40.20 I forgot to, fuck, do the assignment on my computer last night.  Average: 4.1
S45.15 I didn't realize that I couldn't, shit, take both classes.    Average: 2.6

*f. Before C*

*i. Overt C*

*1. 'For' C*

S61.4 George hoped, fucking hell, for Katie to stop by.    Average: 3.1
S61.5 Fred asked, damn it, for George to pick him up.    Average: 3.3

*2. 'That' C*

S45.7 I forgot, damn it, that we have that paper due on Monday.    Average: 5.5
S45.3 I had no idea, son of a bitch, that the party was this weekend.    Average: 4.4
S60.20 Susan said, shit, that Fred can't find your dog.    Average: 4.9

*3. 'Because' C*

S42.7 John and Mary got lost, fuck, because Steve gave them bad    Average: 2.9
    directions.
S65.10 Katie is in the park, hell, because she found a stray dog.    Average: 4.1
S43.4 Your cat got out, hell, because you left the window open.    Average: 4.3
S61.2 Karen can't come, shit, because she is working late tonight.    Average: 4.7

g.  *After C*

i.  *Overt C*

1.  *'For' C*

| | |
|---|---|
| S61.7 Susan wanted for, shit, Karen to bring ice. | Average: 2.8 |
| S61.8 George hoped for, fucking hell, Katie to stop by. | Average: 2.6 |
| S61.9 Fred asked for, damn it, George to pick him up. | Average: 3.9 |

2.  *'That' C*

| | |
|---|---|
| S45.3 I had no idea, son of a bitch, that the party was this weekend. | Average: 4.4 |
| S45.8  I forgot that, damn it, we have that paper due on Monday. | Average: 4.0 |
| S45.14 I didn't realize that, shit, I couldn't take both classes. | Average: 3.6 |

3.  *'Because' C*

| | |
|---|---|
| S42.9 John and Mary got lost because, fuck, Steve gave them bad directions. | Average: 4.8 |
| S42.12 John got lost because, shit, Steve couldn't read the map and gave him bad directions. | Average: 5.4 |

To summarize, despite the patterns of other PEs, Expletives stand apart in their ungrammaticality in otherwise commonly acceptable positions such as following the first subject and preceding a Complementizer. Because no Expletive is grammatical in any of these positions, there is no reason to suspect that they would be grammatical in the same structures with an omitted Complementizer. Given the already fairly hefty set of data and the necessity of the eventual completion of this work, such utterances have not been tested here.

# 4    Interactions with Complex Structures and Movement Processes

*4.1 Contrastive Topicalization*

When Contrastive Topicalization occurs, other PEs still allow some positions to be acceptable. Once again, Expletives break the mold, sometimes disallowing even the edges.

(13)    *Contrastive Topicalization*

a. *Left Edge*

S39.17 Hell, dogs I love but cats I can't stand.              Average: 5.1
S39.19 Fuck, John I like, but Susan I hate.                   Average: 6.9
S61.10 Shit, green I like, but pink I hate.                   Average: 7.8

While the difference between S39.19 and S61.10 is statistically insignificant, the difference in grammaticality between S39.17 and S39.19 is less surmountable. It is possible that the comparatively lower score of S39.17 is due to the particular Expletive used or due to prosodic considerations. However, a look at the suprasegmental level shows that, while S39.17's expletive may begin at a higher pitch than the others, the overall patterns of intonation remain similar:

(i)     S39.17 Hell, dogs I love but cats I can't stand.        Average: 5.1
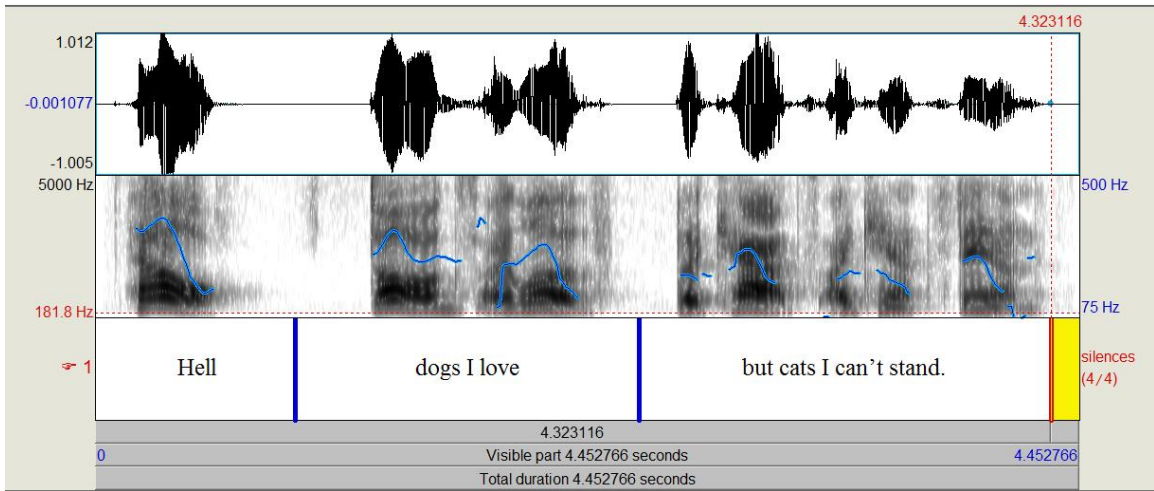


(ii)    S39.19 Fuck, John I like, but Susan I hate.        Average: 6.9
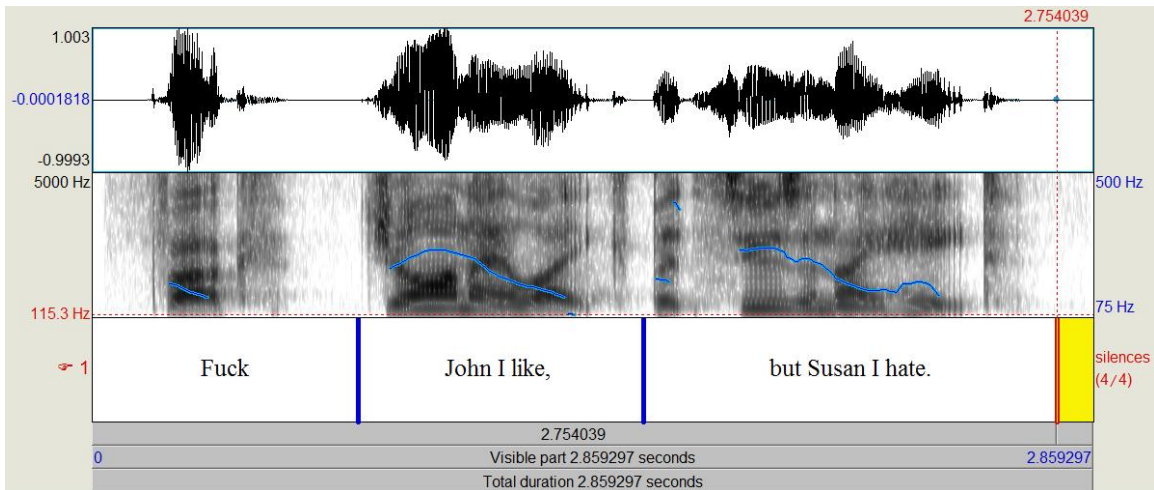
(iii)    S61.10 Shit, green I like, but pink I hate.            Average: 7.8
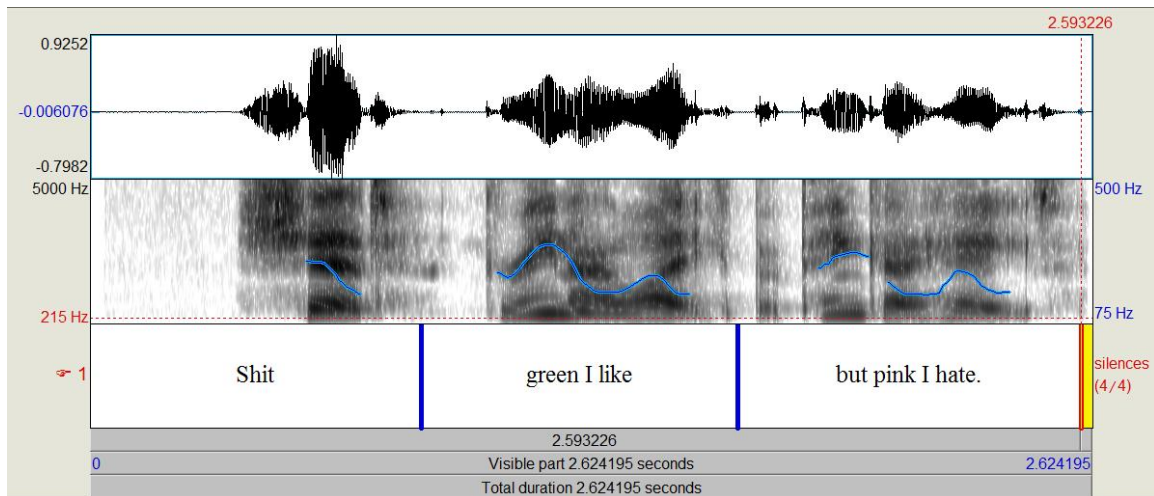


It is possible that this difference in pitch is responsible, but there is another factor which may be in play. We have seen that other PEs, such as DP with PP Vocatives, favor certain positions over others[3]. Further investigation into S39.17's subject judgments reveals an emerging pattern. As with S43.5[4], which featured "hell" at the right edge of an utterance with an embedded clause, the age of the subjects seems to correlate with the grammaticality judgments:

---

[3] See Chapter 3: Vocatives.

[4] S43.5 Your cat got out because you left the window open, hell.       Average: 5.5

*(iv)*     S39.17 Hell, dogs I love but cats I can't stand.                    Average: 5.1

|  | Average | Standard Deviation |
|---|---|---|
| Across all Age Groups | 5.1 | 2.9 |
| 18 to 29 | 4.5 | 2.6 |
| 30 to 39 | 4.6 | 3.3 |
| 40 to 49 | 4.8 | 1.8 |
| 50 and older | 7.8 | 1.5 |

The differences between the judgments for the 50 years old and older age group and the others are statistically significant. Given these facts, this position is judged to be grammatical, if subject to further rules about which PE to use for some generations of speakers.

### b.  *Right Edge*

S39.18 Dogs I love but cats I can't stand, hell.                    Average: 3.4
S39.20 John I like, but Susan I hate, fuck.                        Average: 6.7
S61.11 Green, I like, but pink I hate, shit.                       Average: 6.5

Similar to the left edge, the right edge shows some variation in grammaticality where an utterance with Contrastive Topicalization includes the Expletive "hell". This, too, may at first seem likely to be the result of intonational confounds, but this does not appear to be the case:

(i)     S39.18 Dogs I love but cats I can't stand, hell.     Average: 3.4
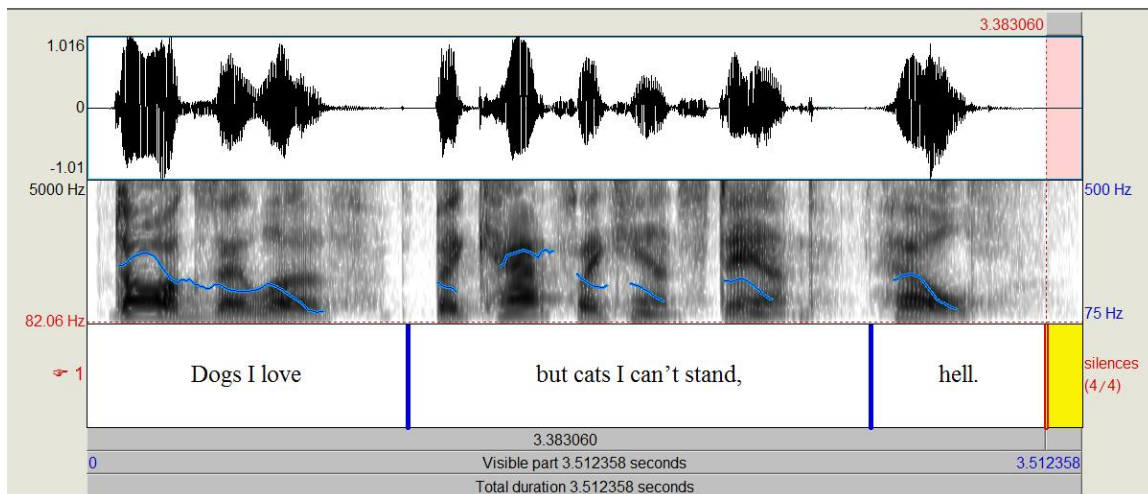


(ii)     S39.20 John I like, but Susan I hate, fuck.     Average: 6.7
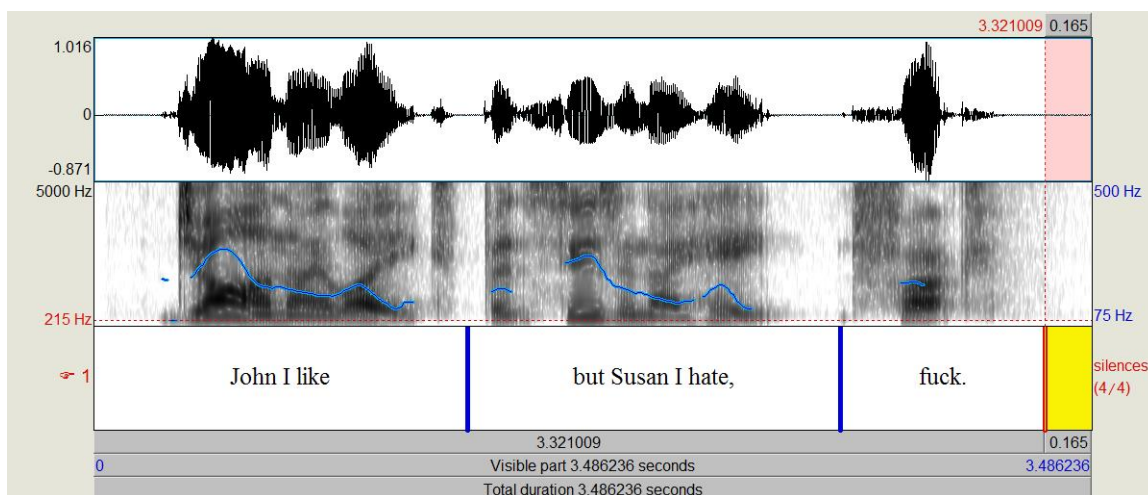
(iii)     S61.11 Green, I like, but pink I hate, shit.          Average: 6.5
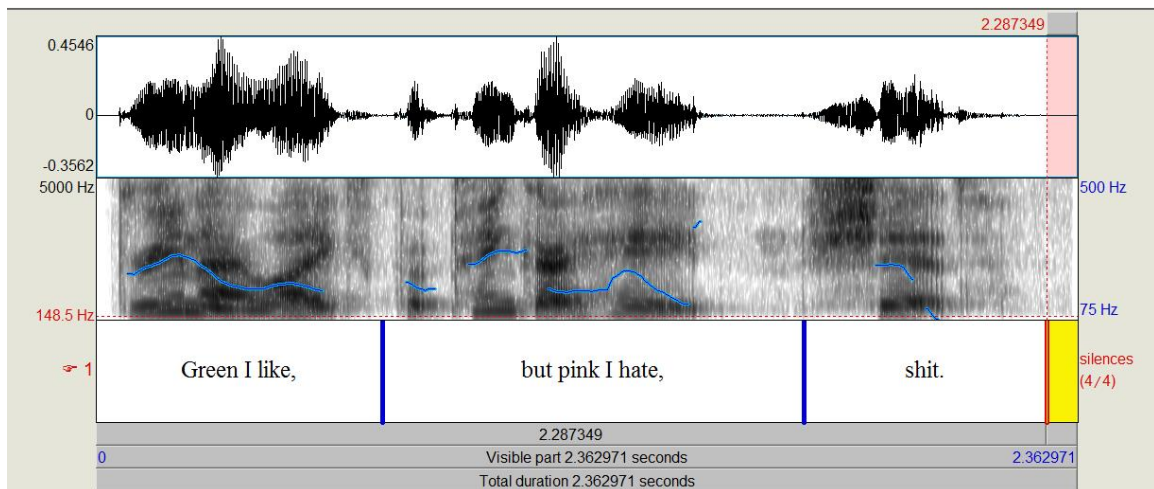


The reason for the statistically significant drop in grammaticality judgments for S39.18 remains a mystery, despite a vague comment:

(iv)     S39.18 Dogs I love but cats I can't stand, hell.          Average: 3.4

Comments:

    a.  "Hell" doesn't seem appropriate there especially the way it was said.
    b.  None

This drop in grammaticality may reflect a peculiarity of the particular PE, which has been implied by the previous analyses of utterances using "hell" which have been found to be grammatical to older speakers, but not to younger ones. Unfortunately, that building pattern stops here. S39.18 has been rated poorly by speakers of all ages:

(v)    S39.18 Dogs I love but cats I can't stand, hell.        Average: 3.4

| Age Range | Average | Standard Deviation |
| --- | --- | --- |
| 18 – 29 | 4.4 | 2.8 |
| 30 – 39 | 2.4 | 1.4 |
| 40 – 49 | 3.3 | 2.0 |
| 50+ | 4.2 | 2.1 |

This lapse in what seemed to be a pattern leaves the issue mysterious and a potential subject of future study. However, the other two utterances, S39.20 and S61.11 are still at the high end of the inconclusive range. To further probe the inconclusivity, the average ratings of scores for the utterances were also investigated relative to the age groups of the subjects. However, these data did not yield any statistically significant differences correlating with age groups.

(vi)    S39.20 John I like, but Susan I hate, fuck.        Average: 6.7

| Age Range | Average | Standard Deviation |
| --- | --- | --- |
| 18 – 29 | 6.1 | 2.1 |
| 30 – 39 | 6.5 | 3.5 |
| 40 – 49 | 7.7 | 2.1 |
| 50+ | 7.3 | 1.8 |

(vii)    S61.11 Green, I like, but pink I hate, shit.                              Average: 6.5

| Age Range | Average | Standard Deviation |
|-----------|---------|--------------------|
| 18 – 29   | 6.4     | 1.1                |
| 30 – 39   | 7.3     | 2.4                |
| 40 – 49   | 5.9     | 2.8                |
| 50+       | 6.4     | 2.8                |

However, S61.11's judgments did show a statistically significant difference, oddly

enough, correlating with gender.

(viii)    S61.11 Green, I like, but pink I hate, shit.                             Average: 6.5

| Self-identified[5] Gender | Average | Standard Deviation |
|---------------------------|---------|--------------------|
| Female                    | 5.9     | 2.8                |
| Male                      | 7.8     | 1.8                |

These correlations, while interesting, are not within the focus of this work and therefore,

further inquiry into the subject must be relegated to future research.

c.   *After First Subject*

S66.14 John, fuck, I like, but Susan I can't stand.                           Average: 4.0
S66.15 Green, shit, I like, but pink I hate.                                  Average: 3.8

---

[5] The surveys utilized to gather these data allowed three options for gender: "male", "female", and "I prefer not to say". Data connected to subjects who elected not to discuss their gender have been used in the aggregate, but put aside for the purposes of gender correlations.

### d. After Second Subject

S67.16 Football, I don't like, but hockey, shit, I love.  Average: 7.0
S67.17 Video games, I enjoy, but movies, fuck, I love.  Average: 6.3[6]

### e. Before Coordinator

S66.16 John I like, fuck, but Susan I can't stand.  Average: 4.2
S66.17 Green I like, shit, but pink I hate.  Average: 4.0

### f. After Coordinator

S66.18 John I like but, fuck, Susan I can't stand.  Average: 6.8
S66.19 Green I like but, shit, pink I hate.  Average: 6.7

The data for this position are also found at the border between inconclusive and grammatical. Curiously enough, there seems to be a statistically significant discrepancy in subject judgments for these two utterances which fall along gender lines.

(i)  S66.18 John I like but, fuck, Susan I can't stand.  Average: 6.8

| Self-identified Gender | Average | Standard Deviation |
|---|---|---|
| Female | 5.4 | 1.2 |
| Male | 7.3 | 2.3 |

(ii)  S66.19 Green I like but, shit, pink I hate.  Average: 6.7

| Self-identified Gender | Average | Standard Deviation |
|---|---|---|
| Female | 4.9 | 1.8 |
| Male | 7.3 | 2.4 |

---

[6] The difference between S66.18 and S66.17 has been determined to be statistically insignificant by the T-Test. However, given the borderline nature of the scores, I am classifying this as "potentially grammatical", pending future investigation.

Given that the scope of this project does not allow for in-depth study of demographical features, this correlation remains a subject for future study. As for determining the grammaticality of this position for the purposes of this work – defining positions which are grammatical across demographical lines of all kinds in the US – I must declare this position merely "potentially grammatical". I do this because, while the inconclusive scores are on the high end of their zone, given the patterns presented by the data related to gender, the scores are at the high end of inconclusive due to the ratio of males to females for this survey – 22 to 8. Given these facts, I am inclined to believe that across all dialects, ages, and genders, this position is not conclusively grammatical and judge it as such.

### 4.2  Dummy Subjects

Dummy Subjects do not affect the grammaticality of Expletives at the edges as Contrastive Topicalization does, but the other positions remain strictly ungrammatical.

(14)      *Dummy Subject Data*

   a.  *Left Edge:*

S39.6 Fuck, it's raining.                                                                  Average: 9.5
S39.11 Shit, it looks like rain.                                                      Average: 9.4

   b.  *Right Edge:*

S39.7 It's raining, fuck.                                                                Average: 8.8
S39.12 It looks like rain, shit.                                                     Average: 9.2

    *c.   After the Dummy:*

| | |
|---|---|
| S61.12 It, fuck, is snowing. | Average: 3.6 |
| S61.13 It, shit, looks like rain. | Average: 4.5 |

    *d.   Between the Verb and its Complement:*

| | |
|---|---|
| S39.8 It's, fuck, raining. | Average: 3.4 |
| S39.9 It's, fucking shit, raining. | Average: 2.9 |

### *4.3  CP Subject Formation*

Unlike other PEs, the data show that Expletives are disallowed at all positions except the left edge where CP Subject Formation is involved.

(15)      *CP Subject Formation*

    *a.   Left Edge:*

| | |
|---|---|
| S39.13 Hell, that it was a bad idea is obvious now. | Average: 8.1 |
| S61.14 Fuck, that George was angry was obvious. | Average: 7.2 |

    *b.   Right Edge:*

| | |
|---|---|
| S39.14 That it was a bad idea is obvious now, hell. | Average: 5.2 |
| S61.15 That George was angry was obvious, fuck. | Average: 4.4 |

    *c.   After Fronted CP*

| | |
|---|---|
| S39.16 That it was a bad idea, hell, is obvious now. | Average: 4.1 |
| S61.15 That George was angry, fuck, was obvious. | Average: 4.6 |

    *d.   Between Verb and Object*

| | |
|---|---|
| S61.18 That George was, fuck, angry was obvious. | Average: 2.7 |
| S61.19 That Fred was, shit, lying was clear. | Average: 2.8 |
| S61.17 That George was angry, was, fuck obvious. | Average: 4.6 |
| S61.20 That Fred was lying was, shit, clear. | Average: 3.5 |

*4.4 WH Words*

Expletives, ever the oddball of the PE categories, are only deemed acceptable at the left edge when a [+Q] WH word is present, and both edges when a [+R] WH word is involved.

*(16)* *[+WH]*

    1.  [+Q]

        a.  *Left Edge*

| | |
|---|---|
| S44.11 Damn, do you know where the spare paper is? | Average: 8.2 |
| S65.12 Shit, does Katie know who owns the dog? | Average: 8.6 |

        b.  *Right Edge*

| | |
|---|---|
| S44.13 Do you know where the spare paper is, damn? | Average: 5.1 |
| S62.3 Does Susan know which piano is broken, shit? | Average: 6.7 |

        c.  *After Subject*

| | |
|---|---|
| S44.14 Do you, damn, know where the spare paper is? | Average: 3.0 |
| S62.4 Does Susan, shit, know which piano is broken? | Average: 4.2 |

        d.  *After WH*

| | |
|---|---|
| S44.12 Do you know where, damn, the spare paper is? | Average: 3.3 |
| S65.13 Does Katie know who, shit, owns the dog? | Average: 4.0 |

    2.  *[+R]*

        a.  *Left Edge*

| | |
|---|---|
| S44.15 Crap, I don't know which car is hers. | Average: 9.4 |
| S65.11 Fuck, Katie doesn't know who owns the dog. | Average: 8.0 |

*b.  Right Edge*

S44.16 I don't know which car is hers, crap.                Average: 9.0
S62.1 Kate doesn't know where the party is, shit.          Average: 8.8
S62.2 Susan isn't sure which piano is broken, fuck.        Average: 8.2

*c.  After Subject*

S62.5 Katie, shit, doesn't know where the party is.        Average: 5.5
S62.6 Susan, fuck, isn't sure which piano is broken.       Average: 4.9

*d.  After WH*

S44.19 I don't know which, crap, car is hers.              Average: 2.7
S44.20 I don't know which car, crap, is hers.              Average: 3.1

*e.  Other*

S44.17 I don't, crap, know which car is hers.              Average: 3.1
S44.18 I don't know, crap, which car is hers.              Average: 3.5

*4.5 Auxiliary Verb Chains*

When the complex structure of an auxiliary chain is involved, Expletives can be found in a single token location – the left edge. The right edge is subject to variation, but all other positions are disallowed.

*(17)     Auxiliary Chains*

*a.  Left Edge*

S62.7 Shit, he could have been a famous actor.             Average: 9.3
S62.8 Hell, John may have been taking dance lessons.       Average: 8.7

*b.  Right Edge*

S62.9 He could have been a famous actor, shit.                    Average: 8.2
S67.18 Karen might have bought the book, fuck.                   Average: 7.1
S62.10 John may have been taking dance lessons, hell.           Average: 6.3
S62.11 John may have been taking dance lessons, fuck.           Average: 6.3
S69.19 Karen might have been considering a move to Alaska, shit.   Average: 6.5

While the differences between the grammatical S67.18 and the inconclusive S62.10, S62.11, and S69.19 are statistically insignificant; the difference between S62.9 and its similar utterances, S62.10 and S62.11 has been determined to be statistically significant. Analysis of the audio files in question show that the audio files do not have significantly different intonation.

(i)        S62.9 He could have been a famous actor, shit.                    Average: 8.2
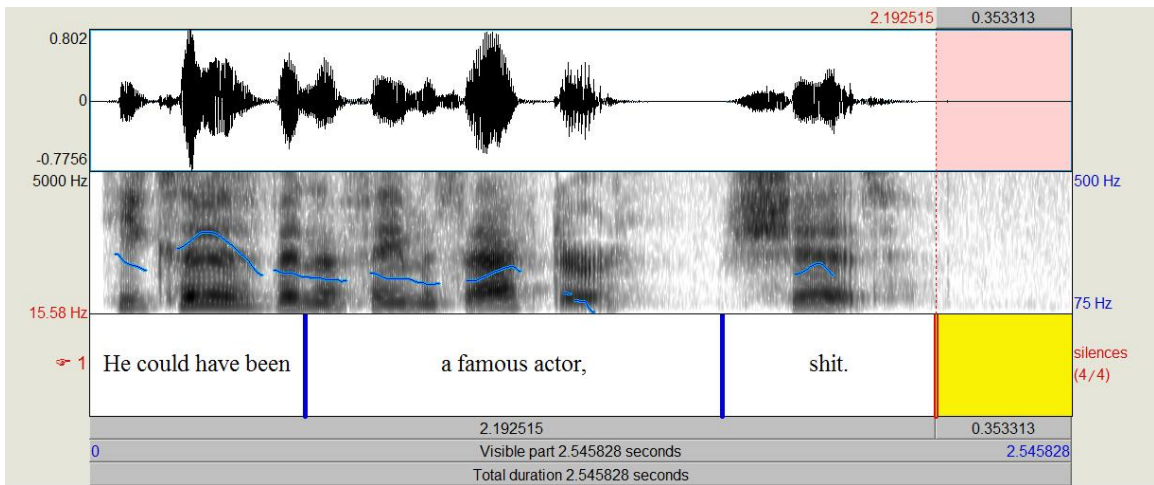
(ii)     S67.18 Karen might have bought the book, fuck.     Average: 7.1
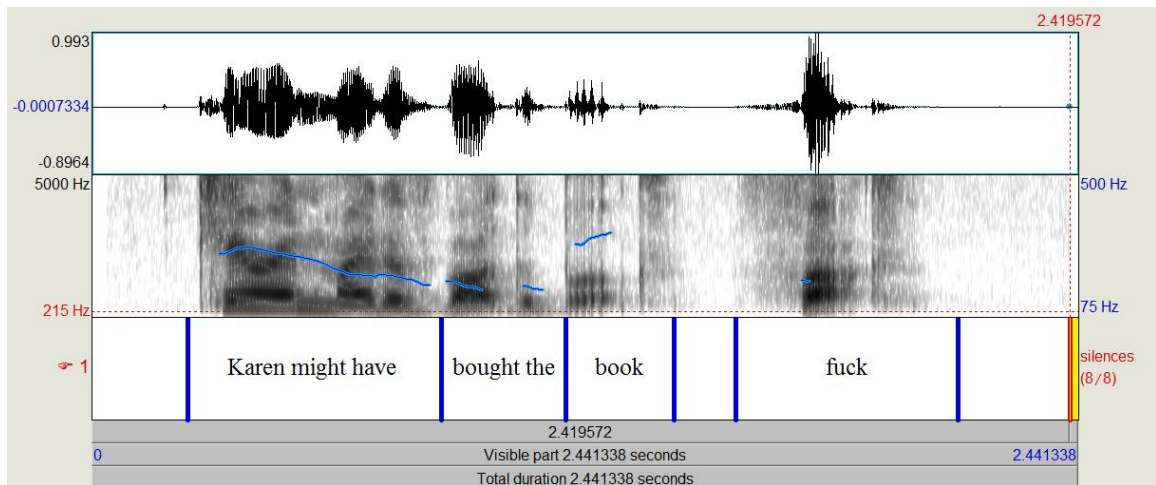


(iii)    S62.10 John may have been taking dance lessons, hell.     Average: 6.3
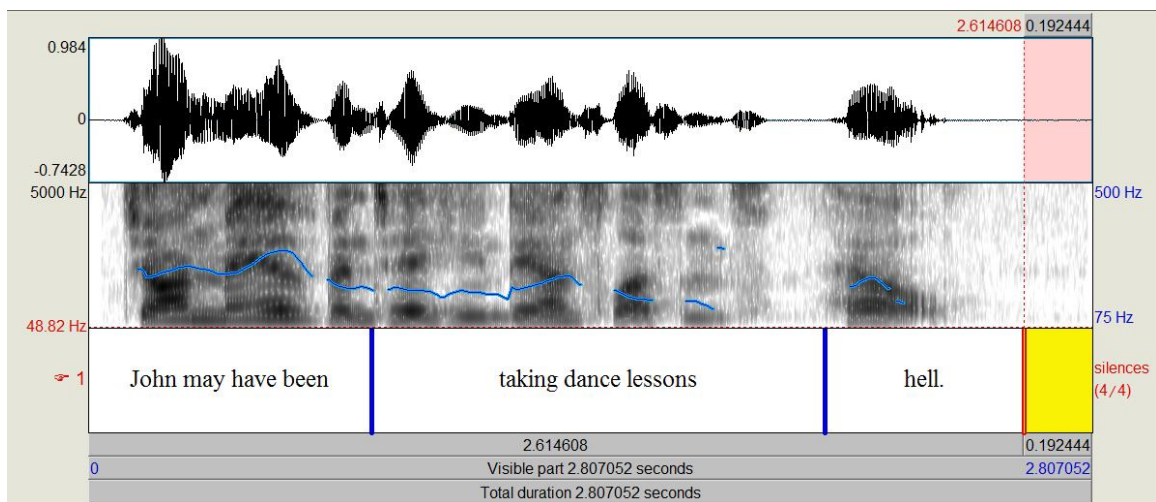
(iv)     S62.11 John may have been taking dance lessons, fuck.          Average: 6.3
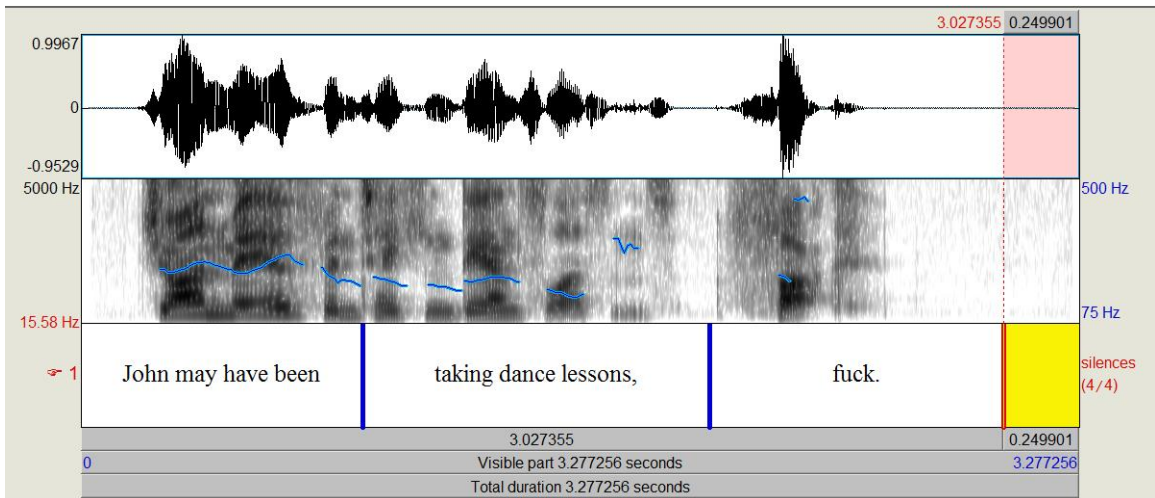


(v)     S69.19 Karen might have been considering a move to.          Average: 6.5
        Alaska, shit
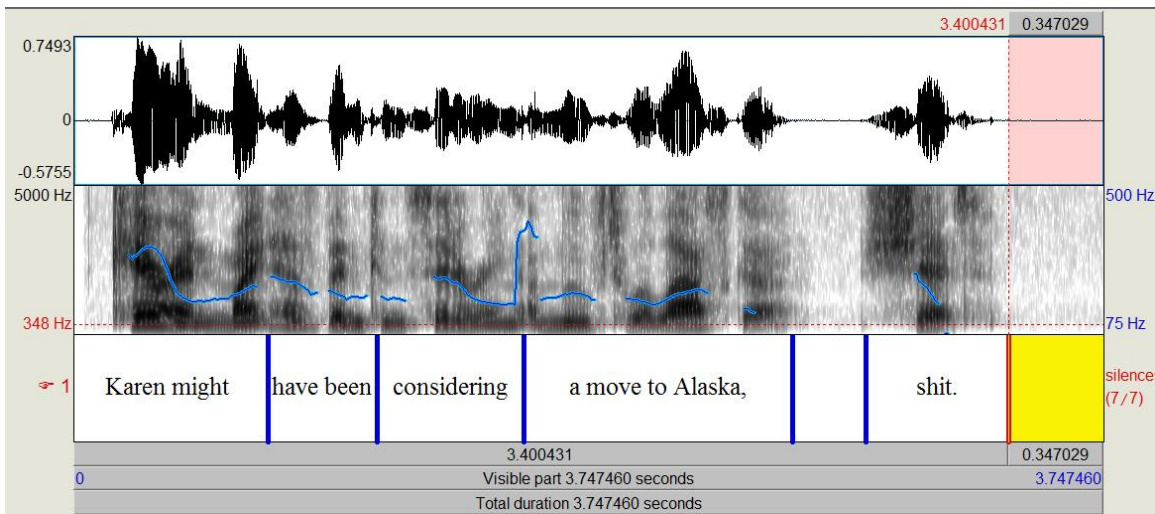


Given this, it is more likely that the variable which results in this difference in grammaticality is that S62.10, S62.11, and S69.19 all have an additional auxiliary – 3 auxiliary verbs to S62.9 and S67.18's 2. While this is an interesting data point, further investigation of this phenomena will have to wait for future research. At present, this

observation of (sometimes) statistically significant variability of grammaticality is attributed to the number of auxiliaries present in the auxiliary chain.

    c. *After First Subject*

| | |
|---|---|
| S62.12 He, shit, could have been a famous actor. | Average: 4.6 |
| S62.13 John, hell, may have been taking dance lessons. | Average: 5.0 |

    d. *Between the First and Second Auxiliary Verbs*

| | |
|---|---|
| S62.14 He could, shit, have been a famous actor. | Average: 3.7 |
| S62.15 John may, hell, have been taking dance lessons. | Average: 3.4 |

    e. *Between the Second and Third Auxiliary Verbs*

| | |
|---|---|
| S62.16 He could have, shit, been a famous actor. | Average: 4.6 |
| S62.17 John may have, hell, been taking dance lessons. | Average: 4.0 |

    f. *Between the Verb and its Complement*

| | |
|---|---|
| S62.18 He could have been, shit, a famous actor. | Average: 4.2 |
| S62.19 John may have been, hell, taking dance lessons. | Average: 4.1 |

*4.6 PP Chains*

The data show Expletives to be restricted to the edges when a PP chain is also present in the utterance.

(18)    *PP Chains*

    a. *Left Edge*

| | |
|---|---|
| S40.13 Fuck, I forgot to do the assignment last night. | Average: 9.7 |
| S63.1 Shit, Fred is going to Australia by ship on vacation this summer. | Average: 7.8 |
| S63.2 Fuck, Katie was waiting at the bus stop for three hours in the rain. | Average: 8.7 |

### b.  Right Edge

| | |
|---|---|
| S40.14 I forgot to do the assignment last night, fuck. | Average: 9.3 |
| S63.9 Fred is going to Australia by ship on vacation this summer, shit. | Average: 7.5 |
| S63.10 Katie was waiting at the bus stop for three hours, in the rain fuck. | Average: 8.1 |

### c.  After First Subject

| | |
|---|---|
| S65.14 Fred, shit, is going to Australia by ship on vacation this summer. | Average: 4.0 |
| S65.15 Katie, fuck, was waiting at the bus stop for three hours in the rain. | Average: 5.0 |

### d.  After Verb

| | |
|---|---|
| S40.18 I forgot, fuck, to do the assignment on my computer last night. | Average: 4.1 |
| S40.19 I forgot to do, fuck, the assignment on my computer last night. | Average: 3.5 |

### e.  Before 1$^{st}$ PP

| | |
|---|---|
| S40.16 I forgot to do the assignment, fuck, last night. | Average: 2.9 |
| S40.17 I forgot to do the assignment, fuck, on my computer last night. | Average: 3.1 |
| S63.3 Fred is going to Australia, shit, by ship on vacation this summer. | Average: 3.7 |
| S63.4 Katie was waiting, fuck, at the bus stop for three hours in the rain. | Average: 4.3 |

### f.  After 1$^{st}$ PP

| | |
|---|---|
| S63.5 Fred is going to Australia by ship, shit, on vacation this summer. | Average: 3.0 |
| S63.6 Katie was waiting at the bus stop, fuck, for three hours in the rain. | Average: 5.1 |

### g.  After 2$^{nd}$ PP

| | |
|---|---|
| S63.7 Fred is going to Australia by ship on vacation, shit, this summer. | Average: 2.6 |
| S63.8 Katie was waiting at the bus stop for three hours, fuck, in the rain. | Average: 4.6 |

*3.7 Coordinated Structures*

*3.7.1 Coordinated DPs*

Expletives are acceptable at the left and right edges, even when the first subject is a complex one, featuring coordinated proper names. As may be expected given the data presented thus far, all other positions are strictly ungrammatical.

*(19)      Coordinated DPs*

    a.  *Left Edge*

| | |
|---|---|
| S63.11 Fuck, George and Fred are going to be late. | Average: 9.3 |
| S63.12 Shit, Katie and Susan are stuck in traffic. | Average: 9.5 |

    b.  *Right Edge*

| | |
|---|---|
| S42.10 John and Mary got lost because Steve gave them bad directions, fuck. | Average: 8.3 |
| S63.19 George and Fred are going to be late, fuck. | Average: 9.0 |
| S63.20 Katie and Susan are stuck in traffic, shit. | Average: 9.1 |

    c.  *After Coordinated DPs*

| | |
|---|---|
| S42.7 John and Mary, fuck, got lost because Steve gave them bad directions. | Average: 2.9 |
| S65.9 Katie and Fred, shit, are out in the park because they are trying to catch a stray dog. | Average: 4.7 |
| S63.17 George and Fred, fuck, are going to be late. | Average: 4.3 |
| S63.18 Katie and Susan, shit, are stuck in traffic. | Average: 4.9 |

    d.  *Before Coordinator*

| | |
|---|---|
| S42.17 John, shit, and Mary, got lost because Steve couldn't read the map and gave him bad directions. | Average: 2.6 |
| S63.13 George, fuck, and Fred are going to be late. | Average: 2.7 |
| S63.14 Katie, shit, and Susan are stuck in traffic. | Average: 3.4 |

     *e.  After Coordinator*

| | |
|---|---|
| S42.18 John and, shit, Mary, got lost because Steve couldn't read the map and gave him bad directions. | Average: 2.5 |
| S63.15 George and, fuck, Fred are going to be late. | Average: 3.2 |
| S63.16 Katie and, shit, Susan are stuck in traffic. | Average: 3.4 |

*4.7.2 Coordinated VPs*

The left edge remains acceptable, even when coordinated VPs are involved, but no other positions are allowed.

*(20)      Coordinated VPs*

     a.  *Left Edge*

| | |
|---|---|
| S42.11 Shit, John got lost because Steve couldn't read the map and gave him bad directions. | Average: 9.1 |
| S64.1 Fuck, George was angry because Fred forgot his birthday and totaled his car. | Average: 8.1 |

     b.  *Right Edge*

| | |
|---|---|
| S64.2 George was angry because Fred forgot his birthday and totaled his car, fuck. | Average: 7.5 |
| S65.16 Katie is still at the park because she found a stray dog and is still looking for his owner, shit. | Average: 6.8[7] |

     c.  *After 1ˢᵗ Subject*

| | |
|---|---|
| S64.3 George, fuck, was angry because Fred forgot his birthday and totaled his car. | Average: 3.3 |
| S67.19 Anna, fuck, mentioned that George was angry and called the police. | Average: 5.7 |

---

[7] The difference between S64.2 and S65.16 has been determined to be statistically insignificant by the T-Test. Therefore, this position is considered grammatical without further discussion.

### d. Before Coordinator

| | |
|---|---|
| S42.13 John got lost because Steve couldn't read the map, shit, and gave him bad directions. | Average: 5.0 |
| S64.6 George was angry because Fred forgot his birthday, fuck, and totaled his car. | Average: 4.4 |
| S65.17 Katie is still at the park because she found a stray dog, shit, and is still looking for his owner. | Average: 4.1 |

### e. After Coordinator

| | |
|---|---|
| S42.14 John got lost because Steve couldn't read the map, and, shit, gave him bad directions. | Average: 3.3 |
| S64.7 George was angry because Fred forgot his birthday and, fuck, totaled his car. | Average: 5.8 |
| S64.18 Katie is still at the park because she found a stray dog and, shit, is still looking for his owner. | Average: 6.1 |

### f. Other

| | |
|---|---|
| S64.8 George was angry, fuck, because Fred forgot his birthday and totaled his car | Average: 4.2 |

### 4.7.3 Coordinated TPs

In keeping with the pattern of restricted locations for Expletives, none of the usual suspects for grammatical interpolation are allowed where coordinated TPs are involved, except for the left edge – even the right edge is no longer permissible.

(21)     *Coordinated TPs*

### a. Left Edge

| | |
|---|---|
| S42.1 Fuck, Steve gave him bad directions and he got lost. | Average: 8.7 |
| S64.9 Hell, Fred tried apologizing, but George wouldn't listen. | Average: 8.5 |

      *b.  Right Edge*

S42.4 Steve gave him bad directions and he got lost, fuck.     Average: 4.9
S64.10 Fred tried apologizing, but George wouldn't listen, hell.     Average: 4.4


      *c.  After First Subject*

S64.11 Fred, hell, tried apologizing, but George wouldn't listen.     Average: 3.6
S67.20 George, shit, was angry and called the police.     Average: 5.3

      *d.  Before Coordinator*

S42.3 Steve gave him bad directions, fuck, and he got lost.     Average: 4.9
S64.13 Fred tried apologizing, hell, but George wouldn't listen.     Average: 4.0


      *e.  After Coordinator*

S42.2 Steve gave him bad directions and, fuck, he got lost.     Average: 6.6
S64.14 Fred tried apologizing, but, hell, George wouldn't listen.     Average: 6.9


While these data are at the high end of inconclusive, technically, neither has earned a grammatical score. Further, although the collected data for these utterances do show differences across age group lines, they do not do so to a statistically significant degree or consistently across the utterances.


(i)     S42.2 Steve gave him bad directions and, fuck, he got lost.     Average: 6.6

| Age Range | Average | Standard Deviation |
|-----------|---------|--------------------|
| 18 – 29   | 5.3     | 2.3                |
| 30 – 39   | 7.6     | 1.2                |
| 40 – 49   | 6.6     | 3.0                |
| 50+       | 7.6     | 2.2                |

(ii)     S64.14 Fred tried apologizing, but, hell, George wouldn't     Average: 6.9
          listen.

| Age Range | Average | Standard Deviation |
|-----------|---------|--------------------|
| 18 – 29 | 7.0 | 1.9 |
| 30 – 39 | 6.6 | 1.9 |
| 40 – 49 | 4.0 | 2.5 |
| 50+ | 8.3 | 1.6 |

Given this, there is no compelling reason to determine that this position is grammatical without further data.

    *f.   Between Verb and Complement of First TP*

S64.12 Fred tried, hell, apologizing, but George wouldn't listen.     Average: 3.1
S68.1 Katie got, shit, a new job and Anna graduated.     Average: 4.5

## 5   Conclusions

*5.1 Grammatical Interpolation Points*

*5.1.1 Conclusively Grammatical Interpolation Points*

Unlike other PEs, the data have shown Expletives to be very restricted in their ability to interpolate. The only truly sacrosanct position is at the left edge, which is judged grammatical in any context.

1. The Left-Edge

XPROOT

YP          XPROOT
[EXPL]

2. The Right-Edge

XPROOT

XPROOT       YP
             [EXPL]
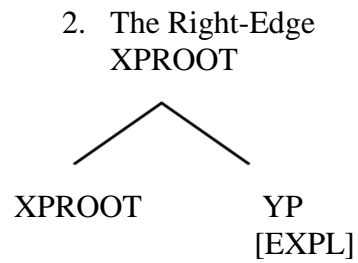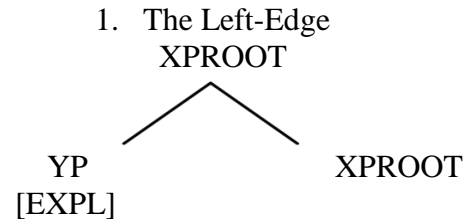
The right edge is largely acceptable, but may still be inconclusive or even ruled out in certain instances, such as those involving [+Q] WH words, PP chains, Auxiliary chains with more than two auxiliary verbs, coordinated VP structures, or coordinated TPs.

*5.1.2 Potentially Grammatical Interpolation Points*

While the data show that the conclusively grammatical positions are minimal, there has have been some potentially grammatical position which merit mentioning at this point.

1.  After the Second Fronted [+focus] DP in an Utterance with Contrastive Topicalization



While this position merited only scores of 7.0 and 6.3, which are statistically indistinct from one another, their borderline nature gives one pause before terming it conclusively grammatical. Only further investigation can clarify whether this position is a consistently grammatical one.

2.   Following the Coordinator of an Utterance with

Contrastive Topicalization
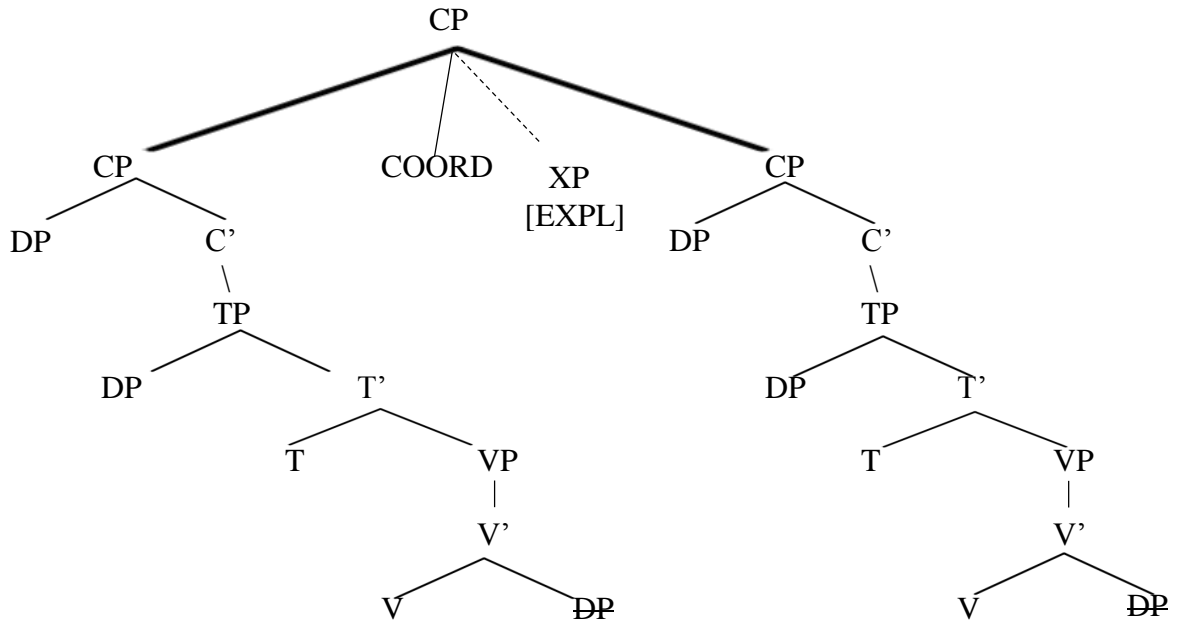


As discussed in Section 4.1, the position following the coordinator in an utterance with Contrastive Topicalization has earned inconclusive scores, but has shown grammatical judgment ratings for male subjects. The tables showing these results follow.

(i)      S66.18 John I like but, fuck, Susan I can't stand.                          Average: 6.8

| Self-identified Gender | Average | Standard Deviation |
|---|---|---|
| Female | 5.4 | 1.2 |
| Male | 7.3 | 2.3 |

(ii)     S66.19 Green I like but, shit, pink I hate.                    Average: 6.7

| Self-identified Gender | Average | Standard Deviation |
|---|---|---|
| Female | 4.9 | 1.8 |
| Male | 7.3 | 2.4 |

3.  Following the Coordinator of a Coordinated TP Structure



As discussed in Section 4.7.3, while technically inconclusive, the position after the coordinator of a coordinated TP structure has met with results at the very high end of the inconclusive range − 6.6 and 6.9. However, due to the lack of a 7.0 and the inconsistent and insignificant variations present in the data which correlate by age, this position was not able to be considered conclusively grammatical at this time. Future research may determine this decisively, but the present data cannot do so.

*5.2 Subject Intuitions, the Methodology, and the Parenthetical Debate*

*5.2.1 Variation by Age Group*

Some subject comments have suggested that some of the subjects feel that the use of Expletives and the grammaticality thereof is heavily affected by the age of the subject making the judgments.

(22)         S62.14 John may have been taking dance lessons, fuck.         Average: 6.3

Comments:

    a.   THE F WORD IS NOT COMMONLY USED BY PEOPLE OVER 40

However, the data have shown this to be incorrect. In general, one is hard pressed to find any significant differences in ratings which correlate with age groups. Ironically, despite this particular subject's intuitions, the highest rates of acceptability for this sentence come from the 40 to 49 year old age group:

(23)    S62.14 John may have been taking dance lessons, fuck.    Average: 6.3

|  | Average | Standard Deviation |
|---|---|---|
| Across all Ages | 6.3 | 2.6 |
| 18 to 29 | 5.8 | 2.4 |
| 30 to 39 | 6.3 | 2.4 |
| 40 to 49 | 7.5 | 2.1 |
| 50 and older | 5.9 | 3.2 |

This particular sentence is among those with more variation when it comes to age groups, but even so, none of these differences are statistically significant according to the T-Test. This goes to show that subject intuitions, while important and interesting, do not always reflect the reality shown by the data.

*5.2.2 Expletives as Parentheticals*

It has been mentioned that interjective hesitators (e.g. "uh", "um", etc.) are not included in the list of parentheticals because they can appear anywhere and do not serve the function of assisting the hearer in interpreting the host clause. Expletives have traditionally been classified as interjections (Kaltenböck 2007). However, I would argue that, unlike interjective hesitators, they *do* serve to orient the hearer as to how to process the host clause. This, by the definition used by Blakemore (2006) and Dehe and Kavalova (2007:9), makes them parentheticals. In fact, Expletives exhibit other traits indicative of parenthetical status. They are often prosodically distinct from and maintain a one-way

relationship with the host clause. While linearly integrated (in up to three potentially grammatical utterance-internal positions), they are their own domains (e.g. they are self-sufficient, not requiring syntactic licensing by the host clause). This, by all accounts, constitutes a parenthetical. Where things become less clear is in the discussion of the myriad of purposes various forms of Expletives can serve.

Expletives can appear in what Ljung (2009) calls "pure interjection", which is equivalent to what Jay and Janschewitz (2008:270) call "non-propositional" swearing. These forms can crop up somewhat unexpectedly as a semi-involuntary[8] reaction to stimuli rather than a conscious stylistic choice (e.g. "Could you – oh, shit! – hand me that towel please?"). These pure interjections, while expressions of the emotional state of the speaker, are arguably not used to orient the hearer regarding the utterance and are thus are rather like the objects disqualified as parentheticals in Taglicht's (1998:195) discussion of expressions which are "addressed to the same person as the surrounding utterance but unconnected with it", such as "Thank you" and "Come in!"

Other Expletives are consciously chosen for pragmatic purposes (e.g. "That's a damn shame.") The Expletives specifically probed in this work are parentheticals rather than simple obscenities. That is to say that "fuck" being used as a parenthetical is fundamentally different from other uses such as "damn" when used as a simple modifier as in "That's a damn shame". The parenthetical is also distinct from uses found in expressions such as "son of a bitch" and "asshole", when used as simple subjects, objects or Vocatives (while that is parenthetical in nature, it does not serve the same function as the Expletive PE). It can be reasonably agreed that simple obscenities are not

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[8] Non-propositional swearing may also be completely involuntary in the case of neurological disorders, such as Tourette's.

parentheticals and that pure interjections are also not parentheticals, but for the opposite reasons. The difficulty with Expletives is determining where certain usages fall on the gradient scale of simple obscenity to pure interjection.

Unfortunately, as lamented by previous scholars, it is not always simple to "determine just what it is the expletive interjection is meant to express" (Ljung 2009:158). In fact, much of the weight of determining the intended purpose of the Expletive lies squarely on the shoulders of prosody – specifically the cues of intonation and pauses. Similarly, determining the whether an expletive constitutes propositional or non-propositional swearing is also reliant upon these cues. For example, (24) seems to be more intentionally used than (25), but determining the difference between (25) and (26) is more difficult.

(24)     Well, shit, do you need me to go with you to the hospital?

(25)     Shit! My heel just broke!

(26)     Shit, my car won't start.

The grey areas of the scale which has simple, completely integrated obscenities one end, Expletive PEs in the middle, and pure interjection Expletives at the other end can be hard to probe, especially when the Expletive comes at an edge. The lines between parenthetical adjuncts at the edges and separate utterances have never been particularly clear. In fact, many subjects have indicated that they have understood, or would prefer to interpret, an Expletive at the left or right edge as a separate utterance:

(27)        S38.12 My ex-boyfriend is here, damn.                    Average: 9.4

Comments:

    a. None
    b. While I rated this a 10, the way this is structured sounds like two
       sentences: My ex-boyfriend is here. Damn!

(28)        S42.6 Fuck, John and Mary got lost because Steve gave    Average: 8.5
           them bad directions

Comments:

    a. Natural expression.
    b. If the "fuck" was a separate sentence, I'd give it a higher rating. Attached to
       the end (via a comma?), it doesn't seem natural.

(29)        S42.11 Shit, John got lost because Steve couldn't read   Average: 9.1
           the map and gave him bad directions.

Comments:

    a. Quite natural, I'm getting mad at Steve as well.
    b. Sounds fine, but only if I hear it as a complete sentence, followed by the
       expletive.

(30)        S39.5 I can't find my phone, fucking shit.              Average: 7.3

Comments:

    a. None
    b. Sounds more like two sentences
    c. lol

(31)        S39.12 It looks like rain, shit.                        Average: 9.2

Comments:

    a. None
    b. Sounds like two sentences.


     The difference between the boundaries between host clause and parenthetical

versus the occurrence of two separate clauses can be difficult to determine. While

"comma intonation" can be used to convey that an object is a parenthetical, the separate intonation and use of pauses can indicate separate utterances to some speakers. Only a comprehensive study focusing specifically on speaker judgments as they relate to various combinations of pauses and intonation could hope to provide clarity on this issue, but I would suspect that regardless of the prosody and pause lengths, some subjects would always insist that the Expletives are separate. Ultimately, studying objects at the edges entails a certain level of opacity when it comes to this issue.

On the other hand, studying Expletive PEs utterance-internally is not without its own oddities. Specifically, the subject intuitions are often at odds with one another, and sometimes, at odds with the data. For example, the data show that speakers rate most utterance-internal Expletives very poorly, but, paradoxically, subject comments have also reflected the intuition that Expletives can, or should be able to, interpolate freely.

(32)     S39.7 It's raining, fuck.                                  Average: 8.8

Comments:

    a. As opposed to "It's raining cats and dogs"? Rather awkward sounding.
    b. None
    c. It's weird but cussing fits just about anywhere in a sentence without sounding out of place usually.

(33)     S39.8 It's, fuck, raining.                                 Average: 3.4

Comments:

    a. None
    b. A little more awkward but again frustration can come mid sentence [sic] and it doesn't feel all that unusual.

These intuitions likely reflect the understanding that pure interjections do interpolate freely as they are generally not completely intentional in the sense that other Expletives are. Despite this, the data show low ratings for these attempts. Still, while some subjects state their displeasure with uses which appear to be pure interjection, others suggest that this use of Expletives is natural for situations which involve stimuli to which the speaker reacts, mid-expression.

(34)      S63.3 Fred is going to Australia, shit, by ship on vacation    Average: 3.7
          this summer.

Comments:

    a. The placement of the expletive makes no sense.
    b. weird spot to suddenly swear

(35)      S63.14 Katie, shit, and Susan are stuck in traffic.            Average: 3.7

Comments:

    a. same issue with placement it doesn't feel right in that location of the
       sentence.

(36)      S42.7 John and Mary, fuck, got lost because Steve gave        Average: 2.9
          them bad directions.

Comments:

    a. The explicit word is in the wrong location.
(37)      S42.14 John got lost because Steve couldn't read the map,     Average: 3.3
          shit, and gave him bad directions.

Comments:

    a. The author may have Tourette's here, or at least sounds [sic] like it. I'm
       not making light of Tourette's, but this is what is [sic] sounded like.

(38)    S42.20 Shit, John, fuck, and Mary got lost because Steve    Average: 2.9
couldn't read the map and gave him bad directions.

Comments:

    a. It sounds like their [sic] in the middle a [sic] very chaotic scene that is eliciting the curse words.
    b. Disjointed and very difficult to understand the location of the author's frustrations. Good luck with your research.

While the subjects have expressed strong distaste for certain positions within the utterance, few have been considered grammatical or potentially grammatical, specifically the position following the second fronted [+focus] DP in an utterance with Contrastive Topicalization, following the coordinator of such an utterance, and following the coordinator of a Coordinated TP Structure. Further, as will be discussed in Chapter 7: Multiple PEs, Section 2.3.2, Expletive PEs can be found between other PEs in a PE chain at the Left edge. This also indicates that the Expletive is a PE rather than a separate utterance or pure interjection at least in these four instances of interpolation. If they are parentheticals in all these other locations, why, then, must we concede that a lone Expletive PE at the edge is not a PE at all?

Along these lines, Ljung (2009)'s study on British English Expletives from the spoken portion of the BNC (British National Corpus) has yielded data not only displaying what he calls "pure interjections", but also "gap fillers" (i.e. Expletives which take up a "turn") and "slot fillers" (i.e. Expletives which are part of a turn, but do not constitute one by themselves). Of his 513 Expletives, only 92 were "pure interjections" by his reasoning. His study of Expletives taken from actual speech yielded several utterance-internal

Expletive occurrences. Some 226 occurred "immediately before a clause"[9], 2 "in the middle of a clause", 40 "immediately after a clause", 30 "immediately before a word or phrase", and 7 "immediately after a word or phrase" (Ljung 2009:163). While these labels are not as precise as one might hope, what they do show is that, at least in British English, Expletives of the kind studied here[10] are found utterance-internally in actual speech. Studying Expletives in actual usage, while fundamentally different than the approach taken in this work, also has its merits. In fact, I believe that a similar study to Ljung (2009) utilized for the American variety of English would prove complementary to the data collected here.

### 5.2.3 Language vs. Speech

If *all* of the Expletives studied here are indeed interjectors of a non-propositional variety, one might expect them to appear anywhere in the utterance much like the interjective hesitators "uh" and "um" in practice if not theory, but that is the issue's heart. After investigating the possibilities of demographical information correlating with higher or lower than average judgments, I now believe that it is possible that the variability in these cases may be linked not to dialect, gender, education level or age distinctions, but rather to what Blakemore (2006) calls the distinction between "language" and "speech". Language, on the one hand, is strictly bound by what the grammar generates versus speech, which is what speakers actually generate. This distinction is not terribly unlike

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[9] Given his limited examples, it is impossible to say whether or not these included before embedded clauses or if all of these were at the left edge.

[10] Ljung (2009) studied Expletives more common in British English such as "bugger", "Christ", and "cor", but also studied "fuck", "damn", "Oh God", "hell", "Jesus", and "shit".

Chomsky's classic "competency" versus "performance" division, but "speech", unlike performance errors, does not reflect inherently erroneous constructions. Instead, it is more akin to prescriptivism versus descriptivism in the minds of native speakers.

Considering this, it is possible that the levels of grammatical judgments are related to the degree to which the subject is accepting of "real" speech versus applying prescriptivist rules of how one "should" speak. For example, while S67.17 achieved only an inconclusive 6.3 average, one subject (who rated it a 10), provided the following comment:

(36)    Video games, I enjoy, but movies, fuck, I love.          Average: 6.3

Comments:

   a. Vulgar, but definitely structured how my friends would speak.

Unfortunately, none of the subjects have commented with something as explicit and useful as "I rated this poorly, but my friends would say it", but the concept of the language vs. speech debate being alive and well in the minds of the subjects seems plausible. After all, even without any parentheticals of any kind, certain attested phenomena such as CP Subject formation do not score very high on the grammaticality scale:

*(37)    No Parenthetical CP Subject Formation*

S2.18 That he stole my watch is clear.          Average: 6.8
S56.2 That it snowed last night is unfortunate.          Average: 7.0

Similarly, I would posit that even attested speech may fail to earn conclusively grammatical scores. For example, even the "and" parenthetical found in "Unfortunately for him, and it is a serious thing at his age, he'd fractured a leg" (Dehe and Kavalova 2007:146), which was taken directly from the International Corpus of English (ICB-GB), may be met with ungrammatical judgments, especially if the subject is explicitly asked to rate the utterances for grammaticality[11].

As Jay and Janschewitz (2008:268) put it, "swearing is a topic that is most amenable to study in natural settings, but laboratory studies offer more control over the variables of interest." While the methodology employed in this work has provided useful data, it has its own pitfalls. One such potential issue the laboratory setting raises is that studying the gradient scale of grammaticality may entail making the subjects hyperaware of the "language" rules rather than "speech" realities. By asking the subjects to focus on whether or not the utterance is "normal", the subjects may become more likely to judge the utterances more harshly than they otherwise might. Essentially, because they are being asked to be judges, the subjects judge harshly where they would accept outside of a laboratory setting. However, this speculation can only be confirmed by future research and even if this is the case, the insights provided by the subjects' intuitions, whether attributed to language or speech, remain worth studying. These judgments and intuitions have been presented and explored in this chapter.

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[11] While I believe this to be accurate, only future research can confirm this speculation. At present, such research is not undertaken as the focus of this work is on the usage of parentheticals as presented by speaker intuitions by way of grammaticality judgments.

*5.3 Final Conclusions*

In closing, my data have shown that speakers are extremely particular when it comes to where Expletives can interpolate, at least when asked to judge them in a laboratory setting. Expletives are used to orient the hearer as to how he/she should interpret and respond to the proposition in the host clause. They are often prosodically distinct from their host clauses. They have three (potentially) grammatical utterance-internal interpolation points, and data from Chapter 7: Multiple PEs show that Expletives are capable of appearing grammatically between other PEs in a PE chain at the left edge (see Chapter 7: Multiple PEs, Section 2.3.2). If we are to consider the list of characteristics which objects must meet to be considered parenthetical, Expletives fulfill all the requirements thereof. Given these facts, even if the Expletives are truly separate when appearing at the edges, they are still parentheticals by my reckoning. Further study into the uses of these PEs as indicated by prosodic characteristics, investigations into actual usage of Expletives, and an inquiry into the language versus speech struggle in the minds of speakers being asked to judge grammaticality would all be required in order to truly fully understand Expletive PEs in American English. Further, the gradient scale from simple obscenity to pure interjection also merits explicit investigation. At present, these undertakings await for another eager scholar to investigate.

# 7. MULTIPLE PARENTHETICAL EXPRESSIONS

## 1  Introduction

### 1.1 Multiple Parenthetical Expressions per Utterance

When one enters the discussion of Parenthetical Expressions, and particularly when discussing several types of them which serve different functions, the possibility of multiple PEs appearing in a single utterance is something of an inevitability. If there are patterns for interpolation for each of these types of parentheticals by themselves, it follows quite naturally that there must be definable patterns as to which of said categories of PEs can be used in the same utterance. The data show that multiple PEs may co-occur in a single utterance grammatically in certain combinations. This chapter outlines the data which have been collected in the course of this work regarding the possibility of multiple parentheticals of varying types existing in combination within the same utterance.

### 1.2 Scope of Discussion

Once again, this simple foray into the study of parentheticals has drawn attention to another potentially endless abyss of experimentation and research to be done. After all, opening the great can of worms which is the possibility of multiple occurrences also brings

with it the infinite theoretical possibilities thereof. As such, boundaries must be set for the scope of this particular work. Before realizing the arduous depths of research which would have to be explored in order to fully address this idea for each potentially grammatical position for each category in combination with one another, I began testing multiple occurrences with various positions as I found them possible in my own idiolect. After further consideration of the matter and the finite nature of both this work, I later determined to focus on the possibilities apparent at the left edge of the utterance. This limits the scope quite a bit, but does still allow for an untenable amount of possibilities to be probed. Even with only four types to investigate in this limited survey, testing the left edge would, in theory, merit every possible variation from a single Vocative, to an infinite number of combinations of various categories.

In an attempt to keep the data within the realms of both human comprehension and common sense, I have further limited the study to a maximum to four[1] PEs at the left edge. These possibilities do include doubling of one category and the inclusion of single occurrence(s) of others within the same utterance. With no further ado, I give you the fruits of this particularly multifaceted labor.

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[1] With the exception of the cases of S48.8 and S48.3, which have a total of five.

**2 Results**

*2.1 Doubles*

It is, of course, proven that all of these types may occur at the left edge by themselves; but what of two of the same kind? The data show that this is possible, in some particular instances, both in cases where the two of PEs are directly adjacent to one another and cases in which they are separated by the host clause or parts thereof.

*2.1.1 Vocative Doubles*

Vocatives are capable of appearing in succession at the left edge, and even in a few other locations[2], but the order can sometimes play a role – especially outside the left edge position. Specifically, the data show that when two Vocatives are immediately adjacent, there is a significantly preferred order – a simple DP followed by a DA*N.

*(1) Immediately Adjacent Vocative Doubles*

    *a.  Left Edge*

S13.1 Clark, honey, are you alright?                                    Average: 9.6
S13.2 Jake, you jerk, give me back my book!                            Average: 8.8
S13.3 Sasha, dear, you should really try to relax.                     Average: 8.9
S17.10 John, you idiot, Susan hated that cat.                          Average: 8.4
S51.19 You moron, Steve, Fred quit his job.                           Average: 8.0
S70.1 You jerk, Susan, you know he just got out of the hospital!      Average: 9.2
S70.2 Sweetheart, John, your car was stolen.                          Average: 8.6

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[2] While Vocative Doubles have been investigated, this occurred before the scope of the project regarding multiple PE occurrences was narrowed. Therefore, the other categories do not feature as many tested utterances. This constitutes another area for future research to probe.

### b. *Right Edge*

| | |
|---|---|
| S13.11 Just give her the keys, you jerk, John. | Average: 5.8 |
| S13.12 Just give her the keys, John, you jerk. | Average: 7.2 |
| S13.4 Your mom went to the store, Bobby, sweetheart. | Average: 6.4 |
| S13.5 I think you should sit down, Jim, dear. | Average: 6.8 |

While the right edge features inconclusive to grammatical and mildly grammatical data, these facts do indicate that the order of Vocative Doubles at the right edge does matter. This fact is demonstrated by the statistically significant difference between the otherwise identical S13.11 and S13.12. It is also attested by forms which include other parentheticals in addition to the Vocative doubles:

| | |
|---|---|
| S43.11 Fuck, I need to borrow your notes, Karen, you beautiful genius. | Average: 8.2 |
| S43.12 Fuck, I need to borrow your notes, you beautiful genius, Karen. | Average: 4.9 |

### c. *After First Subject*

#### 1. *After First DP Subject*

| | |
|---|---|
| S13.8 I, Eric, honey, am going to the party. | Average: 6.6 |
| S13.9 You, Karen, dear, need to get a life. | Average: 6.6 |
| S13.10 I, Ben, darling, don't care what you think. | Average: 6.8 |
| S13.13 You, Sean, my dear, are in for a surprise. | Average: 7.9 |

Here, the data are largely inconclusive, but S13.13 shows that the Vocative doubles may be more grammatical when following a subject which is a second person pronoun. Further research would be necessary to support this inference with absolute confidence.

## 2. *After a CP Subject*

| | |
|---|---|
| S13.14 That he's allergic to peanuts, Alice, my dear, is somewhat important. | Average: 5.5 |
| S13.15That you broke your leg, Sean, honey, is unfortunate. | Average: 5.1 |
| S13.16 Because he was embezzling, Jake, sweetheart, your brother was fired. | Average: 5.6 |

### d. *Before Complementizer of Embedded CP*

| | |
|---|---|
| S13.6 Did you know, Bobby, dear, that your parents are in town? | Average: 7.0 |
| S13.7 I'm pretty sure, John, you jackass, that I'm going to pass the exam. | Average: 7.0 |

### e. *PP Chain*

| | |
|---|---|
| S13.17 He already left town by bus last Thursday, Eric, dear. | Average: 6.6 |
| S13.18 He already left town, Eric, dear, by bus last Thursday. | Average: 5.6 |
| S13.19 He already left town by bus, Eric, dear, last Thursday. | Average: 5.6 |
| S13.20 That ugly house, Ben, darling, is ours now. | Average: 5.6 |

### f. *With Additional PEs*

| | |
|---|---|
| S17.11 John, you idiot, Susan hated that cat, you know. | Average: 6.4 |
| S44.1 Karen, you beautiful genius, I need to borrow your notes, you see. | Average: 7.5 |
| S43.15 Karen, you beautiful genius, I need to borrow your notes, fuck. | Average: 4.1 |
| S43.16 You beautiful genius, Karen, I need to borrow your notes, fuck. | Average: 3.7 |
| S48.6 Incidentally, Steve, you naïve fool, Susan hated that cat. | Average: 7.8 |
| S48.10 Incidentally, Steve, you naïve fool, Susan hated that cat, I hear. | Average: 6.3 |
| S48.11 Incidentally, Steve, you naïve fool, it turns out, Susan hated that cat, I hear. | Average: 6.2 |
| S48.8 Incidentally, Steve, you naïve fool, you know, it turns out, Susan hated that cat. | Average: 5.6 |
| S48.9 Incidentally, Susan hated that cat, Steve, you naïve fool. | Average: 7.6 |
| S48.7 Incidentally, Steve, you naïve fool, Susan hated that cat, it turns out. | Average: 6.0 |
| S43.20 You see, Karen, you beautiful genius, I need to borrow your notes, fuck. | Average: 4.3 |
| S43.11 Fuck, I need to borrow your notes, Karen, you beautiful genius. | Average: 8.2 |
| S43.12 Fuck, I need to borrow your notes, you beautiful genius, Karen. | Average: 4.9 |

Another interesting piece of data is the fact that when Vocatives appear in the preferred order (i.e. a simple DP such as a proper name followed by a DA*N Vocative), an utterance can be grammatical even with the addition of another type of PE elsewhere in the utterance. However, such utterances are subject to the grammaticality considerations posed by the additional PEs. That is to say that an utterance with two Vocatives in the right order at the left edge may be acceptable, even if another PE is involved, but grammaticality is not guaranteed in such a case. Other factors such as the type and location of the additional PE(s) are crucial variables when it comes to grammaticality judgments[3].

g.  *Non-Adjacent Vocative Doubles*

S43.13 Fuck, Karen, I need to borrow your notes, you beautiful          Average: 7.7
        genius.
S43.14 Karen, fuck, I need to borrow your notes, you beautiful          Average: 6.0
        genius.

While these occurrences were not the focus of this work, the data do indicate that it is possible for two Vocative DPs to appear while separated from one another, even with other PEs present in the utterance. Future research could determine the rules for grammatical separation of Vocative Doubles.

*2.1.2 Mitigatory PE Doubles*

Mitigatory PEs, like Vocatives, are permitted to appear directly adjacent to one another in an utterance, but there are restrictions upon both positioning and which specific

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[3] These facts are discussed further in Section 2.2.

PEs are used in combination. While the left edge is possible for some combinations, the right edge is ungrammatical for a pair of Mitigatory PEs of any structure. When the Mitigatory PEs are separated from one another and other PEs are added into the equation, the results are much more varied.

### (2) Mitigatory PE Doubles

#### a. Left Edge

| | |
|---|---|
| S49.1 Incidentally, apparently, Karen read your book. | Average: 5.9 |
| S49.2 Apparently, incidentally, Karen read your book. | Average: 5.4 |
| S49.4 By the way, apparently, Karen read your book. | Average: 8.7 |
| S48.5 Incidentally, it turns out, Susan hated that cat, Steve. | Average: 7.8 |
| S15.20 Incident'ly, it turns out he has a girlfriend. | Average: 7.1 |
| S17.18 Incidentally, it turns out, Susan hated that cat. | Average: 8.0 |

The data show that the left edge allows several combinations but not all. For example, the two tested adverb Mitigatory PEs, "incidentally" and "apparently", meet with inconclusive results when used together, likely due to the fact that they are so similar in structure (i.e. they are both adverbs). On the other hand, two Mitigatory PEs of different forms have no such difficulties at the left edge, as long as they are the only PEs in the utterance.

#### b. Right Edge

| | |
|---|---|
| S70.3 Susan hated that cat, by the way, apparently. | Average: 4.7 |
| S70.4 Susan hated that cat, apparently, by the way. | Average: 4.5 |
| S70.5 Karen moved to Alaska, incidentally, it turns out. | Average: 4.5 |
| S70.6 Karen moved to Alaska, it turns out, incidentally. | Average: 4.6 |

*c.  With Additional PEs[4]*

| | |
|---|---|
| S47.19 It turns out, incidentally, you see, Susan hated that cat. | Average: 7.3 |
| S47.20 You see, it turns out, incidentally, Susan hated that cat. | Average: 8.1 |
| S49.3 Incidentally, you see, apparently, Karen read your book. | Average: 5.0 |
| S49.5 By the way, you see, apparently, Karen read your book. | Average: 6.2 |
| S48.1 Steve, incidentally, it turns out, Susan hated that cat. | Average: 7.2 |
| S48.2 Incidentally, Steve, it turns out, Susan hated that cat. | Average: 7.8 |
| S17.19 Incidentally, John, it turns out, Susan hated that cat. | Average: 7.8 |
| S48.4 Incidentally, Steve, it turns out, Susan hated that cat, I hear. | Average: 6.4 |
| S48.3 Incidentally, Steve, you know, it turns out, Susan hated that cat. | Average: 6.7 |

*2.1.3 Evidential PE Doubles*

Much like their Vocative and Mitigatory counterparts, Evidential PE doubles are somewhat restricted in usage. Interestingly, of the arrangements tested, only the combination of "you know" followed by "I hear" has been rated grammatical at the left edge. All other directly adjacent pairs of Evidential PEs – in any order – have been ruled ungrammatical or inconclusive.

*(3)  Evidential PE Doubles*

*a.  Left Edge*

| | |
|---|---|
| S69.1 You know, I hear, Karen might be moving to Alaska. | Average: 8.3 |
| S69.2 I believe, you see, John has a cat. | Average: 6.1 |
| S70.7 I hear, you know, Susan's car was stolen. | Average: 6.0 |
| S70.8 You see, I believe, the house is for sale. | Average: 5.8 |

The data for this position are a curious lot. While all other combinations of Evidential PEs at the left edge garner inconclusive results, S69.1 has a significantly higher

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[4] The occurrences of multiple PEs of varying types will be discussed in Section 2.2.

– and distinctly grammatical – score. This is interesting, particularly when the structurally similar S70.8 merited only a 5.8 average to S69.1's 8.3. A review of the suprasegmental level show the intonations for all of these utterances to be appear rather similar:

(i)     S69.1 You know, I hear, Karen might be moving to Alaska.     Average: 8.3
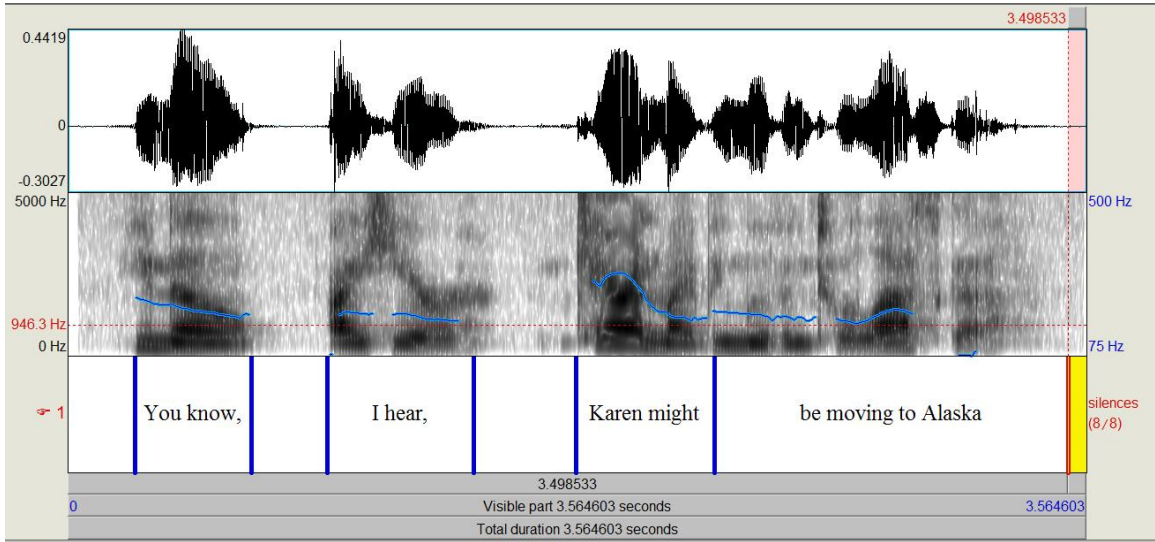


(ii)     S69.2 I believe, you see, John has a cat.     Average: 6.1
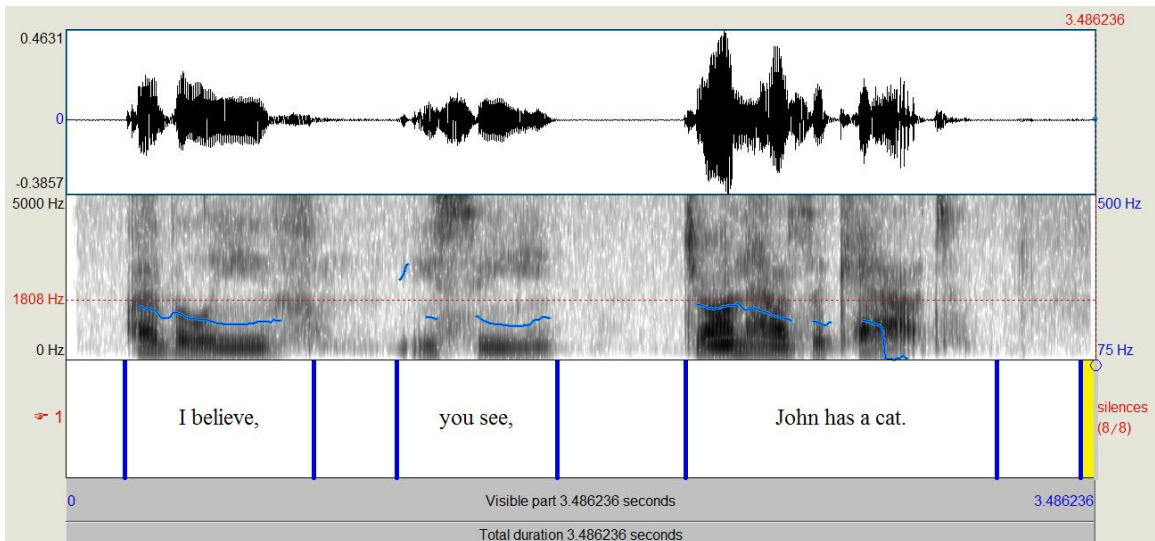
(iii)     S70.7 I hear, you know, Susan's car was stolen.          Average: 6.0
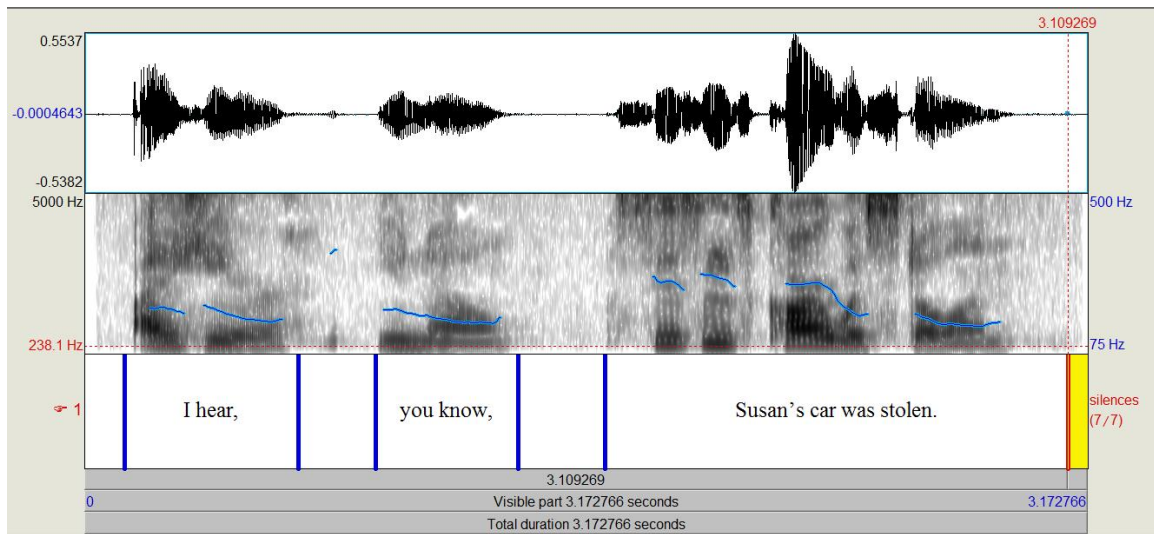


(iv)     S70.8 You see, I believe, the house is for sale.          Average: 5.8
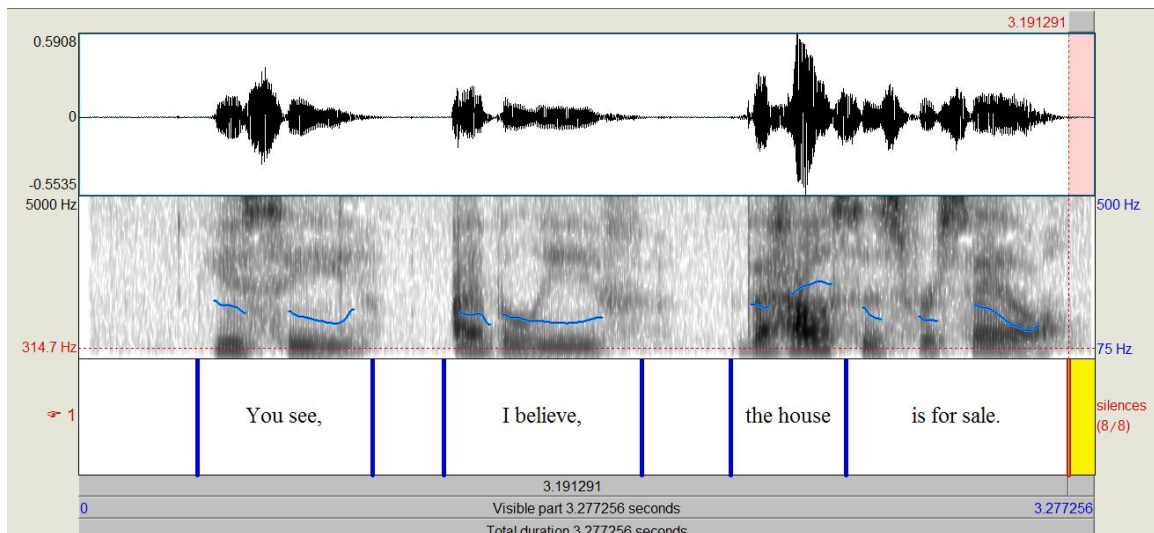


Given the prosodic similarities between these utterances, particularly those whose PEs share structure, I am inclined to believe that it may be the particular combinations utilized which result in the difference in grammaticality judgments. While the data do seem to suggest this, additional research would be required to confirm this finding.

      *b.  Right Edge*

S69.3 Karen might be moving to Alaska, you know, I hear.       Average: 5.2
S69.4 John has a cat, I believe, you see.       Average: 4.9
S70.9 Susan's car was stolen, I hear, you know.       Average: 4.7
S70.10 The house is for sale, you see, I believe.       Average: 4.9

      *c.  Non-Adjacent Evidential PE Doubles*

S17.13 You see, Susan hated that cat, I believe.       Average: 6.4
S17.14 You know, John is a moron, I believe.       Average: 6.2
S17.15 Turns out, Susan hated that cat, you know.       Average: 7.8[5]
S17.12 John, you see, Susan hated that cat, I hear.       Average: 4.4

### *2.1.4 Expletive Doubles*

Once again, Expletives are in a category of their own. While they have little to no restrictions when it comes to which the order of the expletives immediately precede and succeed one another, they may only do so at the edges. These facts which may indicate that they are being parsed not as syntactic adjuncts, but as their own separate utterances as discussed in Chapter 6. Further, while separated Expletive pairs were not the focus of this work and thus were only minimally probed, the collected data show that when separated from one another by the utterance expletives maintain consistently low scores. This is not unexpected given the inconclusive and ungrammatical scores that were met with when utterances attempted to insert Expletives in any utterance-internal position.

---

[5] It is possible that the grammaticality reflects subjects not parsing "(it) turns out" as a parenthetical, but rather are understanding the structure to be:
 CP [ CP [ (it) turns out CP[that Susan hated that cat] ] TP[you know] ] CP.
Only future study could determine whether or not this is the case.

*(4) Expletive Doubles*

    a.  *Left Edge*

| | |
|---|---|
| S69.5 Fuck, shit, I lost my keys. | Average: 7.7 |
| S69.6 Damn it, fucking shit, I'm being evicted. | Average: 8.3 |
| S69.7 Fucking hell, damn, my car was stolen. | Average: 7.6 |

    b.  *Right Edge*

| | |
|---|---|
| S69.8 I lost my keys, fuck, shit. | Average: 7.0 |
| S69.9 I'm being evicted, damn, fucking shit. | Average: 7.6 |
| S69.10 My car was stolen, fucking hell, damn. | Average: 7.6 |

    c.  *Non-adjacent Expletive Doubles*

| | |
|---|---|
| S42.19 Shit, John and Mary, fuck, got lost because Steve couldn't read the map and gave him bad directions. | Average: 3.5 |
| S42.20 Shit, John, fuck, and Mary got lost because Steve couldn't read the map and gave him bad directions. | Average: 2.9 |

As previously mentioned, the data for even single expletive occurrences met with inconclusive and ungrammatical judgments for any position other than the edges (see Chapter 6: Expletives for details). Given this, expletive doubles which are not presented in immediate succession are unsurprisingly ungrammatical. Furthermore, subject comments suggest that such behavior is unnatural.

| | | |
|---|---|---|
| (i) | S42.19 Shit, John and Mary, fuck, got lost because Steve couldn't read the map and gave him bad directions. | Average: 3.5 |

Comments:

    a.  OK. Now you're just throwing in extra profanity for the fun of it!
    b.  The author displays emotion but not in the most optimal locations.
    c.  Very confusing.

(ii)     S42.20 Shit, John, fuck, and Mary got lost because Steve          Average: 2.9
         couldn't read the map and gave him bad directions.

Comments:

    a.  It sounds like their [sic] in the middle a [sic] very chaotic scene that is
        eliciting the curse words.
    b.  Disjointed and very difficult to understand the location of the author's
        frustrations. Good luck with your research.

### 2.2 Multiple PEs of Various Types

### 2.2.1 Positional Terms Used

To discuss the possibility of several PEs in the same utterance, I have created some position names for ease of reference. At the left edge, there is position A1. As more and more items adjoin to it, the further away they get, the higher the number goes. At the left edge, the same principle applies with B1 being the closest to the tree. Example structures follow:

```
              XPROOT
             /      \
           A4      XPROOT
                  /      \
                A3      XPROOT
                       /      \
                     A2      XPROOT
                            /      \
                          A1      XPROOT
```

```
                        XPROOT
                         /\
                        /  \
                  XPROOT      B4
                   /\
                  /  \
            XPROOT      B3
             /\
            /  \
      XPROOT      B2
       /\
      /  \
XPROOT      B1
```
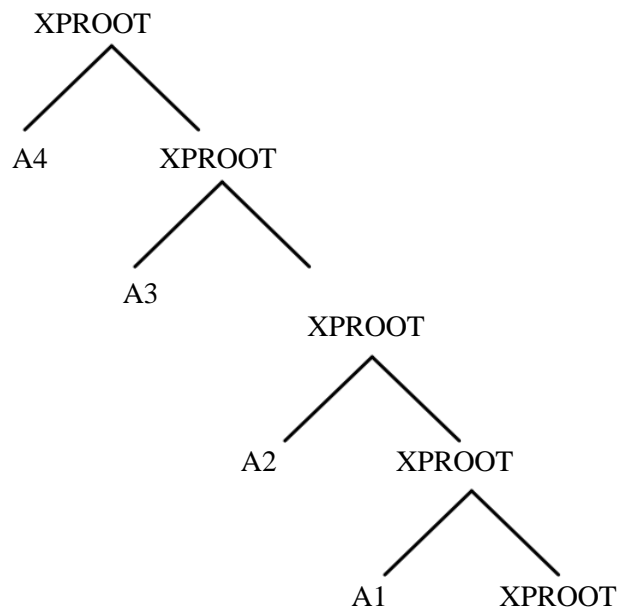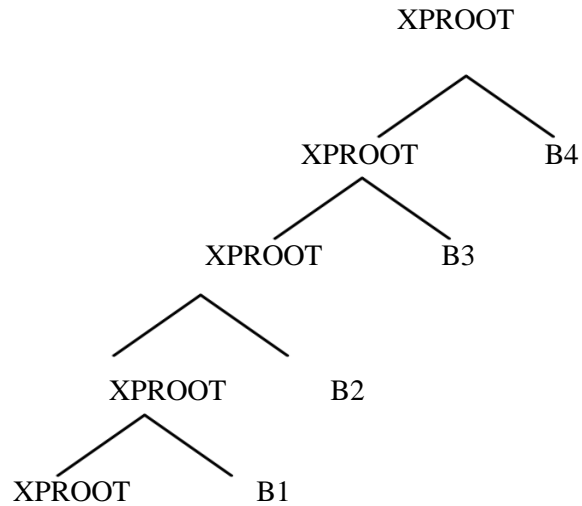
*2.2.2 The Combinations of Categories and Positions Tested*

When it comes to this work, as stated in the Introduction of this chapter, the scope is limited to focusing on the left edge and thus positions A1 through A4. This still leaves many combinations to test, and test them I did. Rather than providing each utterance and its average in a list, resulting in a wall of almost unintelligible data, I have organized the tested positions in the form of a table for ease of reference. The table shows, organized by combination of category and position order, which utterances tested which categories in which positions. As always, each individual utterance and its average can be found by its number in the appendix.

*(5)  Combinations of Categories and Positions Data*

| Utterance | A5 | A4 | A3 | A2 | A1 | B1 | B2 |
|---|---|---|---|---|---|---|---|
| ~S48.8 | MITIG | VOC | VOC | EVI | MITIG | | |
| *S47.11 | | EVI | EXPL | MITIG | VOC | | |
| ~S47.10 | | EVI | EXPL | VOC | MITIG | | |
| *S43.19 | | EVI | EXPL | VOC | VOC | | |
| *S47.10 | | EVI | EXPL | VOC | MITIG | | |
| *S47.11 | | EVI | EXPL | MITIG | VOC | | |
| *S47.8 | | EVI | VOC | EXPL | MITIG | | |
| *S47.8 | | EVI | VOC | EXPL | MITIG | | |
| *S47.9 | | EVI | VOC | MITIG | EXPL | | |
| *S47.9 | | EVI | VOC | MITIG | EXPL | | |
| S48.18 | | EXPL | EVI | MITIG | VOC | | |
| ~S48.19 | | EXPL | MITIG | VOC | EVI | | |
| *S48.16 | | EXPL | MITIG | VOC | EXPL | | |
| ~S48.12 | | EXPL | MITIG | VOC | MITIG | | |
| S48.2 | | EXPL | VOC | EVI | MITIG | | |
| ~S48.15 | | EXPL | VOC | EXPL | MITIG | | |
| ~S43.17 | | EXPL | VOC | VOC | EVI | | |
| *S47.3 | | EXPL | MITIG | EVI | VOC | | |
| ~S48.14 | | EXPL | VOC | MITIG | EXPL | | |
| ~S48.17 | | EXPL | EVI | EXPL | VOC | | |
| *S47.7 | | MITIG | EVI | VOC | EXPL | | |
| *S47.4 | | MITIG | EVI | VOC | EXPL | | |
| *S47.7 | | MITIG | EVI | VOC | EXPL | | |
| *S47.5 | | MITIG | EXPL | VOC | EVI | | |
| *S47.5 | | MITIG | EXPL | VOC | EVI | | |
| *S47.6 | | MITIG | VOC | EXPL | EVI | | |
| *S47.6 | | MITIG | VOC | EXPL | EVI | | |
| *S47.4 | | MITIG | EVI | VOC | EXPL | | |
| ~S48.3 | | MITIG | VOC | EVI | MITIG | | |
| ~S48.11 | | MITIG | VOC | VOC | MITIG | EVI | |
| *S48.13 | | MITIG | EXPL | MITIG | VOC | | |
| *S47.14 | | VOC | EVI | EXPL | MITIG | | |
| *S47.14 | | VOC | EVI | EXPL | MITIG | | |
| *S47.15 | | VOC | EVI | MITIG | EXPL | | |
| *S47.15 | | VOC | EVI | MITIG | EXPL | | |
| ~S47.13 | | VOC | EXPL | EVI | MITIG | | |

| Utterance | A5 | A4 | A3 | A2 | A1 | B1 | B2 |
|---|---|---|---|---|---|---|---|
| ~S47.13 | | VOC | EXPL | EVI | MITIG | | |
| *S47.12 | | VOC | EXPL | MITIG | EVI | | |
| *S47.12 | | VOC | EXPL | MITIG | EVI | | |
| ~S47.17 | | VOC | MITIG | EVI | EXPL | | |
| ~S47.17 | | VOC | MITIG | EVI | EXPL | | |
| *S47.16 | | VOC | MITIG | EXPL | EVI | | |
| *S47.16 | | VOC | MITIG | EXPL | EVI | | |
| ~S49.2 | | | EVI | EXPL | MITIG | | |
| ~S51.5 | | | EVI | EXPL | MITIG | | |
| S50.1 | | | EVI | EXPL | VOC | | |
| *S51.4 | | | EVI | EXPL | VOC | | |
| ~S41.5 | | | EVI | EXPL | VOC | | |
| ~S49.18 | | | EVI | MITIG | VOC | | |
| S47.2 | | | EVI | MITIG | MITIG | | |
| S47.2 | | | EVI | MITIG | MITIG | | |
| ~S49.17 | | | EVI | MITIG | EXPL | | |
| ~S51.3 | | | EVI | MITIG | EXPL | | |
| S51.2 | | | EVI | MITIG | VOC | | |
| ~S41.4 | | | EVI | VOC | EXPL | | |
| ~S49.9 | | | EVI | VOC | EXPL | | |
| ~S50.2 | | | EVI | VOC | EXPL | | |
| ~S51.1 | | | EVI | VOC | EXPL | | |
| S50.4 | | | EVI | VOC | MITIG | | |
| S49.19 | | | EVI | VOC | MITIG | | |
| S50.2 | | | EVI | VOC | MITIG | | |
| *S43.20 | | | EVI | VOC | VOC | EXPL | |
| S50.17 | | | EXPL | EVI | MITIG | | |
| S41.2 | | | EXPL | EVI | VOC | | |
| S50.3 | | | EXPL | EVI | VOC | | |
| S50.5 | | | EXPL | MITIG | EVI | | |
| S49.12 | | | EXPL | MITIG | VOC | | |
| ~S50.18 | | | EXPL | MITIG | EVI | | |
| S41.1 | | | EXPL | VOC | EVI | | |
| ~S49.11 | | | EXPL | VOC | EVI | | |
| S50.16 | | | EXPL | VOC | MITIG | | |
| S50.19 | | | EXPL | VOC | MITIG | | |
| S49.13 | | | EXPL | VOC | MITIG | | |
| S49.14 | | | EXPL | VOC | MITIG | | |

| Utterance | A5 | A4 | A3 | A2 | A1 | B1 | B2 |
|-----------|----|----|----|----|----|----|----|
| ~S43.9 | | | EXPL | VOC | VOC | | |
| ~S43.18 | | | EXPL | VOC | VOC | EVI | |
| *S48.3 | | | EXPL | MITIG | EVI | | |
| *S50.13 | | | MITIG | EVI | EXPL | | |
| *S50.12 | | | MITIG | EVI | VOC | | |
| ~S47.2 | | | MITIG | EVI | VOC | | |
| *S50.15 | | | MITIG | EXPL | EVI | | |
| *S50.14 | | | MITIG | EXPL | VOC | | |
| *S50.11 | | | MITIG | VOC | EVI | | |
| *S50.10 | | | MITIG | VOC | EXPL | | |
| ~S48.10 | | | MITIG | VOC | VOC | EVI | |
| S48.6 | | | MITIG | VOC | VOC | | |
| *S49.3 | | | MITIG | EVI | MITIG | | |
| *S49.7 | | | MITIG | EVI | MITIG | | |
| *S49.6 | | | MITIG | MITIG | VOC | | |
| ~S48.2 | | | MITIG | VOC | MITIG | | |
| ~S48.7 | | | MITIG | VOC | VOC | MITIG | |
| S47.18 | | | MITIG | MITIG | EVI | | |
| S47.19 | | | MITIG | MITIG | EVI | | |
| S47.19 | | | MITIG | MITIG | EVI | | |
| *S51.15 | | | MITIG | EVI | EXPL | | |
| ~S49.5 | | | MITIG | EVI | MITIG | | |
| ~S51.14 | | | MITIG | EVI | VOC | | |
| *S51.17 | | | MITIG | EXPL | EVI | | |
| ~S51.16 | | | MITIG | EXPL | VOC | | |
| S51.13 | | | MITIG | VOC | EVI | | |
| *S51.12 | | | MITIG | VOC | EXPL | | |
| ~S41.3 | | | VOC | EVI | EXPL | | |
| ~S49.10 | | | VOC | EVI | EXPL | | |
| ~S50.6 | | | VOC | EVI | EXPL | | |
| ~S51.6 | | | VOC | EVI | EXPL | | |
| S50.7 | | | VOC | EVI | MITIG | | |
| S51.7 | | | VOC | EVI | MITIG | | |
| S41.8 | | | VOC | EXPL | EVI | | |
| S49.8 | | | VOC | EXPL | EVI | | |
| ~S50.8 | | | VOC | EXPL | EVI | | |
| ~S51.8 | | | VOC | EXPL | EVI | | |
| S49.16 | | | VOC | EXPL | MITIG | | |

| Utterance | A5 | A4 | A3 | A2 | A1 | B1 | B2 |
|-----------|----|----|----|----|----|----|----|
| ~S51.9 | | | VOC | EXPL | MITIG | | |
| S50.9 | | | VOC | MITIG | EVI | | |
| ~S49.15 | | | VOC | MITIG | EXPL | | |
| S48.1 | | | VOC | MITIG | MITIG | | |
| S48.1 | | | VOC | MITIG | MITIG | | |
| S51.11 | | | VOC | MITIG | EVI | | |
| ~S51.10 | | | VOC | MITIG | EXPL | | |
| *S43.10 | | | VOC | VOC | EXPL | | |
| ~S41.19 | | | | EVI | VOC | EXPL | |
| S41.20 | | | | EVI | VOC | EXPL | |
| S46.7 | | | | EVI | VOC | | |
| S46.8 | | | | EVI | VOC | | |
| S51.2 | | | | EVI | EVI | | |
| S41.6 | | | | EXPL | EVI | VOC | |
| ~S41.16 | | | | EXPL | VOC | EVI | |
| S43.13 | | | | EXPL | VOC | VOC | |
| ~S51.18 | | | | EXPL | EXPL | | |
| S47.1 | | | | MITIG | EVI | | |
| ~S48.4 | | | | MITIG | MITIG | EVI | |
| S48.5 | | | | MITIG | MITIG | VOC | |
| ~S41.7 | | | | VOC | EVI | EXPL | |
| ~S41.18 | | | | VOC | EXPL | EVI | |
| ~S43.14 | | | | VOC | EXPL | VOC | |
| *S43.15 | | | | VOC | VOC | EXPL | |
| *S43.16 | | | | VOC | VOC | EXPL | |
| S44.1 | | | | VOC | VOC | EVI | |
| S51.19 | | | | VOC | VOC | | |
| *S43.12 | | | | | EXPL | VOC | VOC |
| S44.8 | | | | | EXPL | VOC | |
| S45.1 | | | | | EXPL | EXPL | |
| *S45.17 | | | | | EXPL | EXPL | |
| S43.11 | | | | | EXPL | VOC | VOC |
| S48.9 | | | | | MITIG | VOC | VOC |
| S44.9 | | | | | VOC | EXPL | |

*2.3 Grammatical Combinations and Positions*

While the data may be a bit overwhelming, what they do show is that, while an utterance can grammatically bear up to 4 PEs, only certain combinations are judged to be acceptable. Another table showing the combinations with at least one grammatical test utterance follow:

*(6) Grammatical Combinations and Positions - Left Edge Data*

| Utterance | A4 | A3 | A2 | A1 |
|---|---|---|---|---|
| S48.18 | EXPL | EVI | MITIG | VOC |
| ~S68.14 | EXPL | EVI | MITIG | VOC |
| S48.20 | EXPL | VOC | EVI | MITIG |
| ~S68.16 | EXPL | VOC | EVI | MITIG |
| S50.1 | | EVI | EXPL | VOC |
| ~S68.13 | | EVI | EXPL | VOC |
| S47.2 | | EVI | MITIG | MITIG |
| S64.15 | | EVI | MITIG | MITIG |
| S51.2 | | EVI | MITIG | VOC |
| S68.17 | | EVI | MITIG | VOC |
| S50.4 | | EVI | VOC | MITIG |
| S49.19 | | EVI | VOC | MITIG |
| S50.2 | | EVI | VOC | MITIG |
| S50.17 | | EXPL | VOC | MITIG |
| ~S64.17[6] | | EXPL | EVI | MITIG |
| S68.19 | | EXPL | EVI | MITIG |
| S68.20 | | EXPL | EVI | MITIG |
| S41.2 | | EXPL | EVI | VOC |
| S50.3 | | EXPL | EVI | VOC |
| S50.5 | | EXPL | MITIG | EVI |

---

[6] The difference between S64.17 and S68.20 is statistically insignificant. Therefore, this combination is considered grammatical.

| Utterance | A4 | A3 | A2 | A1 |
|-----------|----|----|----|----|
| ~S64.18[7] |  | EXPL | MITIG | EVI |
| S49.12 |  | EXPL | MITIG | VOC |
| ~S64.19[8] |  | EXPL | MITIG | VOC |
| S41.1 |  | EXPL | VOC | EVI |
| ~S49.11[9] |  | EXPL | VOC | EVI |
| ~S64.16 |  | EXPL | VOC | EVI |
| S50.16 |  | EXPL | VOC | MITIG |
| S50.19 |  | EXPL | VOC | MITIG |
| S48.6 |  | MITIG | VOC | VOC |
| S64.20 |  | MITIG | VOC | VOC |
| S48.2 |  | MITIG | VOC | MITIG |
| S65.1 |  | MITIG | VOC | MITIG |
| S47.18 |  | MITIG | MITIG | EVI |
| S47.19 |  | MITIG | MITIG | EVI |
| S51.13 |  | MITIG | VOC | EVI |
| ~S65.2[10] |  | MITIG | VOC | EVI |
| S50.7 |  | VOC | EVI | MITIG |
| S51.7 |  | VOC | EVI | MITIG |
| S41.8 |  | VOC | EXPL | EVI |
| S49.8 |  | VOC | EXPL | EVI |
| ~S50.8[11] |  | VOC | EXPL | EVI |
| ~S51.8[12] |  | VOC | EXPL | EVI |
| S49.16 |  | VOC | EXPL | MITIG |
| ~S51.9[13] |  | VOC | EXPL | MITIG |
| S50.9 |  | VOC | MITIG | EVI |
| S51.11 |  | VOC | MITIG | EVI |
| S48.1 |  | VOC | MITIG | MITIG |

---

[7] The difference between S50.5 and S64.17 has been determined to be insignificant. However, it may be useful to note that the averages were 6.4 and 7.0 – very borderline scores. However, the score of 7.0 does make this utterance technically grammatical.

[8] The difference between S49.12 and S64.19 is statistically insignificant. Therefore, this combination is considered grammatical.

[9] The difference between S41.1 and S49.11 is statistically insignificant. Therefore, this combination is considered grammatical.

[10] The difference between S51.13 and S65.2 is statistically insignificant. Therefore, this combination is considered grammatical.

[11] The differences between the four utterances testing this combination are statistically insignificant. As such, this combination is considered grammatical.

[12] The differences between the four utterances testing this combination are statistically insignificant. As such, this combination is considered grammatical.

[13] The difference between S49.16 and S51.9 is statistically insignificant. Therefore, this combination is considered grammatical.

| Utterance | A4 | A3 | A2 | A1 |
|-----------|-----|------|--------|--------|
| ~S65.4 | | VOC | MITIG | MITIG |
| *S69.11 | | VOC | MITIG | MITIG |
| ~S69.12 | | VOC | MITIG | MITIG |

### 2.3.1 Combinations with Grammatical and Statistically Inconclusive Judgments

The table above has shown that several arrangements of PEs of various types in various A1 − A4 positions and combinations are grammatical. In several of these cases, one or more utterances merited grammatical average scores, but others featuring the same combination did not fare as well. This section discusses the combinations which the data have shown to be potentially grammatical, but for which there is not entirely unanimous approval.

#### 2.3.1.1 Expletive, Evidential PE, Mitigatory PE, Vocative

The data for the combination of Expletive, Evidential PE, Mitigatory PE, Vocative, have yielded mixed results. While S48.18 is clearly grammatical, S68.14 is inconclusive:

*(7) Expletive, Evidential PE, Mitigatory PE, Vocative*

S48.18 Son of a bitch, you see, it turns out, Mary, I forgot to feed          Average: 7.6
    your fish.
S68.14 Fuck, you see, apparently, Katie, I can't find my keys.          Average: 5.3

The intonations of the two utterances seem to be very similar as well:

(i)    S48.18 Son of a bitch, you see, it turns out, Mary, I forgot to     Average: 7.6
       feed your fish.
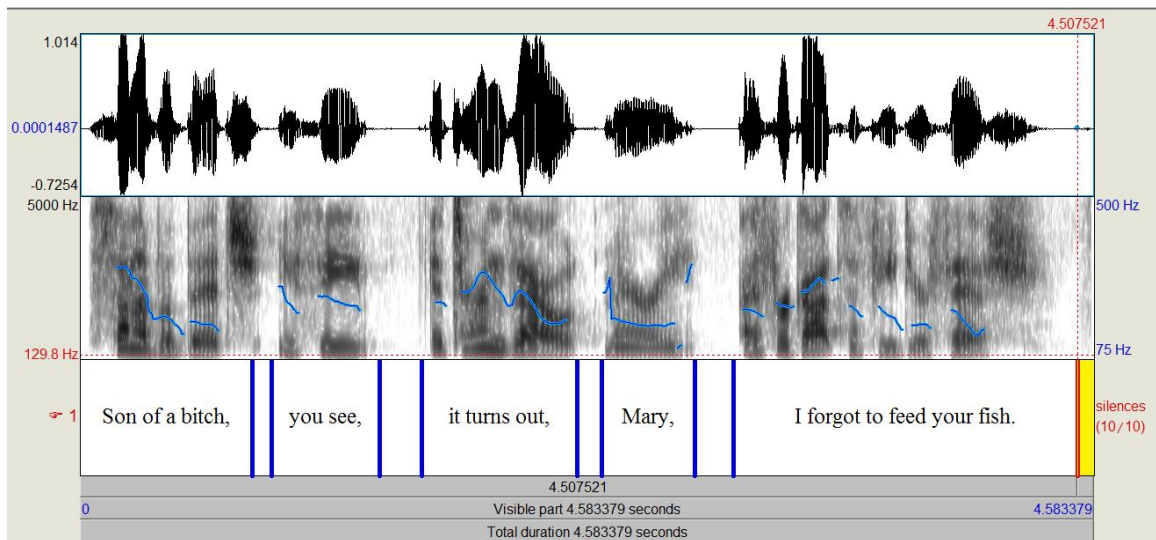


*(ii)*    S68.14 Fuck, you see, apparently, Katie, I can't find my keys.   Average: 5.3
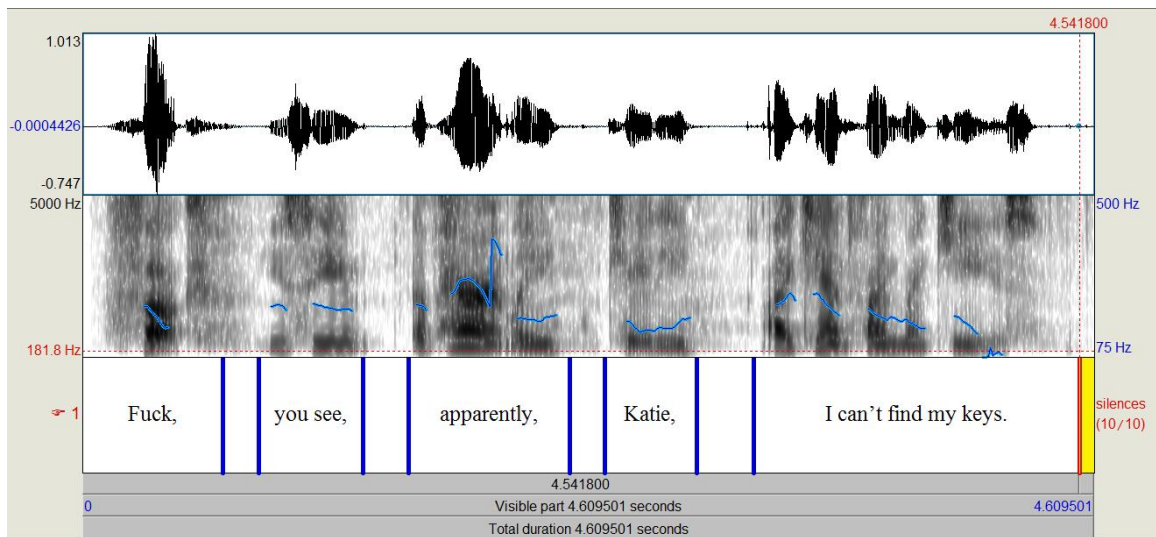


Even the pause lengths are largely comparable – differing by 0.079 seconds at most:

*(iii)      Pause Length Comparisons*

| | EXPL | Pause | EVI | Pause | MITIG | Pause | VOC | Pause | HOST |
|---|---|---|---|---|---|---|---|---|---|
| S48.18 | | 0.087 sec. | | 0.190 sec. | | 0.111 sec. | | 0.170 sec. | |
| S68.14 | | 0.166 sec. | | 0.208 sec. | | 0.160 sec. | | 0.259 sec. | |

Given these facts, it is possible that the combinations of the individual PEs used in S68.14 are less grammatical than those in S48.18. Only future investigation can determine what variable is responsible for the statistically significant difference shown by the data.

### 2.3.1.2 Expletive, Vocative, Evidential PE, Mitigatory PE

The data show statistically significantly differing results when it comes to this combination of parentheticals at the left edge.

*(8) Expletive, Vocative, Evidential PE, Mitigatory PE*

S48.20 Son of a bitch, Mary, you see, it turns out, I forgot to feed      Average: 8.2
   your fish.
S68.16 Fuck, Katie, you see, apparently, I lost my keys.            Average: 5.5

The first possibility raised by the data from the suprasegmental level is the slight difference in the intonation in the Evidential PE's. S48.20's "you see" ends with a rising pitch, whereas S68.16's ends with a falling one:

(i)       S48.20 Son of a bitch, Mary, you see, it turns out, I forgot to    Average: 8.2
feed your fish.
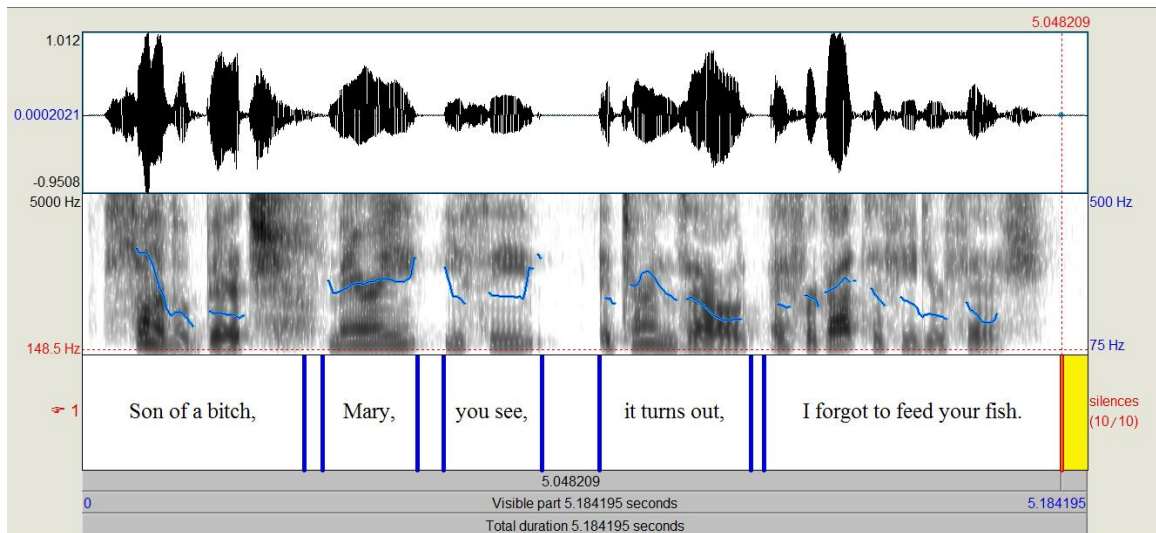


(ii)     S68.16 Fuck, Katie, you see, apparently, I lost my keys.     Average: 5.5
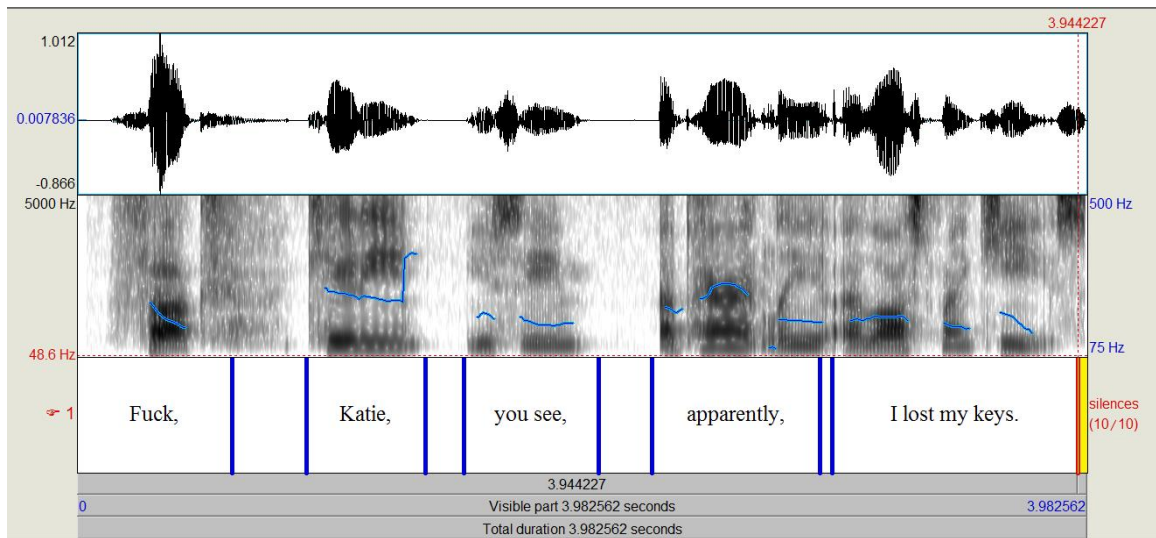


On the other hand, the pause lengths may also be considered.

*(iii)     Pause Length Comparisons*

|        | EXPL | Pause | VOC | Pause | EVI | Pause | MITIG | Pause | HOST |
|--------|------|-------|-----|-------|-----|-------|-------|-------|------|
| S48.20 |      | 0.095 sec. |  | 0.134 sec. |  | 0.294 sec. |  | 0.065 sec. |  |
| S68.16 |      | 0.293 sec. |  | 0.152 sec. |  | 0.210 sec. |  | 0.480 sec. |  |

With the present data, the reason for the variation in grammaticality scores is obscured. It

could be related to intonation, pause length, the specific individual PEs chosen, or another

factor yet unknown. This is an interesting question for future scholars to investigate.

## 2.3.1.3 Vocative, Mitigatory PE, Mitigatory PE

The data for this arrangement of PEs at the left edge are varied with one

grammatical average, one ungrammatical average, and two inconclusive averages:

*(9) Vocative, Mitigatory PE, Mitigatory PE*

S48.1 Steve, incidentally, it turns out, Susan hated that cat.              Average: 7.2
S69.12 Susan, it turns out, incidentally, John has a cat.                   Average: 6.4
S65.4 Katie, apparently, it turns out, Karen is working late.              Average: 5.5
S69.11 John, apparently, by the way, Karen is moving.                      Average: 4.9

Interestingly, whatever is underlying these differences in grammaticality judgments does

not seem to be based in intonation. While it can be argued that the ending pitch for

"incidentally" in S48.1 is higher than the other Mitigatory PEs in that position, S69.12's

"incidentally" has comparable intonation, though it is in a different location in the

arrangement of PEs. Otherwise, all four utterances seem to have very similar intonation:

(i)    S48.1 Steve, incidentally, it turns out, Susan hated that cat.    Average: 7.2
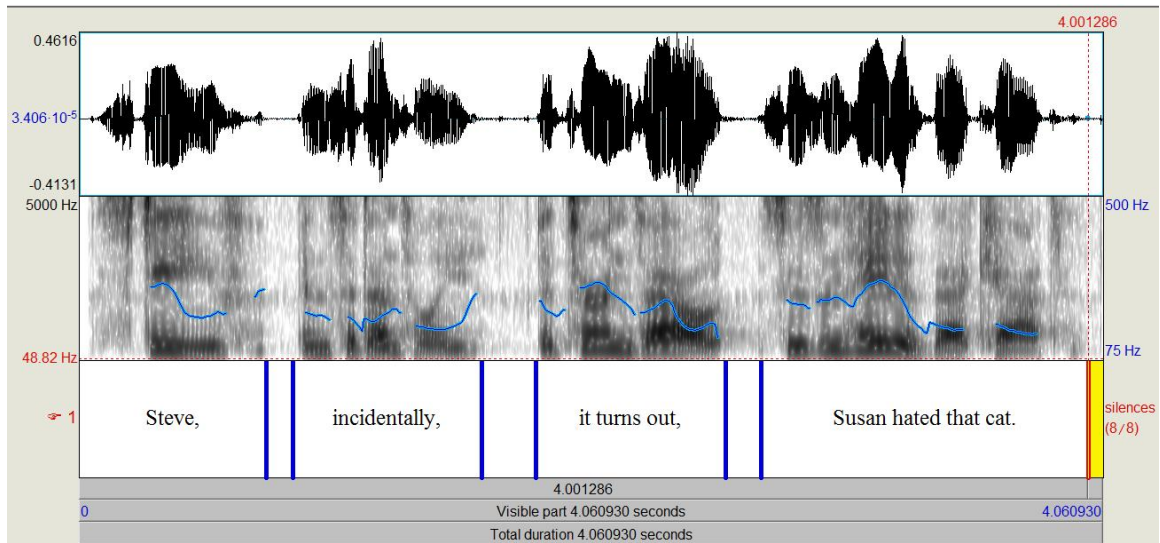


(ii)    S69.12 Susan, it turns out, incidentally, John has a cat.    Average: 6.4
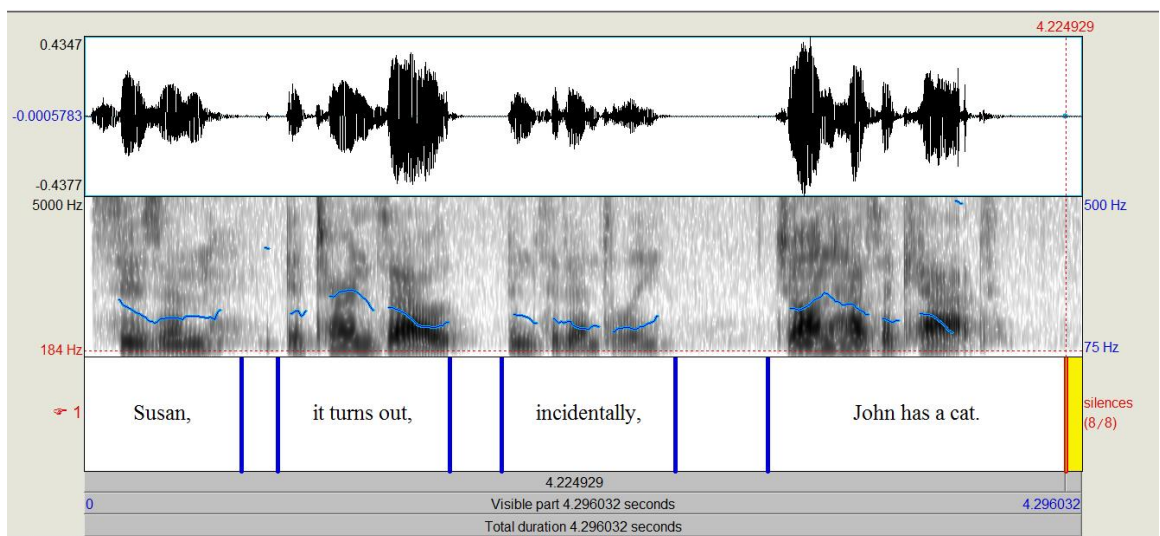
(iii)    S65.4 Katie, apparently, it turns out, Karen is working late.        Average: 5.5
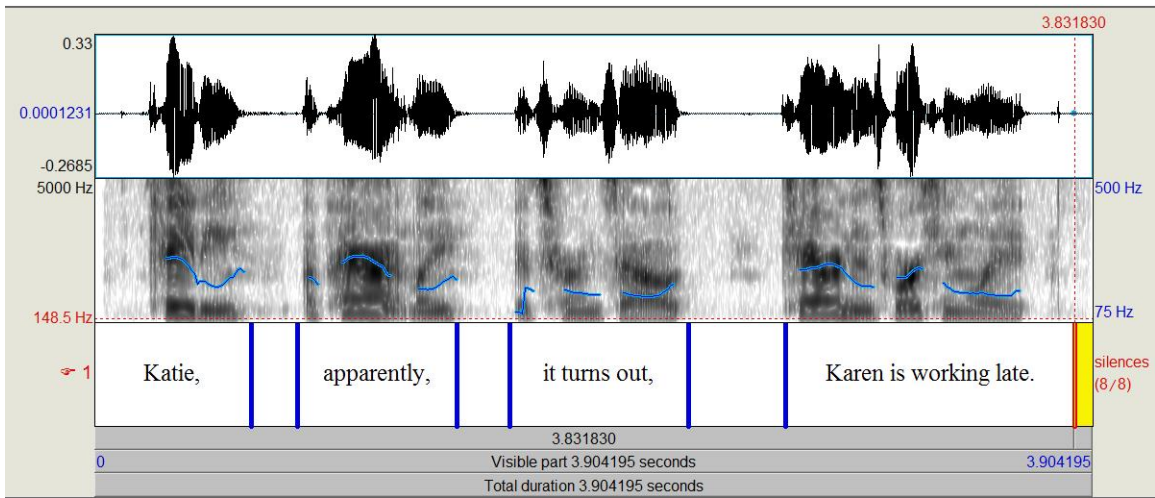


(iv)    S69.11 John, apparently, by the way, Karen is moving.        Average: 4.9
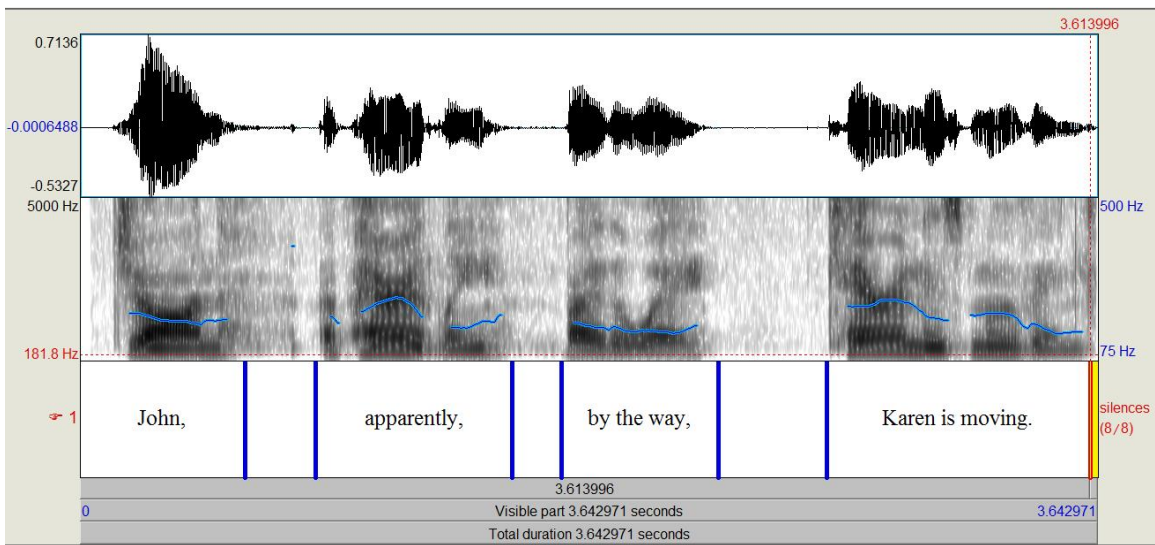


Pause length was also investigated:

*(v)*     *Pause Length Comparisons*

|        | VOC | Pause       | MITIG | Pause       | MITIG | Pause       | HOST |
|--------|-----|-------------|-------|-------------|-------|-------------|------|
| S48.1  |     | 0.106 sec.  |       | 0.215 sec.  |       | 0.140 sec.  |      |
| S69.12 |     | 0.156 sec.  |       | 0.223 sec.  |       | 0.396 sec.  |      |
| S65.4  |     | 0.180 sec.  |       | 0.205 sec.  |       | 0.379 sec.  |      |
| S69.11 |     | 0.252 sec.  |       | 0.175 sec.  |       | 0.389 sec.  |      |

There are a few discernable differences in pause length, but whether or not those differences which amount to 0.249 seconds at most are to blame for the range of grammaticality observed in the data is difficult to say with certainty given the number of other variables in play (e.g. the preferences of each of the individual PEs and the combinations thereof). What the data do show, however, is that the utterance with the highest score has the shortest pauses and the lowest rated has the longest pauses. Whether this is causative, correlation, or coincidence remains to be investigated more explicitly. For now, the data suggest that future study may be required to understand what exactly is the factor underlying the changes in comparative grammaticality for this combination of PEs.

### 2.3.2   Expletives on the Edge – the Cases of 4 PEs

The data have shown that there are several different arrangements of PEs at the left edge which can be grammatical under certain circumstances. The bulk of these involve 3 or fewer PEs. It is of interest to note that the only cases in which the presence of 4 or more parentheticals is grammatical begin with an expletive:

*(10)    4 PEs at the Left Edge*

   *a.   Expletive Evidential Mitigatory Vocative*

S48.18 Son of a bitch, you see, it turns out, Mary, I forgot to feed      Average: 7.6
    your fish.
S70.11 Shit, you know, as it turns out, Karen, your car was stolen.      Average: 6.7
S68.14 Fuck, you see, apparently, Katie, I can't find my keys.      Average: 5.3


While the difference between S48.18 and S70.11 is statistically insignificant, the difference between S68.14 and S48.18 is not. The grammaticality of S48.18 (and, according to the T-Test, S70.11) shows that this combination is potentially grammatical. Given that, the inconclusive S68.14 is curious. For this reason, the intonations were examined.


   (i)    S48.18 Son of a bitch, you see, it turns out, Mary, I forgot to      Average: 7.6
        feed your fish.
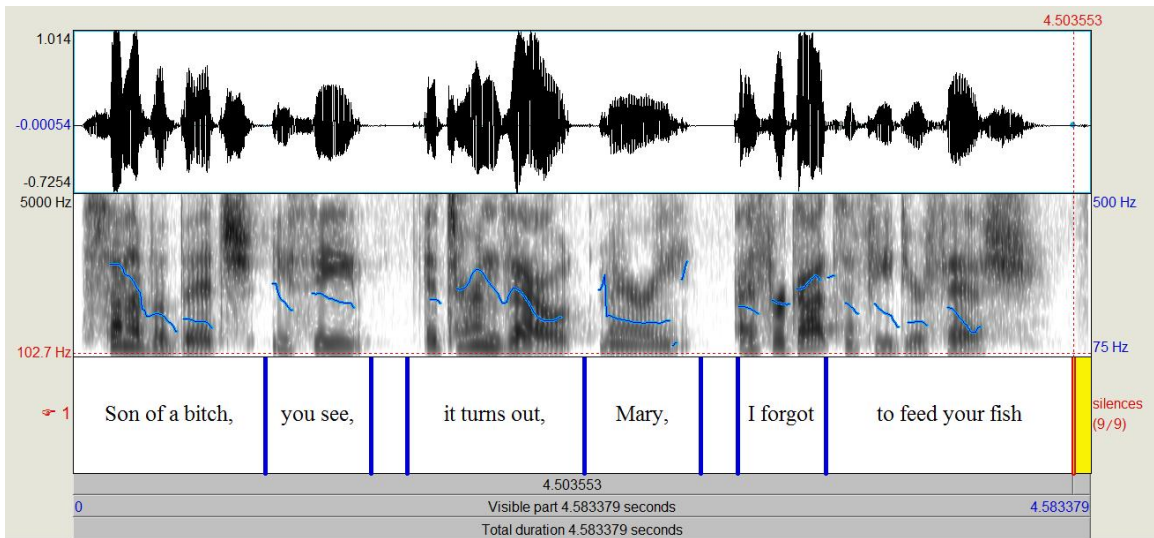
(ii)     S70.11 Shit, you know, as it turns out, Karen, your car          Average: 6.7
         was stolen.
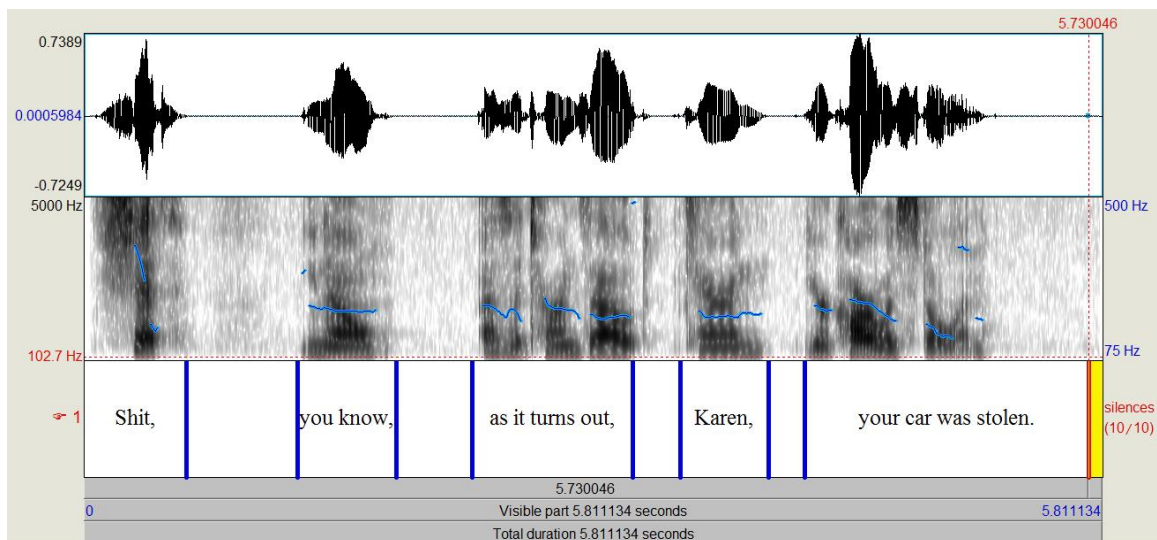


(iii)    S68.14 Fuck, you see, apparently, Katie, I can't find my keys.   Average: 5.3
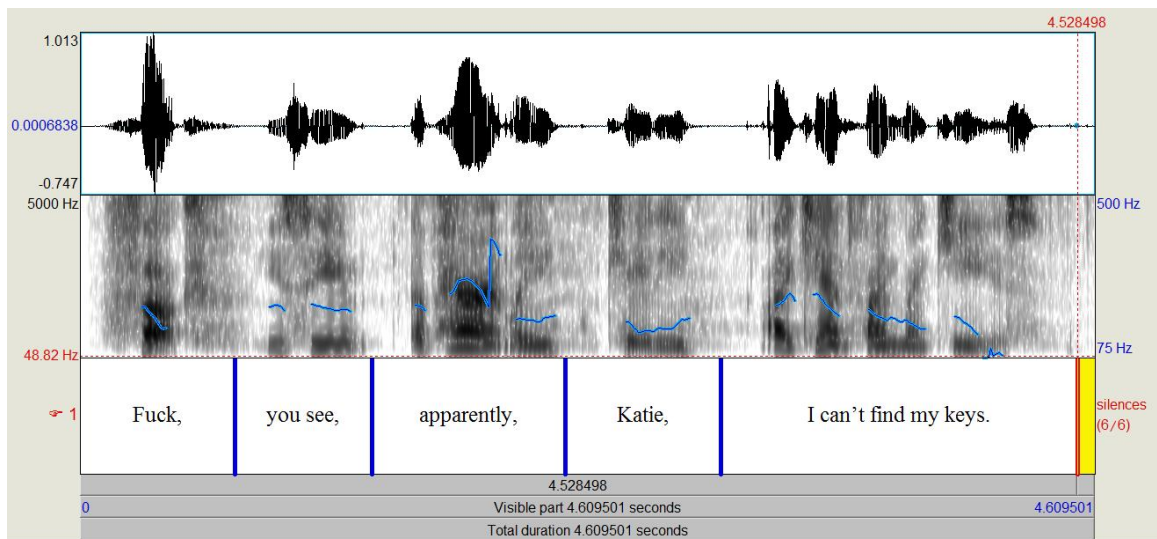


An investigation into the suprasegmental level shows that while the intonation across all of these utterances is similar in general, S68.14 does show one anomaly – the second syllable in its Mitigatory PE, "apparently", has a higher pitch than the rest of the utterance. It is possible that this is the reason for the comparatively lower grammaticality

score, but additional research would be required to propose this as the cause with confidence. What is clear is that this combination of PEs is possible at the right edge.

### b. *Expletive Vocative Evidential Mitigatory*

| | |
|---|---|
| S48.20 Son of a bitch, Mary, you see, it turns out, I forgot to feed your fish. | Average: 8.2 |
| S70.12 Shit, Karen, you know, as it turns out, your car was stolen. | Average: 6.8 |
| S68.16 Fuck, Katie, you see, apparently, I lost my keys. | Average: 5.5 |

Given the conclusively grammatical S48.20 and the borderline inconclusive/grammatical S70.12, the clearly inconclusive S68.16 is notable. While the first utterances show this arrangement of PEs to be grammatical, the last raises questions. These questions may be answered by the confound of prosody as it relates to the Vocative in the sequence.

(i)     S48.20 Son of a bitch, Mary, you see, it turns out, I forgot to     Average: 8.2
feed your fish.
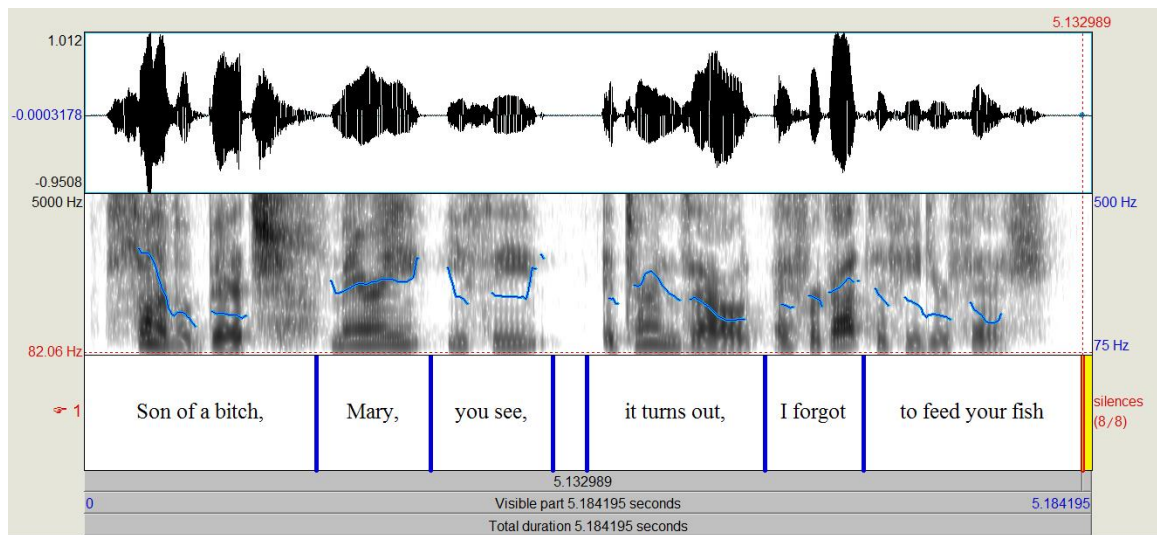
(ii)    S70.12 Shit, Karen, you know, as it turns out, your car          Average: 6.8
          was stolen.
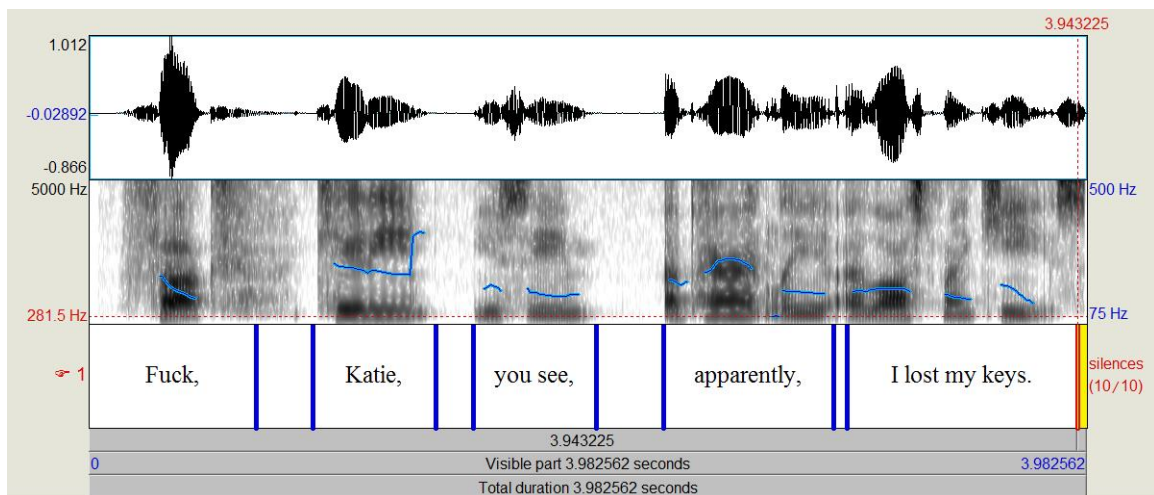


(iii)    S68.16 Fuck, Katie, you see, apparently, I lost my keys.          Average: 5.5
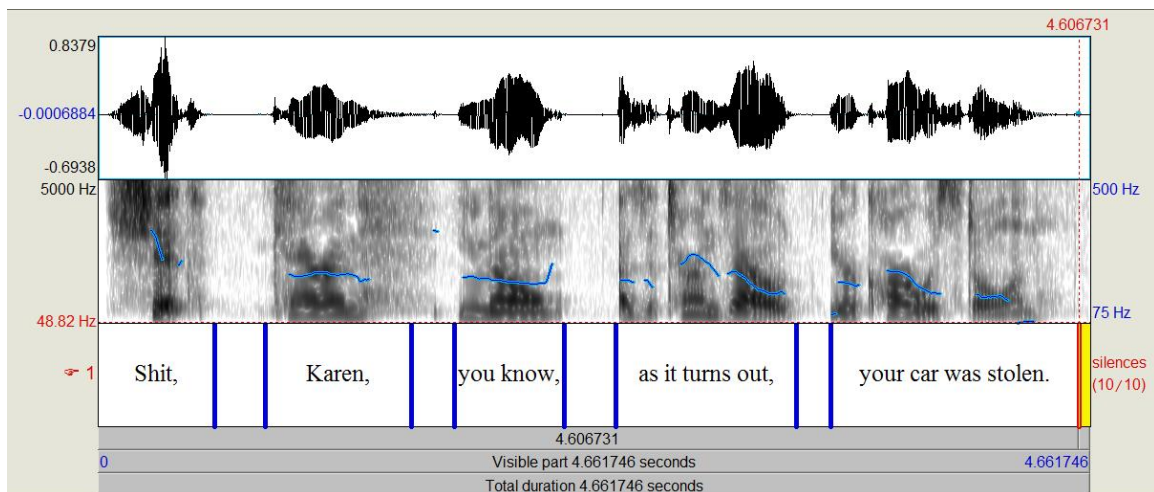


The Vocatives in S48.20 and S70.12 both have rising intonation, but S68.16 has a flat or even lowering intonation. Whether or not this is related to the inconclusivity of one form where the others meet with grammatical or near grammatical results would require further investigation to determine. For now, it can be said that this combination is potentially grammatical.

### c. Left Edge Expletives – Attached or Single?

While the data have shown that at least two combinations of 4 PEs are permitted at the left edge, it is notable that the combinations following that Expletive, (i.e. Evidential PE, Mitigatory PE, Vocative and Vocative, Evidential PE, Mitigatory PE) have been proven grammatical at the left edge as well.

*(8) To Expletive or not to Expletive*

### a. Evidential PE, Mitigatory PE, Vocative

| | |
|---|---|
| S51.2 You see, it turns out, Karen, Fred quit his job. | Average: 8.6 |
| S64.16 You see, it turns out, George, I overslept. | Average: 7.7 |

### b. Vocative, Evidential PE, Mitigatory PE

| | |
|---|---|
| S50.7 Steve, you know, apparently, Amanda hates chicken. | Average: 7.4 |
| S51.7 Karen, you see, it turns out, Fred quit his job. | Average: 8.2 |

Essentially, the data show that the patterns of grammaticality (i.e. whether a combination is grammatical or ungrammatical) for positions A1 through A3 remain true even when an expletive is tacked on at A4. On the one hand, this is reasonable – if the combination of the three PEs closest to the tree is already unacceptable, tacking on an expletive would certainly not be expected to resolve the issue. On the other hand, this may suggest that the expletive is either curiously singular in its ability to do this or being parsed as a separate utterance from the host clause (complete with its three PE adjuncts at the left edge).

*(9) Patterns of Grammaticality*

| Utterance | A4 | A3 | A2 | A1 | Grammatical? |
|---|---|---|---|---|---|
| S48.18 | EXPL | EVI | MITIG | VOC | Yes |
| S51.2 | | EVI | MITIG | VOC | Yes |
| S64.16 | | EVI | MITIG | VOC | Yes |
| ~S48.19 | EXPL | MITIG | VOC | EVI | Yes |
| S51.13 | | MITIG | VOC | EVI | Yes |
| ~S65.2[14] | | MITIG | VOC | EVI | Yes |
| *S48.16 | EXPL | MITIG | VOC | EXPL | No |
| *S51.12 | | MITIG | VOC | EXPL | No |
| ~S48.12[15] | EXPL | MITIG | VOC | MITIG | Yes |
| S48.2 | | MITIG | VOC | MITIG | Yes |
| S65.1 | | MITIG | VOC | MITIG | Yes |
| S48.2 | EXPL | VOC | EVI | MITIG | Yes |
| S50.7 | | VOC | EVI | MITIG | Yes |
| S51.7 | | VOC | EVI | MITIG | Yes |
| ~S48.15 | EXPL | VOC | EXPL | MITIG | Yes |
| S49.16 | | VOC | EXPL | MITIG | Yes |
| ~S51.9[16] | | VOC | EXPL | MITIG | Yes |
| ~S43.17 | EXPL | VOC | VOC | EVI | Yes |
| S70.13 | | VOC | VOC | EVI | Yes |
| S70.14 | | VOC | VOC | EVI | Yes |
| ~S47.3 | EXPL | MITIG | EVI | VOC | Inconclusive |
| ~S51.14 | | MITIG | EVI | VOC | Inconclusive |
| ~S70.15 | | MITIG | EVI | VOC | Inconclusive |
| ~S48.14 | EXPL | VOC | MITIG | EXPL | Inconclusive |
| ~S49.15 | | VOC | MITIG | EXPL | Inconclusive |
| ~S70.16 | | VOC | MITIG | EXPL | Inconclusive |
| ~S48.17 | EXPL | EVI | EXPL | VOC | Yes |
| S50.1 | | EVI | EXPL | VOC | Yes |
| ~S70.17 | | EVI | EXPL | VOC | Yes |

---

[14] The difference between S51.13 and S65.2 is statistically insignificant. Therefore, this combination is considered grammatical.

[15] In this particular case, the combination may simply be impractical from a pragmatic standpoint given the usage of the chosen PEs. In the words of a comment made by one of the subjects: "'It turns out' is the worst part of this sentence. There are too many words tacked on to the main thought. You wouldn't use profanity and then add 'it turns out'." Future study may be warranted.

[16] The difference between S49.16 and S51.9 is statistically insignificant. Therefore, this combination is considered grammatical.

Stacking of PEs may be limited by processing constraints, similar to the way that humans can only easily process 3 layers of embedding according to Shuy (1998). If there is too much complexity, the meaning gets lost and that is exactly what parentheticals are meant to assist with – interpretation of the proposition. Why Expletives are somehow better enabled to tack on in A4 than the other categories is something for future scholars to investigate.

### 2.3.3   Other Potentially Grammatical Combinations

Other combinations which were not limited to the left edge yielded data which have suggested they are potentially grammatical arrangements, but more research is required to investigate these possibilities thoroughly. The potentially grammatical combinations are listed here to pique interest in potential future study.

| Utterance | A2 | A1 | __ CP[C | B1 | B2 |
|---|---|---|---|---|---|
| S51.2 | EVI | EVI | | | |
| S41.6 | EXPL | EVI | | VOC | |
| S43.13 | EXPL | VOC | | VOC | |
| S47.1 | MITIG | EVI | | | |
| S48.5 | MITIG | MITIG | | VOC | |
| S44.1 | VOC | VOC | | EVI | |
| S51.19 | VOC | VOC | | | |
| S44.8 | | EXPL | | VOC | |
| S45.1 | | EXPL | | EXPL | |
| S43.11 | | EXPL | | VOC | VOC |
| S48.9 | | MITIG | | VOC | VOC |
| S44.9 | | VOC | | EXPL | |
| S43.2 | | EXPL | VOC | | |

## 3 Conclusions

In summary, this work has only touched the surface of the possibilities that multiple parenthetical occurrences can provide. However, it has proven that their presence within the same utterance is possible, if only in a few select combinations. This fact merits further study into the potentially grammatical combinations of PEs which can occur in the same utterance; at the left edge as well as other possible positions. An exploration of not only which categories may appear in combination in various orders, but also a deeper investigation of which individual PEs from those categories may grammatically do so would be able to yield greater insights. I expect that further research will show that the grammatical combinations of PEs and positions will reflect the patterns and tendencies of each individual PE utilized as they have been determined in this work. For example, Expletive insertion may be met with difficulty utterance-internally, that the positions such after the first subject and before the Complementizer of an embedded clause will be likely suspects for grammatical PE insertion, and that such insertions will be bound by the same restrictions as the PE finds alone (e.g. the inability to follow dummy subjects, etc.). Future research be needed to corroborate these speculations. For now, this work has yielded data which constitute a modest, introductory inquiry into the subject and represents a basic analysis which provides areas for future research.

# 8.  CONCLUSIONS

## 1 The Data

The data have shown that each of the types of PEs studied are grammatical in at least one position: the left edge. Beyond this, each category has its own patterns of behavior as to which positions they may grammatically occur. While certain complex structures and movement processes may affect the grammaticality of a particular PE category's presence in a certain position, there are a few positions which are generally more likely to be grammatical than the rest. These positions are, in decreasing order of likelihood, the left edge, the right edge, after the first (i.e. highest) subject, and before the Complementizer of an embedded clause[1].

Many of the positions tested, due to the linearity of speech and pronunciation order, are opaque as it comes to the details of their position within the syntactic tree. For example, it can be hard to say if the position following the first subject is right-adjoining to that subject or left-adjoining to T'[2]. In an effort towards maintaining clarity, dashed lines are

---

[1] Preceding the Complementizer of an embedded CP is also a left edge, so this position is not surprising in its general acceptability.

[2] In fact, the only case which has clear indications as to which object the PE adjoins is the case of a Mitigatory PE which met with a grammatical judgment between a Verb and the omitted Complementizer (and omitted subject) of the Verb's CP Complement. This is indicated by the fact that all other positions following the verb met with ungrammatical judgments whereas appearing before a CP is allowed. This suggests that in the grammatical test sentence, the PE is not R-adjoining to the Verb (which is ungrammatical elsewhere), but L-adjoining to the CP (which is grammatical elsewhere). For a detailed discussion of these data, see Chapter 4: Mitigatory PEs, Section 4.5 Auxiliary Chains.

used in these cases to indicate that the precise adjunction point between two known (i.e. pronounced) adjacent objects is unknown.

*1.1 Vocatives*

*1.1.1.1 Internal Structure*

In summary, the data suggest that Vocative DPs may be of three structures – simple DP, DA*N, and DP with PP – which are judged to be grammatical Vocatives across American English dialects.

1. Simple DP

```
            DP
            |
            D'
           /  \
          D    NP
        Katie   |
                N'
                |
                N
              Katie
```

2. DA*N

```
                    DP
                    |
                    D'
                   /  \
              D          NP
             you          \
                           N'
                          /  \
                      AP        NP
                      |          |
                      A          N'
                   charming      |
                                 N
                                man
```

3. DP with PP

```
                DP
                |
                D'
               /  \
          D        NP
         you      /  \
              NP        PP
              |          |
              N'         P'
              |         /  \
              N       P        DP
             you      in        |
                                D'
                               /  \
                           D        NP
                          the        |
                                     N'
                                     |
                                     N
                                    back
```
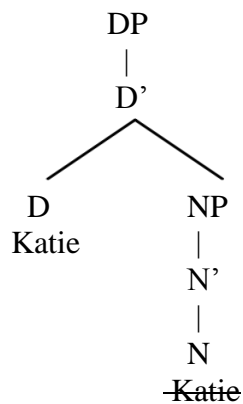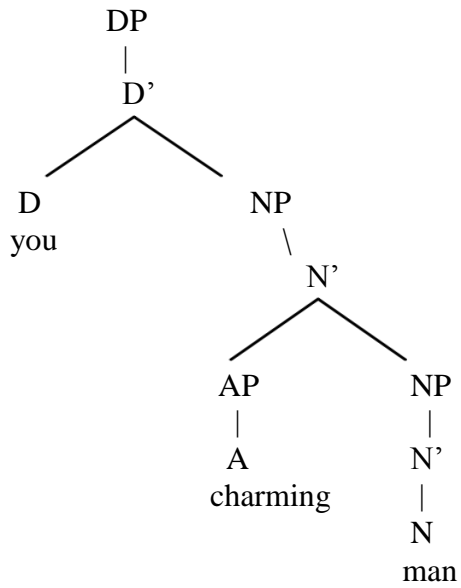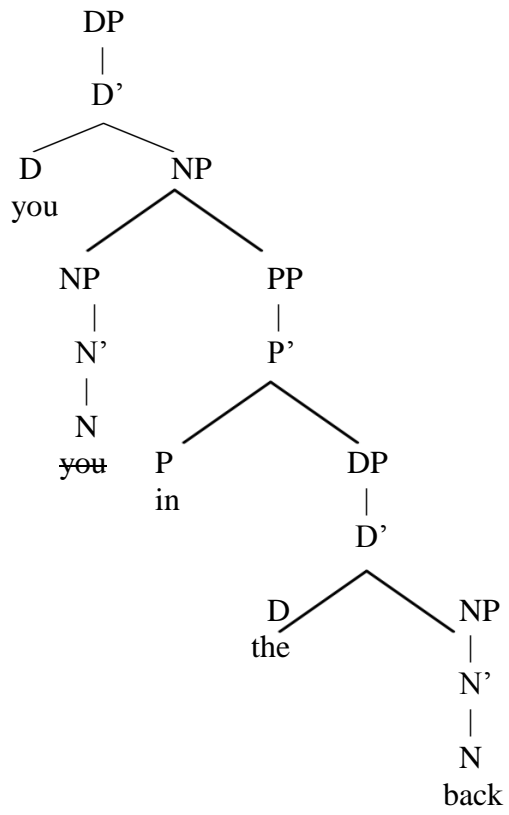
### *1.1.2 Grammatical Interpolation Points*

As for the syntactic positions, Vocative expressions appear to be universally acceptable in three positions: at the left and right edges, as long as nothing is already in said position, as well as after the first subject of the highest TP. Other positions are grammatical, but may be subject to additional restrictions or mixed data.

1. The Left Edge
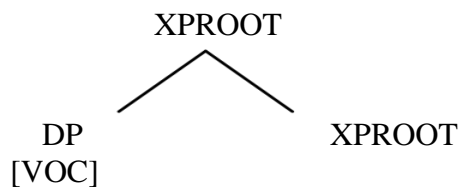
```
            XPROOT
            /    \
         DP        XPROOT
        [VOC]
```

This position remains grammatical even when most complex structures are present. However, the left edge has received ungrammatical, inconclusive, and borderline grammatical scores when CP Subject formation is also present in the utterance (see Chapter 3: Vocatives, Section 3.3).

2. The Right Edge

```
            XPROOT
            /    \
       XPROOT      DP
                  [VOC]
```

3.  After the first subject

TPROOT

{DP, CP}        DP          T'
                [VOC]
                        T       VP

Because the utterance would be pronounced identically whether the Vocative DP right-adjoins to the subject DP or left-adjoins to T', with the present data, it cannot be determined how exactly the Vocative attaches in these cases. However, it is clear that the DP may occur immediately after the first subject unless that subject is a coordinated DP, at which point it is inconclusive at best. Vocatives following fronted CP Subjects are permitted, but come with more variability of acceptance rates.

4. In a PP Chain

TP
├─ TP
│  ├─ DP
│  └─ T'
│     ├─ T
│     └─ VP
│        ├─ VP
│        │  ├─ VP
│        │  │  ├─ VP
│        │  │  │  ├─ VP
│        │  │  │  │  └─ V'
│        │  │  │  │     ├─ V
│        │  │  │  │     └─ (DP)
│        │  │  │  ├─ PP
│        │  │  │  └─ DP [VOC]
│        │  │  └─ PP
│        │  └─ DP [VOC]
│        └─ PP
└─ DP [VOC]

The data have shown Vocative DPs to be grammatical at any of these points –
between the first and second PPs in a PP chain, between the 2nd and 3rd PPs, or at the
right edge following a PP chain. Research into whether or not Vocatives can appear in
more than one of these points in the same utterance has yet to be undertaken.

5. Before a Coordinator of Coordinated VPs
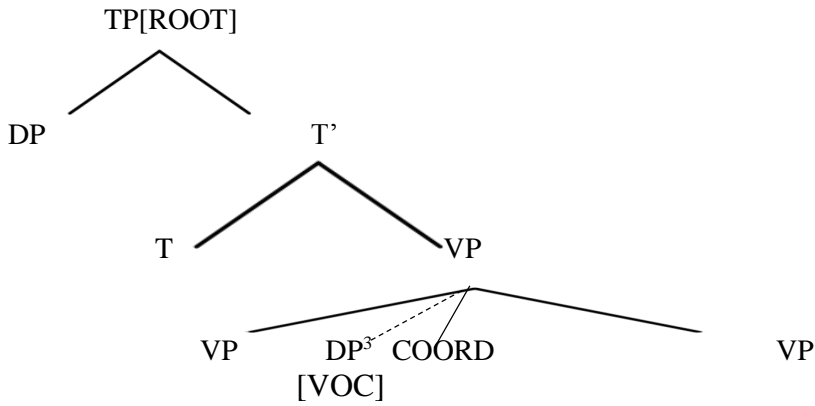


6. Before a Coordinator of Coordinated TPs
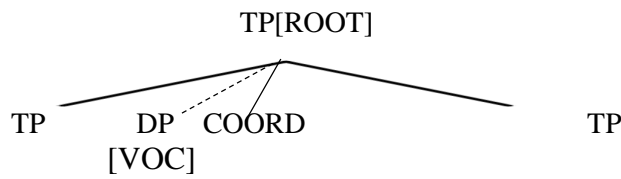


7. Before an Embedded CP with an Overt C



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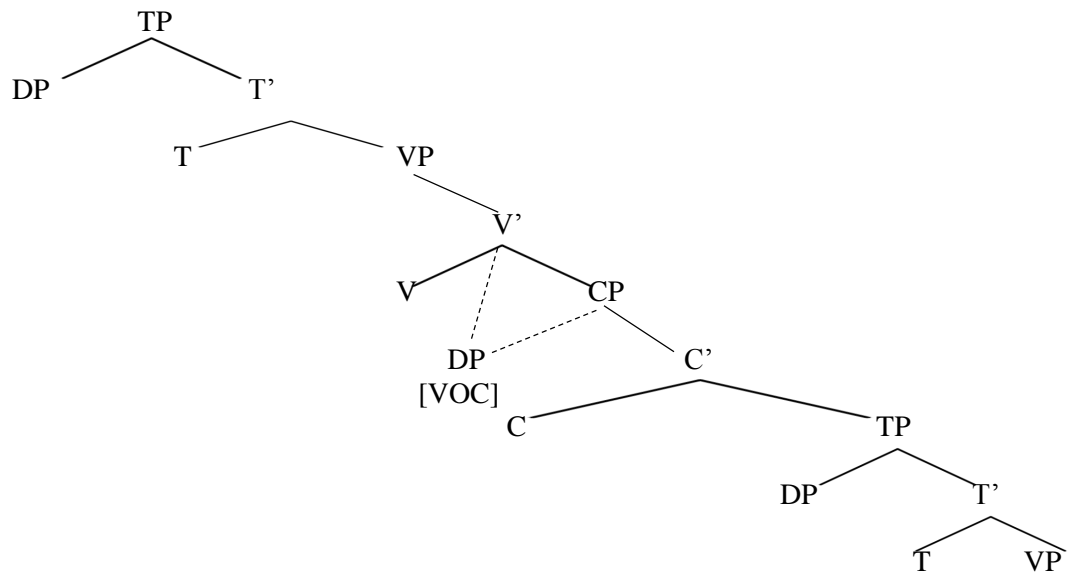
[3] Again, this representation illustrates that I am not sure whether the Vocative Right-adjoins to TP or Left-adjoins to the coordinator, not an additional violation of Binarity.

All other positions are subject to variation depending on the type of Vocative and other factors such as interactions with other objects and processes.

*1.2 Mitigatory PEs*

The data show that Mitigatory PEs are grammatical in several positions:

1. The Left-Edge

$$
\begin{array}{c}
\text{XPROOT} \\
\diagup \diagdown \\
\text{YP} \qquad \text{XPROOT} \\
\text{[MITIG]}
\end{array}
$$

2. The Right-Edge

$$
\begin{array}{c}
\text{XPROOT} \\
\diagup \diagdown \\
\text{XPROOT} \qquad \text{YP} \\
\text{[MITIG]}
\end{array}
$$
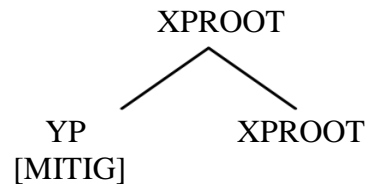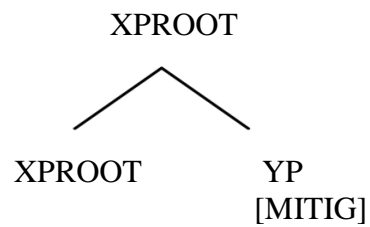
The right edge is always grammatical for Mitigatory PEs, unless the host has an embedded CP.

3.  After the first subject

```
                         TPROOT


          {DP, CP}        XP              T'
                         [MITIG]
                                      T          VP
```
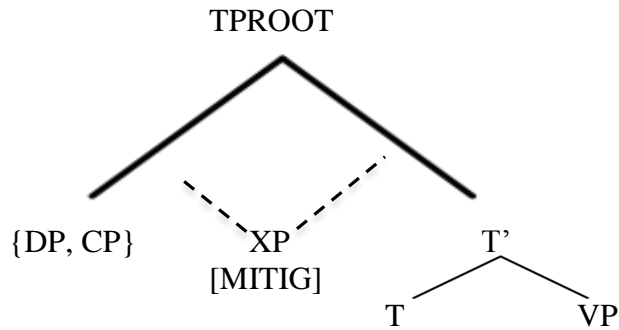
Mitigatory PEs may occur immediately after the first subject, so long as it is not a dummy subject. Other unconventional subjects such as coordinated DPs and CP subjects do not affect the grammaticality of this position.

4.  Before an Overt Complementizer of an Embedded CP
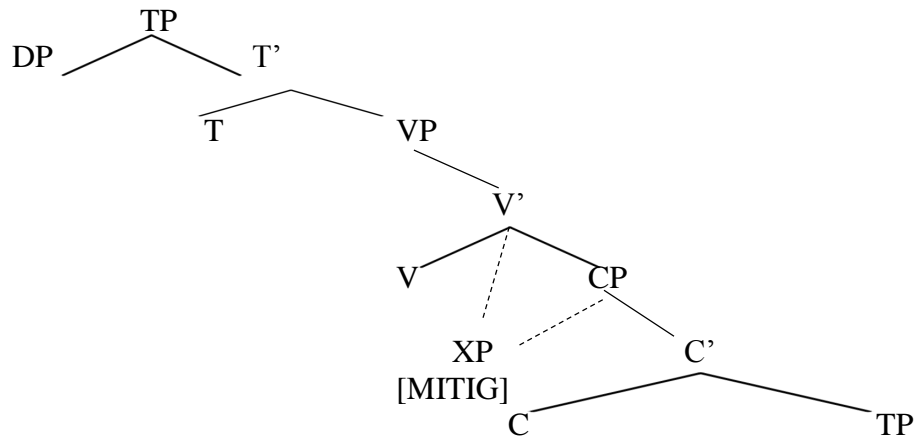
```
              TP
     DP             T'
               T         VP
                               V'
                        V          CP
                      XP              C'
                    [MITIG]
                              C              TP
```

5. Between the 1st and 2nd Auxiliary Verbs in an Aux Chain

```
                        TP
              ┌─────────┴─────────┐
             DP                   T'
                           ┌──────┴──────┐
                           T             VP
                         [AUX]      ┌─────┴──────┐
                                    ┊            VP
                                   XP       ┌────┴─────┐
                                 [MITIG]   AUX         VP
                                                       │
                                                       V'
                                                  ┌────┴────┐
                                                 AUX        VP
```
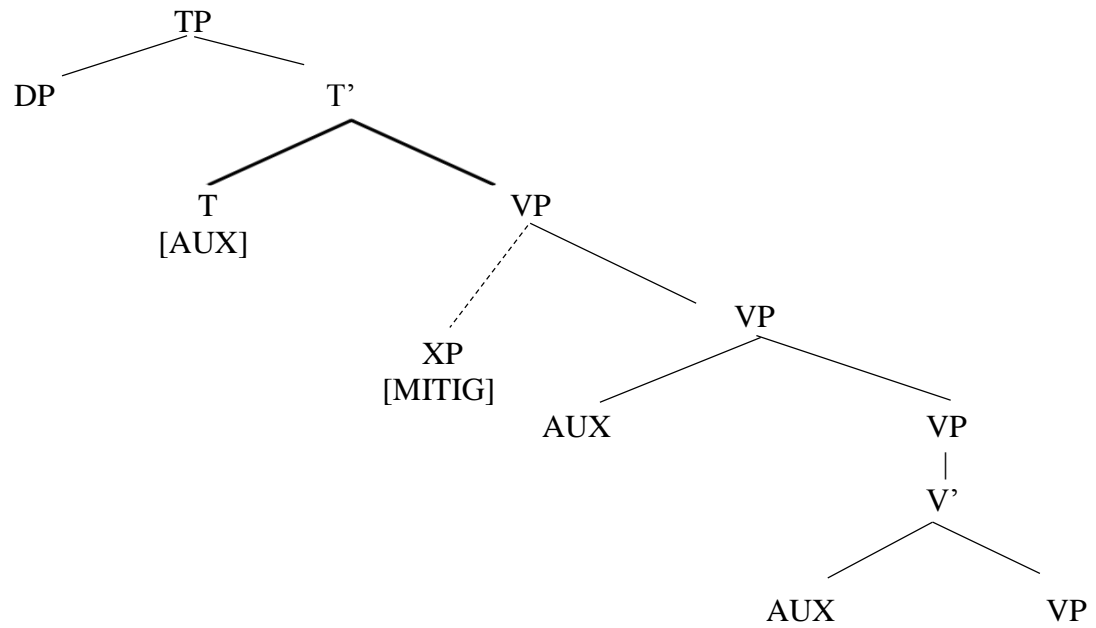
6.   Between the 2<sup>nd</sup> and 3<sup>rd</sup> PPs in a PP Chain
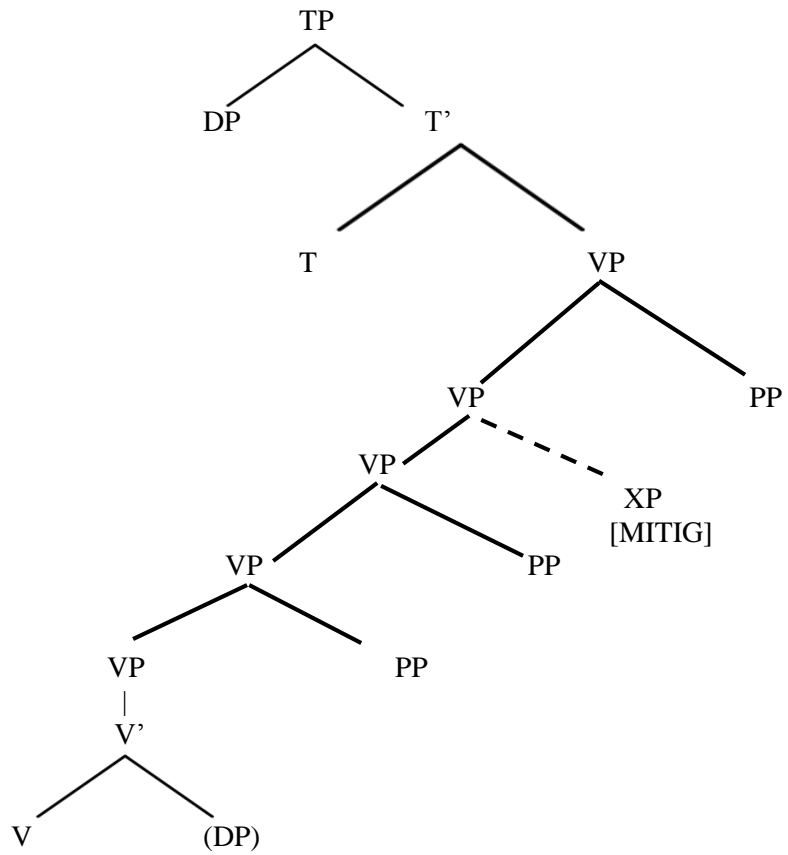


7.   Before the Coordinator of a Coordinated VP

8. After the Coordinator of a Coordinated VP
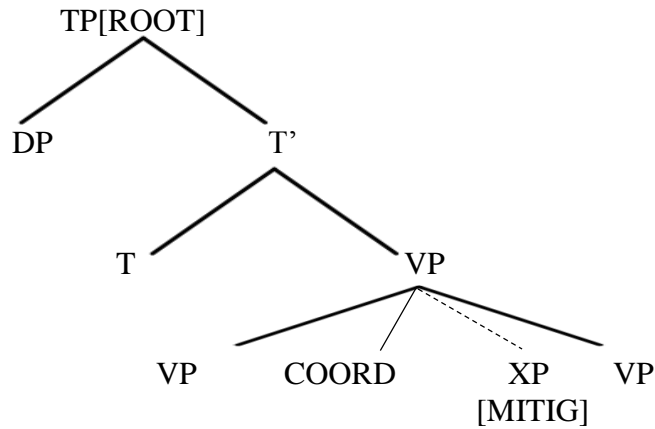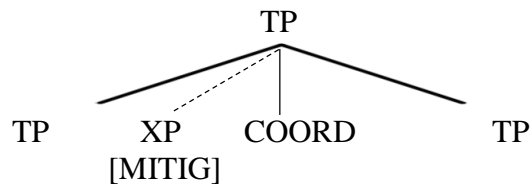
```
              TP[ROOT]
             /        \
           DP          T'
                      /  \
                    T      VP
                          /|\ \
                        VP COORD XP  VP
                                [MITIG]
```

9. Before the Coordinator of a Coordinated TP

```
                 TP
               / | \
             TP  XP  COORD    TP
             [MITIG]
```

10. After the Coordinator of a Coordinated TP

```
                 TP
               / | \
             TP  COORD XP    TP
                      [MITIG]
```
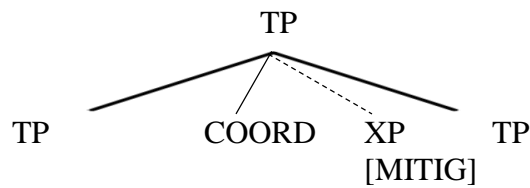
All other positions are subject to variation depending on the type of Mitigatory PE and other factors such as interactions with other objects and processes.

*1.3 Evidential PEs*

Evidential PEs take the form of TPs and are grammatical in numerous positions within the host utterance.

1. The Left-Edge

```
            XPROOT
           /      \
        TP          XPROOT
       [EVI]
```

2. The Right-Edge

```
            XPROOT
           /      \
      XPROOT        TP
                   [EVI]
```

3. After the first subject

```
               TPROOT
             /   ┊    \
      {DP, CP}   TP      T'
                [EVI]   /   \
                       T     VP
```
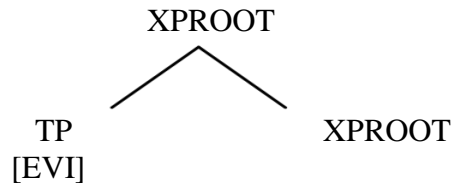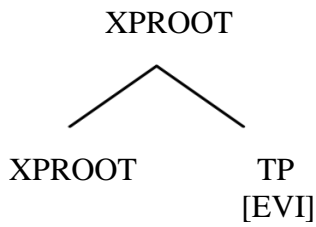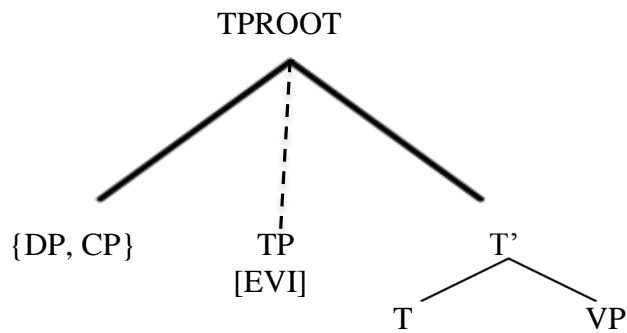
Evidential PEs may occur immediately after the first subject if that subject is a CP or a conjoined DP.

4. Before the Complementizer in an Embedded CP

According to the data this position is *more* grammatical if the Complementizer in question is either "for" or "because"; that is to say, the data show it is possible preceding these Complementizers, but the data for Evidential PEs preceding a "that" Complementizer are less conclusive.
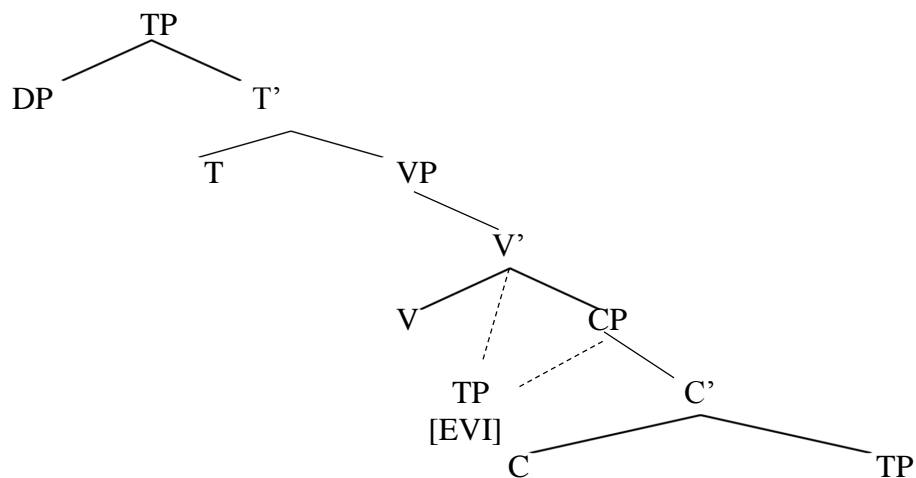


5. Before the Coordinator of a Coordinated VP
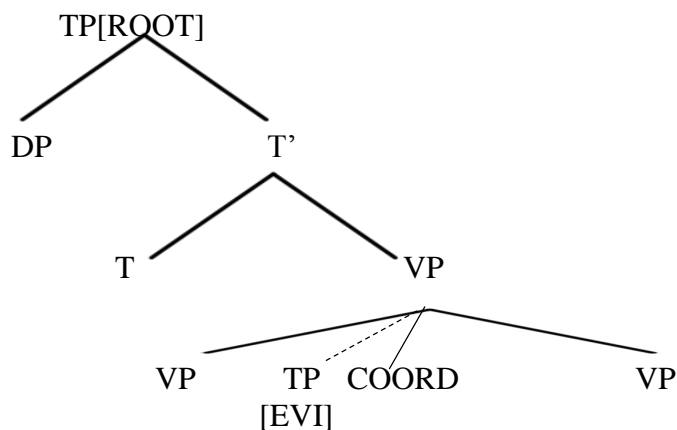
6.  Before the Coordinator of a Coordinated TP

```
                        TP
                       /|\
                      / : \
                     /  :  \
                    /   :   \
                  TP   TP COORD        TP
                      [EVI]
```
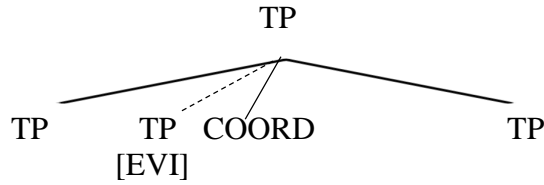
All other positions are subject to variation depending on the type of Evidential PE and other factors such as interactions with other objects and processes.

*1.4 Expletives*

*1.4.1 Conclusively Grammatical Interpolation Points*

Unlike other PEs, the data have shown Expletives to be very restricted in their ability to interpolate. The only truly sacrosanct position is at the left edge, which is judged grammatical in any context.

1.  The Left-Edge

```
              XPROOT
              /    \
             /      \
           YP        XPROOT
         [EXPL]
```

2.  The Right-Edge

```
              XPROOT
              /    \
             /      \
         XPROOT      YP
                   [EXPL]
```
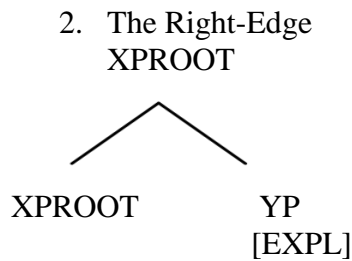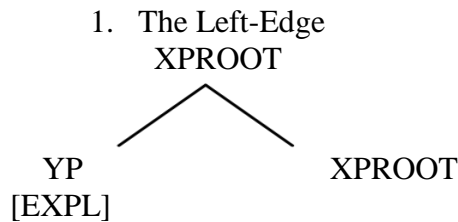
The right edge is largely acceptable, but may still be inconclusive or even ruled out in certain instances, such as those involving [+Q] WH words, PP chains, Auxiliary chains with more than two auxiliary verbs, coordinated VP structures, or coordinated TPs.

*1.4.2 Potentially Grammatical Interpolation Points*

While the data show that only the edges are conclusively grammatical, there has have been some potentially grammatical position which merit mentioning at this point.

1. After the Second Fronted [+focus] DP in an Utterance with Contrastive Topicalization



While this position merited only scores of 7.0 and 6.3, which are statistically indistinct from one another, their borderline nature gives one pause before terming it conclusively

grammatical. Only further investigation can clarify whether this position is a consistently grammatical one.

2. Following the Coordinator of an Utterance with

Contrastive Topicalization
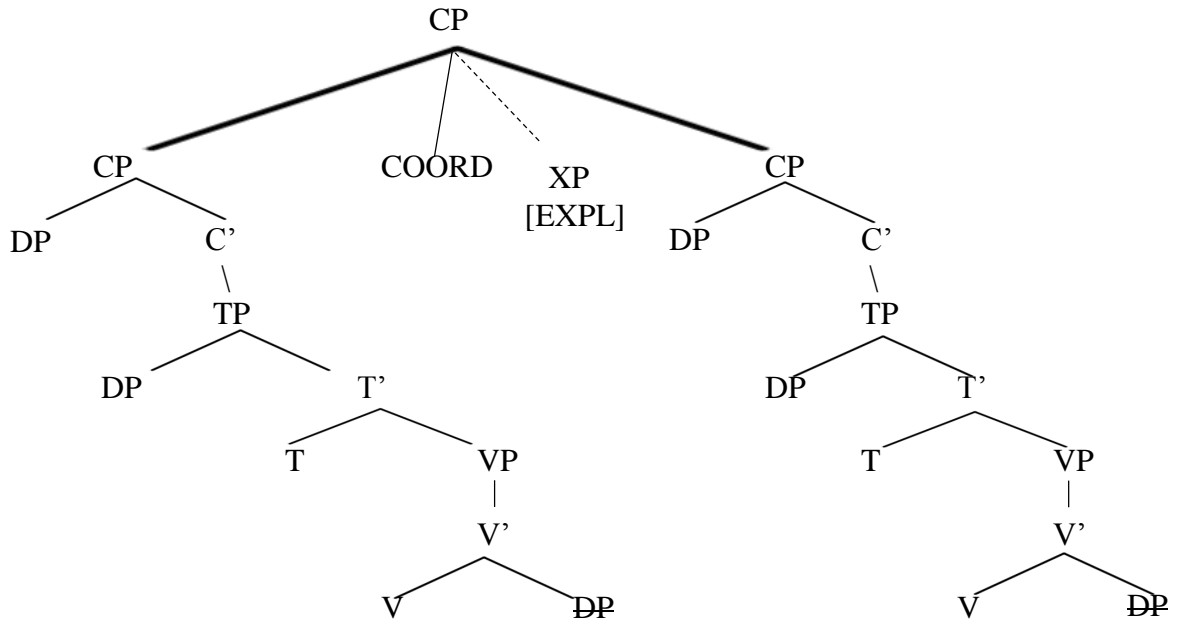
As discussed in Chapter 6: Expletives, Section 4.1, the position following the coordinator in an utterance with Contrastive Topicalization has earned inconclusive scores, but has shown grammatical judgment ratings for male subjects. The tables showing these results follow.

(i)     S66.18 John I like but, fuck, Susan I can't stand.          Average: 6.8

| Self-identified Gender | Average | Standard Deviation |
|---|---|---|
| Female | 5.4 | 1.2 |
| Male | 7.3 | 2.3 |

(ii)    S66.19 Green I like but, shit, pink I hate.          Average: 6.7

| Self-identified Gender | Average | Standard Deviation |
|---|---|---|
| Female | 4.9 | 1.8 |
| Male | 7.3 | 2.4 |

3.   Following the Coordinator of a Coordinated TP Structure



As discussed in Section 3.7.3, while technically inconclusive, the position after the coordinator of a coordinated TP structure has met with results at the very high end of the inconclusive range − 6.6 and 6.9. However, due to the lack of a 7.0 and the inconsistent and insignificant variations present in the data which correlate by age, this position was not able to be considered conclusively grammatical at this time. Future research may determine this decisively, but the present data cannot do so.

*1.5 Multiple Occurrences*

The data have shown that parentheticals are able to exploit "weak spots" in the structure in order to enmesh themselves in it. Furthermore, multiple PEs are able to utilize these entryways at the same time, resulting in several PEs in various positions within the utterance. The stacking of PEs may be limited by processing constraints, possibly similar to the way that humans can only easily process 3 layers of embedding according to Shuy (1998). If there is too much complexity, the meaning gets lost and that is exactly what parentheticals are meant to assist with – interpretation of the proposition. Investigations into the possibility of multiple PEs of various categories appearing in the same utterances were briefly touched upon in this work. The primary focus was on the left edge, and the data yielded the following grammatical combinations:

*(1)      Grammatical Combinations and Positions - Left Edge Data*

| Utterance | A4 | A3 | A2 | A1 |
|-----------|------|------|-------|-------|
| S48.18 | EXPL | EVI | MITIG | VOC |
| ~S68.14 | EXPL | EVI | MITIG | VOC |
| S48.20 | EXPL | VOC | EVI | MITIG |
| ~S68.16 | EXPL | VOC | EVI | MITIG |
| S50.1 | | EVI | EXPL | VOC |
| ~S68.13 | | EVI | EXPL | VOC |
| S47.2 | | EVI | MITIG | MITIG |
| S64.15 | | EVI | MITIG | MITIG |
| S51.2 | | EVI | MITIG | VOC |
| S68.17 | | EVI | MITIG | VOC |
| S50.4 | | EVI | VOC | MITIG |
| S49.19 | | EVI | VOC | MITIG |
| S50.2 | | EVI | VOC | MITIG |
| S50.17 | | EXPL | VOC | MITIG |

| Utterance | A4 | A3 | A2 | A1 |
|-----------|----|----|----|----|
| ~S64.17[4] |  | EXPL | EVI | MITIG |
| S68.19 |  | EXPL | EVI | MITIG |
| S68.20 |  | EXPL | EVI | MITIG |
| S41.2 |  | EXPL | EVI | VOC |
| S50.3 |  | EXPL | EVI | VOC |
| S50.5 |  | EXPL | MITIG | EVI |
| ~S64.18[5] |  | EXPL | MITIG | EVI |
| S49.12 |  | EXPL | MITIG | VOC |
| ~S64.19[6] |  | EXPL | MITIG | VOC |
| S41.1 |  | EXPL | VOC | EVI |
| ~S49.11[7] |  | EXPL | VOC | EVI |
| ~S64.16 |  | EXPL | VOC | EVI |
| S50.16 |  | EXPL | VOC | MITIG |
| S50.19 |  | EXPL | VOC | MITIG |
| S48.6 |  | MITIG | VOC | VOC |
| S64.20 |  | MITIG | VOC | VOC |
| S48.2 |  | MITIG | VOC | MITIG |
| S65.1 |  | MITIG | VOC | MITIG |
| S47.18 |  | MITIG | MITIG | EVI |
| S47.19 |  | MITIG | MITIG | EVI |
| S51.13 |  | MITIG | VOC | EVI |
| ~S65.2[8] |  | MITIG | VOC | EVI |
| S50.7 |  | VOC | EVI | MITIG |
| S51.7 |  | VOC | EVI | MITIG |
| S41.8 |  | VOC | EXPL | EVI |
| S49.8 |  | VOC | EXPL | EVI |
| ~S50.8[9] |  | VOC | EXPL | EVI |

---

[4] The difference between S64.17 and S68.20 is statistically insignificant. Therefore, this combination is considered grammatical.

[5] The difference between S50.5 and S64.17 has been determined to be insignificant. However, it may be useful to note that the averages were 6.4 and 7.0 – very borderline scores. However, the score of 7.0 does make this utterance technically grammatical.

[6] The difference between S49.12 and S64.19 is statistically insignificant. Therefore, this combination is considered grammatical.

[7] The difference between S41.1 and S49.11 is statistically insignificant. Therefore, this combination is considered grammatical.

[8] The difference between S51.13 and S65.2 is statistically insignificant. Therefore, this combination is considered grammatical.

[9] The differences between the four utterances testing this combination are statistically insignificant. As such, this combination is considered grammatical.

| Utterance | A4 | A3 | A2 | A1 |
|---|---|---|---|---|
| ~S51.8[10] | | VOC | EXPL | EVI |
| S49.16 | | VOC | EXPL | MITIG |
| ~S51.9[11] | | VOC | EXPL | MITIG |
| S50.9 | | VOC | MITIG | EVI |
| S51.11 | | VOC | MITIG | EVI |
| S48.1 | | VOC | MITIG | MITIG |
| ~S65.4 | | VOC | MITIG | MITIG |
| *S69.11 | | VOC | MITIG | MITIG |
| ~S69.12 | | VOC | MITIG | MITIG |

Additional inquiries were initially made into combinations utilizing positions other than the left edge in immediate succession. The grammatical results follow:

*(2)     Patterns of Grammaticality*

| Utterance | A2 | A1 | __ CP[C | B1 | B2 |
|---|---|---|---|---|---|
| S51.2 | EVI | EVI | | | |
| S41.6 | EXPL | EVI | | VOC | |
| S43.13 | EXPL | VOC | | VOC | |
| S47.1 | MITIG | EVI | | | |
| S48.5 | MITIG | MITIG | | VOC | |
| S44.1 | VOC | VOC | | EVI | |
| S51.19 | VOC | VOC | | | |
| S44.8 | | EXPL | | VOC | |
| S45.1 | | EXPL | | EXPL | |
| S43.11 | | EXPL | | VOC | VOC |
| S48.9 | | MITIG | | VOC | VOC |
| S44.9 | | VOC | | EXPL | |
| S43.2 | | EXPL | VOC | | |

---

[10] The differences between the four utterances testing this combination are statistically insignificant. As such, this combination is considered grammatical.

[11] The difference between S49.16 and S51.9 is statistically insignificant. Therefore, this combination is considered grammatical.

## 2 Implications for the Theory

### *2.1 CAPES Data and the Extant Theories*

The present theories in Parenthetical Expressions vary drastically as to how the PE comes to exist relative to the host clause. What is agreed, however, is the fact that they do appear linearly (even if whether they do so syntactically is debated). The arguments presented in the Introduction (i.e. Chapter 1, Section 3) outline the difficulties of the theories which exist at present. The primary issue is that PEs seem to be hidden from certain processes to which normal adjuncts are subject, but other behaviors suggest that the PE is fully integrated with the host clause. This is a phenomena which I have termed "Schrödinger's Node" and results in a dispute over whether or not the PEs attach syntactically or are processed (and inserted) at the Pragmatic level. From there, the debate evolves into where, when, and how the PEs are generated.

Each of the theories has some sort of support, but none of them is fully supported. I have considered this issue for some time and believe that it is possible that part of the problem is the treatment of all parentheticals as if they are the same. It seems natural that Evidential PEs cannot occur with questions (see Chapter 5: Evidential PEs, Section 4.5) since their function is to convey the strength of veracity of a proposition. It also seems reasonable that Kavalova's (2007) investigation into "and-parentheticals" shows that the left edge does not work given that "and" is a coordinator and appearing before the first of the coordinated items is not grammatical. Given the fact that parentheticals' behavior is limited both by lexical/grammatical constraints as well as their pragmatic function, why is

it that PEs are treated as a singular category to either attach or not attach as a single, massive group? There have been some attempts to create categories and taxonomies (see Kaltenböck 2007), but for the most part the differences between the behavioral patterns of PEs have been left unacknowledged.

It is possible, as some have argued, that the parentheticals are introduced as separate items from the pragmatic stage of utterance formation, which then are able to enmesh themselves into certain porous and permeable areas of the structure. The data show that some of these windows to the structure are more or less accessible to various types of PEs and that each category's behavior constitutes its own pattern. While there are some consistencies across categories, parentheticals as a whole cannot be lumped into a single group in terms of their behavior. To rephrase, each category has its own set of grammatical interpolation points. Some of these such as the edges, after the first subject, and preceding the Complementizer of an embedded CP (another left edge), are more likely than others to be grammatical and cross category boundaries. However, there is no catchall behavior which shows that each of the parentheticals pattern together in any way other than the ever-expected edges and the definition of their purpose and use. For ease of reference, a table illustrating these differing patterns of behavior follows.

(3) *Interpolation Points Across Categories*

| | **Vocatives** | **Mitigatory** | **Evidential** | **Expletive** |
|---|---|---|---|---|
| Left Edge | YES | YES | YES | YES |
| Right Edge | YES | YES | YES | YES[12] |
| After 1st Subj. | YES | YES | YES | NO |
| Between 1st and 2nd Aux | NO | YES | YES | NO |
| Before Overt C[13] | YES | YES | YES | NO |
| Between 1st PP and 2nd PP | YES | YES | YES | NO |
| Between 2nd and 3rd PP | YES | YES | MIXED | NO |
| Between V and 1st PP | YES | MIXED | MIXED | NO |
| Before Coord. In Coord VP | YES | YES[14] | YES | NO |
| After Coord in Coord VP | NO | YES | YES | NO |
| Before C in Coord VP | -----[15] | YES | YES | NO |
| After C in Coord VP | ----- | MIXED | YES[16] | NO |
| After 1st Subject of Leftmost TP in Coordinated TP | MIXED/ INCONCL. | YES | MIXED | NO |
| After 1st Subject of Rightmost TP in Coordinated TP | MIXED | MIXED | MIXED/ INCONCL. | ----- |
| Before Coord in Coord TP | YES | YES | MIXED | NO |
| After Coord in Coord TP | MIXED | YES | NO | NO |

---

[12] The only exception here is when the utterance is a question.

[13] Preceding the Complementizer of an embedded CP is also a left edge, so this position is not surprising in its general acceptability.

[14] For Mitigatory PEs, this position is allowed for cases in which the coordinated VP is not within an embedded clause. Where the coordinated VP is part of an embedded clause, this is ungrammatical.

[15] This notation indicates that there presently is insufficient data for this position and category combination.

[16] This is dependent upon the PE used – while "I believe" and "I hear" are grammatical in this location, "you know" and "you see" are not. Semantics may play a role here and this merits further study.

|  | **Vocatives** | **Mitigatory** | **Evidential** | **Expletive** |
|---|---|---|---|---|
| Before C in Coord TP | ----- | YES | MIXED | NO |
| After C in Coord TP | ----- | YES | INCONCL. | NO |
| After 1st [+foc] fronted DP (Contrastive Topicalization) | YES | YES | YES | NO |
| After 2nd [+foc] fronted DP (Contrastive Topicalization) | YES | MIXED | MIXED | POTENTIALLY |
| Before Coord with Contrastive Topicalization | YES | MIXED | MIXED | NO |
| After Coord with Contrastive Topicalization | MIXED | INCONCL. | INCONCL. | INCONCL. |

## *2.2 Level of Attachment*

From a structural standpoint, the sensitivity to confounds such as Dummy Subjects and WH Movement which the data show suggest that the appearance of the PEs begins at the surface structure. It is no tremendous surprise that the PEs do not appear in the deep structure, but now we have evidence that suggests that they apply after all other processes have taken place. Examples of the data indicating this follow.

*(6) Following the First Subject with no Movement Processes*

   *a.   Vocatives*

S2.11 You, sir, are intolerable.                                                                 Average: 9.1
S6.16 You, Fred, need to get off this couch and find a job.                    Average: 8.4

    b. *Mitigatory PEs*

S15.11 He, by the way, has a girlfriend.                          Average: 8.9
S67.3 Katie, apparently, had to go to the store because we ran out    Average: 8.5
    of ice.

    c. *Evidential PEs*

S37.2 Joe, you see, refused to answer the question because it        Average: 8.0
    was rude.
S35.14 The yard and the pool, I hear, were in terrible condition.    Average: 8.2

*(7) Dummy Subject*

    a. *Vocatives*

S3.8 It, Lindsay, is raining.                                 Average: 4.0
S52.3 It, John, seems like you know how to play that banjo.    Average: 4.4

    b. *Mitigatory PEs*

S18.20 There, as it turns out, were some good suggestions.    Average: 5.0
S18.11 It, by the way, seemed like he knew what he was doing.    Average: 4.4

    c. *Evidential PEs*

S28.3 It, you see, started to snow.                          Average: 4.0
S28.11 It, you see, seemed like he knew what he was doing.    Average: 4.6
S28.7 It, I believe, was raining.                               Average: 5.2

*(8) [+Q] WH Movement*

    a. *Vocatives*

S9.11 When did you, Fred, get here?                        Average: 5.4
S9.13 Why did you, Susan, forget the cake?              Average: 4.9

    b. *Mitigatory PEs*

S21.4 Where did he, by the way, move?               Average: 3.6
S21.20 Where did he, as it happens, go?             Average: 3.3
S21.9 Which car, incidentally, is yours?             Average: 4.7
S21.12 Which movie, apparently, should we see?    Average: 3.9

### c.   *Evidential PEs*

S31.4 Where did he, you see, move?                          Average: 2.1
S31.12 Which movie, you know, should we see?               Average: 5.1
S31.20 Where did he, I expect, go?                          Average: 2.7


It can be argued that the sensitivity to the processes which lead me to the conclusion

that the PEs attach at the surface level can also indicate that the PEs are not subject to the

syntax at all, but, rather, are pragmatic level objects. Such an observation is fair, but I

cannot help but circle back to one of my earliest qualms – how can there exist rules for

adjunctions/attachments which do not exist? The data have clearly shown that not only are

there very specific points of interpolation allowed, but which points are allowed vary

depending on the class of parenthetical (and even, on occasion, the specific PE) involved.

To me, this suggests that there is attachment of some kind. Given the fact that there are

rules for interpolation and PEs cannot freely be inserted like interjective hesitators (e.g.

"uh", "um"), I posit that there is attachment at the surface level in an adjunction structure.

Unfortunately, things are not that simple. Stating that there is adjunction/attachment at the

surface structure does not explain away the oddities of parenthetical behavior summed up

in the paradox of Schrödinger's Node.

Treating the PEs as straightforward adjuncts a la Potts (2002), while an easy out,

does not account for the facts that PEs are generally not subject to movement, cannot be

the subject of inquiry, cannot be the focus of an it-cleft, are not under quantifier or any

other scope of any operators in the host clause. Insertion Theory, as posited by Ackema

and Neeleman (2004), describes an insertion process by which the PE interpolates, but does

not adjoin syntactically. While this answers some questions, it raises others. Insertion is

based on "feature matching", but the features used to match a host clause (and a specific

weak spot thereof) with a parenthetical are never explicitly discussed. Even if the idea is sound, I find it difficult to put stock into an account which comes to a conclusion with no way of explaining how it did so specifically. It is not enough to reach a correct answer – one must go about it in a scientific way so that results are predictable and replicable. Towards this end, it is reasonable to suppose that some features which are relevant are grammatical category features (e.g. "and" and its inability to adjoin at the left edge as noted in Blakemore's 2005 work) as well as pragmatic or semantic ones (e.g. Evidential PEs cannot appear in questions). However, the specific features must be determined in order for the theory to be sound. For this reason, I cannot fully endorse it at present.

### 2.3 All Parentheticals are not Created Equal

As I have mentioned before, the weak spots in the host structure which are accessible to parentheticals vary based off of which pragmatic category to which the PE belongs. For example, a Mitigatory PE may appear between the first and second auxiliary in an auxiliary chain, but a Vocative may not. A truly complete theory would account for this. At present, I provide only the observations which may provide the foundations of such theorizing in the future. However, given the data, treating all parentheticals as equal would not adequately or accurately reflect their usage.

In order to probe these issues further, one must consider the properties associated with Schrödinger's Node (i.e. the contradictory set of behaviors both indicating attachment and forbidding it) and test the various categories for consistencies with these general assumptions. Further studies into various types of parentheticals and which specific odd

behaviors they exhibit would shed light on the issue, but none is forthcoming in this work. This must be left for future research.

### *2.4 Expletives – an Oddity*

The last issue to address is the oddity of Expletives. As discussed in their chapter (i.e. Chapter 6), the data show that Expletives pattern noticeably differently than the others. Subject comments have suggested that the subjects may be processing the Expletives not as an adjoining interpolated object, but as a separate utterance when present at the only conclusively grammatical positions – the edges. Given the Expletive's status as an "interjection", and the range present thereof from parenthetical objects to pure interjections which are not parenthetical, it must be noted that the data show a conspicuous divergence from the patterns of other categories of parentheticals. The question of whether or not the Expletives studied here are even truly parentheticals, given the data, is a fair one. However, given both the satisfaction of the definition of a parenthetical[17] by Expletives and the data given in Chapter 7: Multiple Parenthetical Expressions which show that Expletives can appear within PE stacks (i.e. between other PEs), I am not inclined to dismiss them from the ranks of parenthetical objects[18]. Further probes into this question are warranted in my opinion, but at present, I simply place them on the extremely limited end of the PE spectrum of interpolative flexibility.

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[17] The definition to which I refer here essentially means that the parenthetical is an intentional stylistic choice which is designed to help the hearer process and respond appropriately to the proposition in the host clause. This has been stated by the likes of Blakemore (1990-1991:210), and Dehe and Kavalova (2007:9) and generally accepted.
[18] See Chapter 6: Expletives, Section 5.2.2 for a more detailed discussion.

It is possible that the ungrammatical judgments made for these objects when interpolated into the host clause is due to the subject's hyperawareness of grammaticality in prescriptivist terms. Essentially, these judgments are possibly overly harsh due to language vs. speech conflicts. However, the issue as to why Expletives are more subject to these conflicts than other PEs remains[19]. That observed fact, in and of itself, is something which is worthy of future study.

### 2.5 Predictions

I would love little more than to be able to make broad, sweeping claims about parentheticals which have ramifications for the theories of both English and cross-linguistic expectations on the basis of my data. However, making extensive assertions having studied only a handful of specific categories would not be scientifically sound and I lack the hubris to propose otherwise. For the English language, I will say that the data I have collected suggest two things worth investigating for other categories of PEs: if they attach, it will be to a phrase-level[20] object, and the likeliest suspects for grammatical interpolation are (in descending order) the left edge, the right edge, after the first subject (with possible caveats for structural properties and certain referring expressions), and preceding an embedded CP[21]. This work has shown that other positions are possible and each of them deserve further study for new categories in my opinion. Possibly the strongest of these claims is the position after the first subject as all of these other 3 likely positions constitute edges. I

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[19] Semantics may also be playing a role in the exceptionality of the Expletive class, which merits further inquiry.

[20] Here, I mean the phrasal level to include, but not be limited to, clauses.

[21] This position is also a left edge.

would also expect that other categories of parentheticals would also show patterns of behavior which are distinct from one another. That is to say, I would predict that, in keeping with the patterns in this data, each category will likely have its own list of restrictions and grammatical interpolation points.

When it comes to other languages, it would seem likely that the best point would be whichever edge is dominant within that language. I would also suspect that the attachment to phrase-level constituents may hold across other languages as I feel it helps in processing. These are, however, speculations to be confirmed rather than assertions on my part.

## 3 Closing Statements

On the basis of the data collected in this work as well as consideration of the previous theories of parentheticals, I posit that there is, rather than a single catch-all category, a wide spectrum of parenthetical objects. Some of these are flexible enough to attach themselves to host clause in a wide array of positions. Others have a more moderate amount of niches to which they have grammatical access. Others, still, are restricted to the edges and a few other potential locations. Determining where on the spectrum a particular PE or category thereof may sit requires in-depth study of potential interpolation points as is found in this work. Determining if there are similar degrees of attachment for these types of parentheticals requires investigation into which PEs bear which syntactic characteristics they exhibit (e.g. not under the scope of any operators in the host clause, cannot be the subject of inquiry, etc). These are areas which deserve if not demand future study. The

investigation of these possible grey scales of positional flexibility and degrees of attachment are necessary for a truly comprehensive understanding of parentheticals in American English.

In closing, parentheticals are seemingly attached and not. They are bound by lexical and pragmatic considerations and processing constraints. They exist in spectra of their own categories on a great continuum of interpolative flexibility and, possibly, degree of attachment. Their behavior is predictable in some ways, but not in others. What is more, they can appear in combination with one another. To sum up, this work has opened a door to a perplexing and potentially endless realm of study. It is up to future scholars and their works to walk through it.

# APPENDIX

Survey 1:

1. Tall guy, you dropped your sunglasses.              Average: 7.9
2. The guy who is lifting weights, you left your towel.   Average: 6.9
3. The guy with the guitar, your backpack's open.        Average: 7.2
4. You dropped your sunglasses, tall guy.                 Average: 8.7
5. You left your towel, the guy who is lifting weights.   Average: 5.5
6. Your backpack's open, the guy with the guitar.        Average: 5.6
7. You forgot your change, guy in the motorcycle jacket.  Average: 7.1
8. You stupid jerk, you stole my coffee!                  Average: 9.7
9. You got her phone number, you sly dog.                 Average: 9.1
10. I want my money back, you cheater.                    Average: 9.7
11. You liar, I demand a refund.                          Average: 8.9
12. She who has no social life, get in the car.           Average: 6.2
13. Stop complaining, she who has no problems.            Average: 6.2
14. You who are sick of tax hikes, come to the protest!   Average: 6.5
15. Come to the meeting, you who want free food.          Average: 5.2
16. Sarah, I need the stapler.                            Average: 9.9
17. I am getting sick of missing the memos, Peter.        Average: 9.7
18. I have your assignment, Anna with two 'n's.           Average: 7.0
19. A: Ted, please come to Human Resources after the meeting.   Average: 8.7
    B: Which Ted do you mean? There are three in this office.
    A: The Ted from accounting, please come to H.R. after the meeting
20. You in the back, please shut the door.               Average: 9.0

Survey 2:

1.  You dropped your hat, you with the green backpack.          Average: 6.7
2.  You, Bob, know that I hate fish.          Average: 5.2
3.  A: What on Earth is that hideous thing?!          Average: 9.0
    B: That, Jill, is my husband.
4.  A: Why is this happening?          Average: 9.1
    B: This is happening, Mary, because you skipped out on bail.
5.  A: Why don't you like him?          Average: 9.1
    B: He punched me in the face, Jill.
6.  A: Why don't you like him?          Average: 8.2
    B: He punched me, Jill, in the face.
7.  A: Why don't you like him?          Average: 8.0
    B: He punched me for no reason, in the face, Jill, in front of my boss.
8.  A: Why don't you like him?          Average: 7.9
    B: He punched me for no reason, Jill, in the face, in front of my boss.
9.  : Why don't you like him?          Average: 7.4
    B: He punched me for no reason, in the face, in front of my boss, Jill.
10. Dude, I need the copier.          Average: 7.8
11. You, sir, are intolerable.          Average: 9.1
12. Kelly, I can't find the file.          Average: 9.1
13. Sir, I promise that I will meet the deadline.          Average: 9.1
14. A: Why did he get fired?          Average: 8.5
    B: He got fired, Kim, because he was embezzling funds.
15. You know, Bob, that I hate baseball.          Average: 7.1
16. You can't claim, Bob, you have the necessary work experience.          Average: 5.4
17. A: You're overreacting.          Average: 9.1
    B: He stole my watch, Susan.
18. That he stole my watch is clear.          Average: 6.8
19. It won't happen again, ma'am.          Average: 9.1
20. I wonder, Tom, which book he wants me to buy.          Average: 6.0

Survey 3:

| | | |
|---|---|---|
| 1. | I wonder, Tom, which book he wants me to buy him. | Average: 5.6 |
| 2. | I <u>wonder</u>, Tom, which book he wants me to buy him. | Average: 6.1 |
| 3. | He was running to, Bob, the house. | Average: 2.9 |
| 4. | He was running to the, Bob, green house. | Average: 3.0 |
| 5. | He was running to the, Bob, <u>yellow</u> house. | Average: 3.8 |
| 6. | You can't pretend, Bob, that you have the qualifications. | Average: 9.2 |
| 7. | You can't say that, Susan, you worked somewhere you didn't. | Average: 5.5 |
| 8. | It, Lindsay, is raining. | Average: 4.0 |
| 9. | It's cold out, Fred. | Average: 9.5 |
| 10. | There is a chance, Sarah, that you might win the contest. | Average: 9.1 |
| 11. | <u>There</u> is, Bill, no way you can lose. | Average: 5.4 |
| 12. | There <u>is</u>, Fred, a way to get around the system. | Average: 7.1 |
| 13. | There, Fred, is a way to get <u>around</u> the system. | Average: 4.1 |
| 14. | It can be done, Sarah. | Average: 9.5 |
| 15. | The quarterhorse, sir, is running well, but the thoroughbred is not. | Average: 8.5 |
| 16. | The book, I bought for you, Karen, but the movie, I bought for myself. | Average: 8.4 |
| 17. | The book, I bought for you, but the movie, Karen, I bought for myself. | Average: 8.1 |
| 18. | The fishing pole, I sold at the garage sale, but your vase I kept, Amanda. | Average: 8.7 |
| 19. | Amanda, the fishing pole, I sold at the garage sale, but your vase I kept. | Average: 8.2 |
| 20. | The fishing pole, I sold at the garage sale, but I kept your vase, Amanda. | Average: 8.8 |

Survey 4:

1. A: What should we do today?                                          Average: 5.1
   B: There <u>is</u>, Susan, a new movie out.
2. A: There aren't any places to go in San Diego.                       Average: 4.6
   B: <u>There</u> is, Susan, a zoo.
3. The skirt, I bought at, Stephanie, the mall, but your sweater I got   Average: 5.1
   downtown.
4. The skirt, I bought, Stephanie, at the mall, but your sweater I got   Average: 6.7
   downtown.
5. The tickets, I won on the radio, <u>and</u>, Mary, the airfare I paid  Average: 4.5
   myself.
6. The tickets, I won on the radio, and, <u>Mary</u>, I paid the airfare  Average: 7.1
   myself.
7. The tickets, I won on the radio, Mary, but the airfare I paid         Average: 8.1
   myself.
8.  Welcome to the homeless shelter. You who are hungry,                 Average: 7.7
   form a line by the kitchen, but you who need shelter, sign in at
   the front desk.
9. The tickets, Mary, I won on the radio, the airfare I paid myself.     Average: 7.7
10. The tickets, I won on the radio, Mary, and the airfare I paid        Average: 8.1
   myself.
11. Hey tall guy, you dropped your glasses.                              Average: 9.2
12. Hey, the guy that is lifting weights, you left your towel.           Average: 6.3
13. Hey, the guy with the guitar, your backpack's open.                  Average: 7.8
14. Hey, you dropped your sunglasses, tall guy.                          Average: 7.5
15. Hey, you left your towel, the guy who is lifting weights.            Average: 4.2
16. Hey, you forgot your change, guy in the motorcycle jacket.           Average: 6.2
17. Hey, you stupid jerk, you spilled my coffee!                         Average: 9.1
18. Hey, the guy lifting weights, you left your towel.                   Average: 6.7
19. Hey, you liar, I demand a refund.                                    Average: 8.9
20. Hey, she who has no social life, get in the car.                     Average: 5.7

Survey 5:

| | | |
|---|---|---|
| 1. | Hey, stop complaining, she who has no problems. | Average: 5.7 |
| 2. | Hey, Kelly, I can't find the file. | Average: 9.9 |
| 3. | Hey, I am getting sick of missing those memos, Bill. | Average: 9.1 |
| 4. | Hey, I have your term paper, Anna with two 'n's. | Average: 5.7 |
| 5. | Hey, you in the back, please shut the door. | Average: 9.5 |
| 6. | Hey, guy with the guitar, your backpack's open. | Average: 9.0 |
| 7. | Hey, you got a parking ticket, you law-breaker. | Average: 9.3 |
| 8. | Hey, Bill, please ask Susan if I can borrow her shredder. | Average: 9.5 |
| 9. | Hey, Bill…please ask Susan if I can borrow her shredder. | Average: 9.5 |
| 10. | The boss found out that she, Bill, was stealing supplies. | Average: 4.6 |
| 11. | It is clear that you, Susan, need a haircut. | Average: 7.5 |
| 12. | He wanted for <u>you</u>, Mary, to give him your number. | Average: 6.7 |
| 13. | She was hoping, Jane, for you to agree with her. | Average: 6.6 |
| 14. | She was hoping, Mary, that you would agree with her. | Average: 8.2 |
| 15. | She was wondering if, Mary, you would agree with her. | Average: 5.4 |
| 16. | Bill expected, Mary, you would disagree. | Average: 4.5 |
| 17. | Bill expected you, Mary, to disagree. | Average: 6.9 |
| 18. | Bill <u>expected</u> for you, Mary, to disagree. | Average: 7.0 |
| 19. | Bill expected for, Mary, you to disagree. | Average: 3.2 |
| 20. | It was clear, Kaitlin, you were after his job. | Average: 8.1 |

Survey 6:

1. Eric, that you would have lost the race is clear.     Average: 5.2
2. That the cat attacked my math book is hilarious, Alice.     Average: 6.0
3. You in the sweatshirt, that you would've won the race is clear.     Average: 3.9
4. You unlucky man, that you would've won the race is clear.     Average: 4.6
5. That the cat attacked my math book is hilarious, she who has     Average: 4.4
    no sense of humor.
6. That you passed the exam is a miracle, you lucky man.     Average: 7.0
7. That I can see you is obvious, you behind the trash can.     Average: 5.0
8. Susan and Fred, Bill, will come bowling with us.     Average: 5.0
9. I hate baseball, Fred, and I hate the stadium food.     Average: 9.3
10. You love spaghetti and, Fred, I know you like that band.     Average: 4.9
11. Susan, your hair and dress look great!     Average: 9.4
12. Your hair and dress look great, Susan.     Average: 9.7
13. Fred, you need to get up and you need to find a job.     Average: 9.5
14. Fred, you need to get up and find a job.     Average: 9.5
15. You need to get off this couch and find a job, Fred.     Average: 9.5
16. You, Fred, need to get off this couch and find a job.     Average: 8.4
17. You, Kaitlin, hate nightclubs and you love the carnival.     Average: 6.9
18. You hate nightclubs and you, Kaitlin, love the carnival.     Average: 5.7
19. Your hair and makeup look great, she who can't take a     Average: 5.1
    compliment.
20. She who is way too insecure, your hair and makeup look great.     Average: 4.5

Survey 7:

1.  You in the dress, your hair and makeup look great!        Average: 8.0
2.  Your shoes and shirt are gorgeous, you in the front.       Average: 6.3
3.  I love your suit and tie, you beautiful man.               Average: 8.3
4.  You beautiful man, I love your suit and tie.               Average: 5.1
5.  I can't believe you found my phone and I'll never forget it,   Average: 7.4
    you knight in shining armor.
6.  He's being arrested, Karen, because he punched the policeman.  Average: 9.3
7.  Karen, he's being arrested because he punched the policeman.   Average: 9.6
8.  He's being arrested because he punched the policeman, Karen.   Average: 8.7
9.  You lost your job, she who always gets the blame, because your   Average: 5.4
    boss thought you were stealing things.
10. You lost your job, unlucky girl, because your boss thought you   Average:7.0
    were stealing things.
11. You lost your job, girl with terrible luck, because your boss   Average: 7.6
    thought you were stealing things.
12. Alice, which piano is broken?                             Average: 9.2
13. Which book would you like, Tom?                           Average: 9.7
14. Which piano is broken, he who knows everything?           Average: 5.5
15. You who know everything, which piano is broken?           Average: 6.7
16. He who knows everything, which piano is broken?           Average: 6.7
17. Which piano is broken, know-it-all?                       Average: 8.4
18. Tom, I wonder which book she wants me to buy her.         Average: 8.9
19. I'm not sure which piano is broken, Alice.                Average: 9.7
20. I'm not sure which piano, Alice, is broken.               Average: 4.8

Survey 8:

1.  I'm not sure <u>which</u> piano, Alice, is broken.                         Average: 5.7
2.  It is possible that this piano, Tom, is broken.                            Average: 6.8
3.  It is possible that <u>this</u> piano, Tom, is broken.                     Average: 6.5
4.  It is possible that she could, Tom, have been at the party.               Average: 5.0
5.  It is possible that she could have, Tom, been at the party.               Average: 5.1
6.  She might have been, Tom, driving to the store.                           Average: 4.4
7.  The cat <u>will</u>, Tom, eat your goldfish.                              Average: 5.3
8.  The cat will, Tom, eat your goldfish.                                     Average: 3.8
9.  The cat <u>may</u>, Tom, be eating your goldfish.                         Average: 4.9
10. The cat may, Tom, be eating your goldfish.                                Average: 3.6
11. That he likes you is obvious, Mary.                                       Average: 7.6
12. Mary, that he likes you is obvious.                                       Average: 7.0
13. That, Mary, he likes you is obvious.                                      Average: 3.7
14. That I can see you is obvious, you hiding behind the trash can.           Average: 4.0
15. You love spaghetti and, <u>Fred</u>, I know you like that band.          Average: 5.9
16. It is raining, Mary.                                                      Average: 9.7
17. It is clear, Mary, that he likes you.                                     Average: 8.8
18. It is clear, Mary, he likes you.                                          Average: 8.2
19. There are, Mary, several apartments available.                           Average: 5.8
20. The cat, Tom, may be eating your goldfish.                               Average: 5.9

Survey 9:

1. The cake, I bought at the bakery, but, <u>Mary</u>, the pie I made myself.     Average: 4.5
2. The cake, I bought at the bakery, <u>but</u>, Mary, the pie I made myself.     Average: 6.5
3. The cake, I bought at the bakery, but the pie I made myself, Mary.     Average: 8.2
4. Mary, the cake I bought at the bakery, but the pie I made myself.     Average: 8.0
5. The cake, I bought at, Mary, the bakery, but the pie I made myself.     Average: 3.7
6. The cake, I bought, Mary, at the bakery, but the pie I made myself.     Average: 4.4
7. The cake, I bought at the bakery, but the pie, Mary, I made myself.     Average: 6.7
8. Mary, where did you put the cake?     Average: 9.6
9. Where did you put the cake, Mary?     Average: 9.9
10. Where, Mary, did you put the cake?     Average: 6.6
11. When did you, Fred, get here?     Average: 5.4
12. Why, John, didn't you come to the party?     Average: 6.5
13. Why did you, Susan, forget the cake?     Average: 4.9
14. Where are you going, you in the coat?     Average: 5.9
15. You in the front, who are you?     Average: 8.8
16. Where, you in the front, do you think you're going?     Average: 5.1
17. When, you in the costume, did you arrive?     Average: 5.2
18. Alice, I need to know which coat is yours.     Average: 9.7
19. I'm not sure when the party is, Fred.     Average: 9.2
20. I need to know which coat, Alice, is yours.     Average: 6.2

Survey 10:

1. I need to know, Alice, <u>which coat</u> is yours.                   Average: 8.1
2. I need to <u>know</u>, Alice, which coat is yours.                   Average: 8.0
3. Fred, that you need a haircut is not debatable.               Average: 5.6
4. That you need a haircut is not debatable, Fred.               Average: 7.3
5. You weirdo, that you need a haircut is obvious.               Average: 5.5
6. That you need a haircut is obvious, you weirdo.               Average: 7.1
7. You ungrateful jerk, that you need my help is clear.         Average: 4.7
8. You in the back, that you don't know what you're doing is    Average: 4.1
   obvious.
9. That you don't know what you're doing is obvious, you in     Average: 4.9
   the front.
10. You who need encouragement, buy my new book.                Average: 5.8
11. Karen and Fred, mom, are going with me to the party.        Average: 5.6
12. Susan and James, sir, are working on that project.          Average: 6.9
13. Sir, Susan and James are already working on that project.   Average: 9.0
14. Susan, sir, and James are already working on that project.  Average: 4.8
15. Karen, mom, and Fred are going with me to the party.        Average: 4.7
16. Karen and Fred are going with me to the party, mom.         Average: 9.0
17. You in the front, Karen and Susan will show you where the   Average: 8.3
    copier is.
18. Karen and Susan will show you how to use the copier, you in the   Average: 5.8
    blue coat.
19. I saw you steal my wallet, you jerk in the hoodie.          Average: 6.9
20. You jerk in the hoodie, I saw you steal my wallet.          Average: 7.6

Survey 11:

1. You arrogant jerk, I saw you steal that book!     Average: 9.3
2. I saw you yell at that woman, you rude jerk!     Average: 9.1
3. I, you arrogant jerk, saw you steal her wallet.     Average: 4.2
4. I saw you, you arrogant jerk, steal her wallet!     Average: 5.3
5. I saw you apologize and buy her coffee, you gentleman.     Average: 7.3
6. You sweetheart, she said you saved her dog and took care of him for a week.     Average: 9.0
7. Mary, he saved her dog from the street and he took care of him for a week.     Average: 9.0
8. He saved her dog and he took care of him for a week, Mary.     Average: 8.7
9. He saved her dog, Mary, and he took care of him for a week.     Average: 8.5
10. He saved her dog and, Mary, he took care of him for a week.     Average: 4.8
11. He, Mary, saved her dog and he took care of him for a week.     Average: 3.7
12. He saved her dog and he, Mary, took care of him for a week.     Average: 4.2
13. I know, Alice, that you worry about Fred.     Average: 7.8
14. I know, Alice, you worry about Fred.     Average: 8.3
15. I know that he's generous, Mary, because I saw him donate money to the homeless shelter.     Average: 9.4
16. I know that, Mary, he's generous because I saw him donate money to the homeless shelter.     Average: 5.4
17. You shouldn't protest here, you with the sign because no one will notice you.     Average:4.9
18. I know he's generous, you untrusting jerk, because I saw him donate money to the homeless shelter.     Average: 7.2
19. I'm going to the county fair on Saturday, by bus, with my cousins, Alice.     Average: 7.4
20. I'm going to the county fair on Saturday, Alice, by bus with my cousins.     Average: 6.0

Survey 12:

| | | |
|---|---|---|
| 1. | Incidentally, he has a girlfriend. | Average: 9.1 |
| 2. | Apparently, he has a girlfriend. | Average: 9.5 |
| 3. | As it turns out, he has a girlfriend. | Average: 9.6 |
| 4. | As it happens, he has a girlfriend. | Average: 7.4 |
| 5. | It turns out that he has a girlfriend. | Average: 8.9 |
| 6. | It so happens that he has a girlfriend. | Average: 8.4 |
| 7. | It so happens he has a girlfriend. | Average: 8.2 |
| 8. | As it so happens, he has a girlfriend. | Average: 6.5 |
| 9. | He, incidentally, has a girlfriend. | Average: 6.5 |
| 10. | He, incidentally, has a girlfriend. | Average: 6.5 |
| 11. | He, apparently, has a girlfriend. | Average: 8.1 |
| 12. | He, as it turns out, has a girlfriend. | Average: 7.6 |
| 13. | He, it turns out, has a girlfriend. | Average: 7.2 |
| 14. | He, as it happens, has a girlfriend. | Average: 5.8 |
| 15. | He, it turns out, has a girlfriend. | Average: 6.7 |
| 16. | He, as it so happens, has a girlfriend | Average: 5.5 |
| 17. | He, it so happens, has a girlfriend. | Average: 5.6 |
| 18. | He has, incidentally, a girlfriend. | Average: 5.2 |
| 19. | He has, incidentally, a girlfriend. | Average: 4.6 |
| 20. | He has, incidentally, a girlfriend. | Average: 5.1 |

Survey 13:

| | | |
|---|---|---|
| 1. | Clark, honey, are you alright? | Average: 9.6 |
| 2. | Jake, you jerk, give me back my book! | Average: 8.8 |
| 3. | Sasha, dear, you should really try to relax. | Average: 8.9 |
| 4. | Your mom went to the store, Bobby, sweetheart. | Average: 6.4 |
| 5. | I think you should sit down, Jim, dear. | Average: 6.8 |
| 6. | Did you know, Bobby, dear, that your parents are in town? | Average: 7.0 |
| 7. | I'm pretty sure, John, you jackass, that I'm going to pass the exam. | Average: 7.0 |
| 8. | I, Eric, honey, am going to the party. | Average: 6.6 |
| 9. | You, Karen, dear, need to get a life. | Average: 6.6 |
| 10. | I, Ben, darling, don't care what you think. | Average: 6.8 |
| 11. | Just give her the keys, you jerk, John. | Average: 5.8 |
| 12. | Just give her the keys, John, you jerk. | Average: 7.2 |
| 13. | You, Sean, my dear, are in for a surprise. | Average: 7.9 |
| 14. | That he's allergic to peanuts, Alice, my dear, is somewhat important. | Average: 5.5 |
| 15. | That you broke your leg, Sean, honey, is unfortunate. | Average: 5.1 |
| 16. | Because he was embezzling, Jake, sweetheart, your brother was fired. | Average: 5.6 |
| 17. | He already left town by bus last Thursday, Eric, dear. | Average: 6.6 |
| 18. | He already left town, Eric, dear, by bus last Thursday. | Average: 5.6 |
| 19. | He already left town by bus, Eric, dear, last Thursday. | Average: 5.6 |
| 20. | That ugly house, Ben, darling, is ours now. | Average: 5.6 |

Survey 14:

| | | |
|---|---|---|
| 1. | He has, apparently, a girlfriend. | Average: 6.7 |
| 2. | He has, as it turns out, a girlfriend. | Average: 8.2 |
| 3. | He has, as it happens, a girlfriend. | Average: 6.3 |
| 4. | He has, it turns out, a girlfriend. | Average: 7.6 |
| 5. | He has, it turns out that, a girlfriend. | Average: 2.8 |
| 6. | He has, it so happens, a girlfriend. | Average: 6.0 |
| 7. | He has, it so happens that, a girlfriend. | Average: 2.3 |
| 8. | He has, as it so happens, a girlfriend. | Average: 6.7 |
| 9. | He has, incidentally, a girlfriend. | Average: 6.1 |
| 10. | <u>He</u> has, incidentally, a girlfriend. | Average: 5.6 |
| 11. | He has, apparently, a girlfriend. | Average: 6.4 |
| 12. | He has, as it turns out, a girlfriend. | Average: 8.1 |
| 13. | He has, it turns out, a girlfriend. | Average: 8.0 |
| 14. | He has, as it happens, a girlfriend. | Average: 5.6 |
| 15. | He has, it turns out, a girlfriend. | Average: 7.6 |
| 16. | He has, as it so happens, a girlfriend | Average: 6.0 |
| 17. | He has, it so happens, a girlfriend. | Average: 6.0 |
| 18. | He <u>has</u> a, incidentally, girlfriend. | Average: 2.4 |
| 19. | <u>He</u> has a, incidentally, girlfriend. | Average: 1.9 |
| 20. | He has a, incidentally, <u>girlfriend.</u> | Average: 2.5 |

Survey 15:

| | | |
|---|---|---|
| 1. | He has a girlfriend, incidentally. | Average: 8.9 |
| 2. | He has a girlfriend, apparently. | Average: 9.6 |
| 3. | He has a girlfriend, as it turns out. | Average: 8.8 |
| 4. | He has a girlfriend, as it happens. | Average: 6.4 |
| 5. | He has a girlfriend, it turns out. | Average: 8.6 |
| 6. | He has a girlfriend, it happens. | Average: 4.6 |
| 7. | He has a girlfriend, it so happens. | Average: 6.5 |
| 8. | He has a girlfriend, it so happens that. | Average: 3.8 |
| 9. | He has a girlfriend, it turns out that. | Average: 3.5 |
| 10. | By the way, he has a girlfriend. | Average: 9.6 |
| 11. | He, by the way, has a girlfriend. | Average: 8.9 |
| 12. | He has, by the way, a girlfriend. | Average: 6.4 |
| 13. | He has a, by the way, girlfriend. | Average: 2.7 |
| 14. | He has a girlfriend, by the way. | Average: 9.6 |
| 15. | He has incident'ly a girlfriend. | Average: 6.1 |
| 16. | He, incident'ly has a girlfriend. | Average: 7.0 |
| 17. | Incident'ly, he has a girlfriend. | Average: 8.2 |
| 18. | He has a, incident'ly, girlfriend. | Average: 2.3 |
| 19. | He has a girlfriend, incident'ly. | Average: 8.0 |
| 20. | Incidentally, it turns out he has a girlfriend. | Average: 7.1 |

Survey 16:

| | | |
|---|---|---|
| 1. | You see, the cat ran away. | Average: 8.7 |
| 2. | You know, the cat ran away. | Average: 8.2 |
| 3. | You <u>know</u>, the cat ran away. | Average: 8.8 |
| 4. | I believe the cat ran away. | Average: 9.3 |
| 5. | I expect the cat ran away. | Average: 7.1 |
| 6. | I think the cat ran away. | Average: 8.9 |
| 7. | The, You see, cat ran away. | Average: 4.9 |
| 8. | The, you know, cat ran away. | Average: 4.3 |
| 9. | The, you <u>know</u>, cat ran away. | Average: 4.1 |
| 10. | The, I believe, cat ran away. | Average: 3.5 |
| 11. | The, I expect, cat ran away. | Average: 2.9 |
| 12. | The, I think, cat ran away. | Average: 3.5 |
| 13. | The cat, you see, ran away. | Average: 8.2 |
| 14. | The cat, you know ran away. | Average: 6.8 |
| 15. | The cat, I believe, ran away. | Average: 7.6 |
| 16. | The cat, I expect, ran away. | Average: 6.7 |
| 17. | The cat, I think, ran away. | Average: 7.4 |
| 18. | The cat ran, you see, away. | Average: 3.1 |
| 19. | The cat ran, you know, away. | Average: 3.7 |
| 20. | The cat ran, you <u>know</u>, away. | Average: 2.9 |

Survey 17:

| | | |
|---|---|---|
| 1. | The cat ran, you know, <u>away</u>. | Average: 6.5 |
| 2. | The cat ran away, you see. | Average: 8.4 |
| 3. | The cat ran away, you know. | Average: 8.7 |
| 4. | The cat ran away, you <u>know</u>. | Average: 6.2 |
| 5. | The cat ran away, I believe. | Average: 9.2 |
| 6. | The cat ran away, I believe. | Average: 8.6 |
| 7. | You see, Susan hated that cat, I think | Average: 7.7 |
| 8. | Apparently, John Susan hated that cat. | Average: 9.5 |
| 9. | You see, John, Susan hated that cat. | Average: 9.5 |
| 10. | John, you idiot, Susan hated that cat. | Average: 8.4 |
| 11. | John, you idiot, Susan hated that cat, you know. | Average: 6.4 |
| 12. | John, you see, Susan hated that cat, I hear. | Average: 4.4 |
| 13. | You see, Susan hated that cat, I believe. | Average: 6.4 |
| 14. | You know, John is a moron, I believe. | Average: 6.2 |
| 15. | Turns out, Susan hated that cat, you know. | Average: 7.8 |
| 16. | It turns out, Susan hated that cat, apparently. | Average: 7.7 |
| 17. | John, it turns out, Susan hated that cat, apparently. | Average: 2.4 |
| 18. | Incidentally, it turns out, Susan hated that cat. | Average: 8.0 |
| 19. | Incidentally, John, it turns out, Susan hated that cat. | Average: 7.8 |
| 20. | Incidentally, it turns out, Susan hated that cat. | Average: 6.5 |

Survey 18:

| | | |
|---|---|---|
| 1. | It started to snow, incidentally. | Average: 8.3 |
| 2. | Incidentally, it started to snow. | Average: 8.9 |
| 3. | It, incidentally, started to snow. | Average: 6.3 |
| 4. | It started, incidentally, to snow. | Average: 5.6 |
| 5. | As it turns out, it was raining. | Average: 9.8 |
| 6. | It was raining, as it turns out. | Average: 9.0 |
| 7. | It, as it turns out, was raining. | Average: 6.1 |
| 8. | It was, as it turns out, raining. | Average: 6.0 |
| 9. | It seemed like he knew what he was doing, by the way. | Average: 8.6 |
| 10. | By the way, it seemed like he knew what he was doing. | Average: 9.6 |
| 11. | It, by the way, seemed like he knew what he was doing. | Average: 4.4 |
| 12. | It seemed like, by the way, he knew what he was doing. | Average: 5.0 |
| 13. | It seemed like he, by the way, knew what he was doing. | Average: 4.1 |
| 14. | It seemed like he knew, by the way, what he was doing. | Average: 3.8 |
| 15. | It seemed like he knew what, by the way, he was doing. | Average: 3.9 |
| 16. | It seemed like he knew what he, by the way, was doing. | Average: 3.5 |
| 17. | It seemed like he knew what he was, by the way, doing. | Average: 2.5 |
| 18. | There were some good suggestions, as it turns out. | Average: 9.3 |
| 19. | As it turns out, there were some good suggestions. | Average: 9.8 |
| 20. | There, as it turns out, were some good suggestions. | Average: 5.0 |

Survey 19:

1. Amanda, I love, but Mary I hate, incidentally. Average: 6.9
2. Incidentally, John I love, but Mary I hate. Average: 8.8
3. Jazz, I love, apparently, but rock I hate. Average: 6.0
4. Jazz I love, but rock, apparently, I hate. Average: 6.6
5. Jazz I love, but rock I, apparently, hate. Average: 5.2
6. Jazz I love but rock I hate, apparently. Average: 7.9
7. Jazz, apparently, I love but rock I hate. Average: 6.6
8. Dogs, I can tolerate, as it turns out, but cats I can't stand. Average: 8.9
9. Dogs, I, as it turns out, can tolerate, but cats, I can't stand. Average: 5.1
10. Dogs, I can, as it turns out, tolerate, but cats, I can't stand. Average: 5.3
11. Mondays, I can take or leave, but, by the way, Wednesdays I love. Average: 5.6
12. Mondays, I can take or leave, by the way, but Wendesdays I love. Average: 7.5
13. Mondays I can take or leave, but Wendesdays, by the way, I love. Average: 6.9
14. Mondays I can take or leave, but Wednesdays, I, by the way, love. Average: 4.2
15. Mondays, I can take or leave, but Wendesdays, I love, by the way. Average: 8.2
16. By the way, Mondays, I can take or leave, but Wednesdays, I love. Average: 8.9
17. What he did, I hate, but how he did it, I love, as it happens. Average: 7.2
18. What he did, as it happens, I hate, but how he did it, I love. Average: 7.0
19. What he did, I hate, as it happens, but how he did it, I love. Average: 6.7
20. What he did, I hate, but how he did it, as it happens, I love. Average: 7.5

Survey 20: Aux, PP Chains Mitigatory

| | | |
|---|---|---|
| 1. | She will be going to college next fall, incidentally. | Average: 7.7 |
| 2. | She will, incidentally, be going to college next fall. | Average: 6.6 |
| 3. | She will be, incidentally, going to college next fall. | Average: 6.0 |
| 4. | She will be going, incidentally, to college next fall. | Average: 5.9 |
| 5. | He had been planning, as it happens, to move, but it didn't work out. | Average: 7.1 |
| 6. | He had, as it happens, been planning to move, but it didn't work out. | Average: 6.6 |
| 7. | He had been, as it happens, planning to move, but it didn't work out. | Average: 6.4 |
| 8. | It is possible that he could, by the way, have been at the party. | Average: 7.3 |
| 9. | It is possible that he could have, by the way, been at the party. | Average: 6.3 |
| 10. | It is possible that he could have been, by the way, at the party. | Average: 5.0 |
| 11. | It is possible that he could have been at the party, by the way. | Average: 9.0 |
| 12. | It is possible that he could have been at the party, by the way, on Tuesday. | Average: 5.9 |
| 13. | It is possible that he could have been at the party on Tuesday, by the way. | Average: 9.3 |
| 14. | It is possible that he could have been at the party on Tuesday for a while, by the way. | Average: 8.0 |
| 15. | It is possible that he could have been at the party on Tuesday, by the way, for a while. | Average: 4.4 |
| 16. | She got lost on the way to the house, apparently. | Average: 9.7 |
| 17. | She got lost on the way to the house, apparently, for two hours. | Average: 7.5 |
| 18. | She got lost on the way to the house for two hours, apparently. | Average: 9.1 |
| 19. | She got lost on the freeway, apparently, for two hours on the way to the house. | Average: 6.6 |
| 20. | She got lost on the freeway for two hours, apparently, on the way to the house. | Average: 7.0 |

Survey 21:

| | | |
|---|---|---|
| 1. | Where did he move, by the way? | Average: 9.2 |
| 2. | Where, by the way, did he move? | Average: 6.7 |
| 3. | Where did, by the way, he move? | Average: 3.7 |
| 4. | Where did he, by the way, move? | Average: 3.6 |
| 5. | By the way, where did he move? | Average: 9.8 |
| 6. | As it turns out, when did she go to the store? | Average: 4.4 |
| 7. | When did she go to the store, as it turns out? | Average: 3.8 |
| 8. | Incidentally, which car is yours? | Average: 7.9 |
| 9. | Which car, incidentally, is yours? | Average: 4.7 |
| 10. | Which car is yours, incidentally? | Average: 6.2 |
| 11. | Apparently, which movie should we see? | Average: 3.9 |
| 12. | Which movie, apparently, should we see? | Average: 3.9 |
| 13. | Which movie should we, apparently, see? | Average: 5.0 |
| 14. | Which movie should, apparently, we see? | Average: 3.7 |
| 15. | Which movie should we see, apparently? | Average: 3.8 |
| 16. | Where did he go, as it happens? | Average: 5.1 |
| 17. | As it happens, where did he go? | Average: 6.6 |
| 18. | Where, as it happens, did he go? | Average: 5.0 |
| 19. | Where did, as it happens, he go? | Average: 2.6 |
| 20. | Where did he, as it happens, go? | Average: 3.3 |

Survey 22:

| | | |
|---|---|---|
| 1. | That it was a bad idea is obvious now, apparently. | Average: 7.5 |
| 2. | Apparently, that it was a bad idea is obvious now. | Average: 8.3 |
| 3. | That it, apparently, was a bad idea is obvious now. | Average: 5.9 |
| 4. | That it was, apparently, a bad idea is obvious now. | Average: 6.2 |
| 5. | That it was a bad idea, apparently, is obvious now. | Average: 7.2 |
| 6. | That it was a bad idea is, apparently, obvious now. | Average: 7.1 |
| 7. | That it was a bad idea is obvious, apparently, now. | Average: 3.5 |
| 8. | For him to go to the party, we would have to bribe him, as it turns out. | Average: 8.6 |
| 9. | As it turns out, for him to go to the party, we would have to bribe him. | Average: 9.3 |
| 10. | For him, as it turns out, to go to the party, we would have to bribe him. | Average: 5.8 |
| 11. | For him to go, as it turns out, to the party, we would have to bribe him. | Average: 4.0 |
| 12. | For him to go to the party, as it turns out, we would have to bribe him. | Average: 7.7 |
| 13. | For him to go to the party, we would, as it turns out, have to bribe him. | Average: 6.2 |
| 14. | For him to go to the party, we would have to, as it turns out, bribe him. | Average: 5.7 |
| 15. | For him to go to the party, we would have to bribe, as it turns out, him. | Average: 1.6 |
| 16. | For him to, as it turns out, go to the party, we would have to bribe him. | Average: 4.2 |
| 17. | By the way, that she would lie to us is hard to believe. | Average: 8.7 |
| 18. | That she, by the way, would lie to us is hard to believe. | Average: 5.3 |
| 19. | That she would lie to us, by the way, is hard to believe. | Average: 8.2 |
| 20. | That she would lie to us is hard, by the way, to believe. | Average: 4.4 |

Survey 23:

| | | |
|---|---|---|
| 1. | That she would lie to, by the way, us, is hard to believe. | Average: 3.0 |
| 2. | That she would, by the way, lie to us is hard to believe. | Average: 4.2 |
| 3. | That she would lie to us is, by the way, hard to believe. | Average: 6.3 |
| 4. | That she would lie to us is hard to, by the way, believe. | Average: 3.4 |
| 5. | That she would lie to us is hard to believe, by the way. | Average: 9.1 |
| 6. | Everyone knows that he hates that movie, apparently. | Average: 7.7 |
| 7. | Apparently everyone knows that he hates that movie. | Average: 9.8 |
| 8. | Everyone, apparently, knows that he hates that movie. | Average: 8.4 |
| 9. | Everyone apparently knows that he hates that movie. | Average: 8.8 |
| 10. | Everyone knows, apparently, that he hates that movie. | Average: 8.0 |
| 11. | Everyone knows that, apparently, he hates that movie. | Average: 6.2 |
| 12. | Everyone knows that he, apparently, hates that movie. | Average: 5.9 |
| 13. | Everyone knows that he hates, apparently, that movie. | Average: 3.0 |
| 14. | Everyone knows that he hates that, apparently, movie. | Average: 1.3 |
| 15. | She said that Susan was going on vacation, by the way. | Average: 9.1 |
| 16. | By the way, she said that Susan was going on vacation. | Average: 9.7 |
| 17. | She, by the way, said that Susan was going on vacation. | Average: 5.3 |
| 18. | She said, by the way, that Susan was going on vacation. | Average: 8.0 |
| 19. | She said that, by the way, Susan was going on vacation. | Average: 5.7 |
| 20. | She said that Susan, by the way, was going on vacation. | Average: 6.6 |

Survey 24:

1.  She said that Susan was, by the way, going on vacation.                      Average: 5.4
2.  She said that Susan was going, by the way, on vacation.                      Average: 4.9
3.  She said that Susan was going on, by the way, vacation.                      Average: 2.5
4.  She said that Susan was going on vacation, as it turns out.                  Average: 8.7
5.  As it turns out, she said that Susan was going on vacation.                  Average: 9.3
6.  Do you think he plays basketball, incidentally?                             Average: 4.6
7.  Incidentally, do you think he plays basketball?                             Average: 6.9
8.  Do you, incidentally, think he plays basketball?                            Average: 3.6
9.  Do you think, incidentally, he plays basketball?                            Average: 4.4
10. Do you think, incidentally, that he plays basketball?                       Average: 4.6
11. Do you think he, incidentally, plays basketball?                            Average: 3.9
12. Do you think he plays, incidentally, basketball?                            Average: 2.4
13. She wanted for him, as it happens, to go home.                              Average: 5.9
14. She wanted, as it happens, for him to go home.                              Average: 6.3
15. She wanted for, as it happens, him to go home.                              Average: 3.2
16. She wanted for him, as it happens, to go home.                              Average: 5.7
17. She wanted for him to, as it happens, go home.                              Average: 4.5
18. She wanted for him to go, as it happens, home.                              Average: 3.1
19. She wanted for him to go home, as it happens.                               Average: 7.7
20. As it happens, she wanted for him to go home.                               Average: 8.9

Survey 25:

| | | |
|---|---|---|
| 1. | John and Mary, incidentally, are coming to the party. | Average: 7.7 |
| 2. | Incidentally, John and Mary are coming to the party. | Average: 8.1 |
| 3. | John, incidentally, and Mary are coming to the party. | Average: 4.3 |
| 4. | John and, incidentally, Mary, are coming to the party. | Average: 3.2 |
| 5. | John and Mary are, incidentally, coming to the party. | Average: 6.2 |
| 6. | John and Mary are coming, incidentally, to the party. | Average: 4.2 |
| 7. | John and Mary are coming to, incidentally, the party. | Average: 2.8 |
| 8. | John and Mary are coming to the, incidentally, party. | Average: 1.9 |
| 9. | The yard and the pool were in terrible condition, as it happens. | Average: 6.4 |
| 10. | As it happens, the yard and the pool were in terrible condition. | Average: 8.8 |
| 11. | The yard, as it happens, and the pool were in terrible condition. | Average: 5.9 |
| 12. | The yard and, as it happens, the pool were in terrible condition. | Average: 4.3 |
| 13. | The yard and the, as it happens, pool were in terrible condition. | Average: 3.1 |
| 14. | The yard and the pool, as it happens, were in terrible condition. | Average: 7.4 |
| 15. | The yard and the pool were, as it happens, in terrible condition. | Average: 5.8 |
| 16. | The yard and the pool were in, as it happens, terrible condition. | Average: 4.3 |
| 17. | The yard and the pool were in terrible, as it happens, condition. | Average: 2.1 |
| 18. | The yard and the pool were in terrible condition, as it turns out. | Average: 8.9 |
| 19. | John came to the party and followed us to the afterparty, as it turns out. | Average: 6.8 |
| 20. | As it turns out, John came to the party and followed us to the afterparty. | Average: 9.5 |

Survey 26:

1. John, as it turns out, came to the party and followed us to the afterparty.    Average: 8.3

2. John came, as it turns out, to the party and followed us to the afterparty.    Average: 4.6

3. John came to the party, as it turns out, and followed us to the afterparty.    Average: 7.8

4. John came to the party and, as it turns out, followed us to the afterparty.    Average: 7.3

5. John came to the party and followed, as it turns out, us to the afterparty.    Average: 2.5

6. John came to the party and followed us, as it turns out, to the afterparty.    Average: 5.8

7. Incidentally, Ben talked all night and annoyed all the guests.    Average: 8.6

8. Ben, apparently, talked all night and annoyed all the guests.    Average: 9.0

9. Ben talked all night and annoyed all the guests, incidentally.    Average: 6.1

10. Ben talked, incidentally, all night and annoyed all the guests.    Average: 3.8

11. Ben talked all night, apparently, and annoyed all the guests.    Average: 8.0

12. Ben talked all night and, incidentally, annoyed all the guests.    Average: 6.9

13. Ben talked all night and annoyed, apparently, all the guests.    Average: 4.4

14. He heard that Bill would leave and Susan would stay, apparently.    Average: 7.9

15. He heard, incidentally, that Bill would leave and Susan would stay.    Average: 7.2

16. He heard that, apparently, Bill would leave and Susan would stay.    Average: 6.9

17. Incidentally, he heard that Bill would leave and Susan would stay.    Average: 8.6

18. He heard that Bill would leave, incidentally, and Susan would stay.    Average: 4.7

19. He heard that bill would leave and, apparently, Susan would stay.    Average: 7.7

20. He heard that Bill would leave and Susan, incidentally, would stay.    Average: 5.1

Survey 27:

1. Incidentally, Joe refused to answer the question because it was rude. — Average: 9.1

2. Joe, incidentally, refused to answer the question because it was rude. — Average: 7.6

3. Joe refused, incidentally, to answer the question because it was rude. — Average: 5.8

4. Joe refused to, incidentally, answer the question because it was rude. — Average: 3.8

5. Joe refused to answer, incidentally, the question because it was rude. — Average: 3.2

6. Joe refused to answer the question, incidentally, because it was rude. — Average: 6.9

7. Joe refused to answer the question because, incidentally, it was rude. — Average: 5.2

8. Joe refused to answer the question because it, incidentally, was rude. — Average: 4.5

9. Joe refused to answer the question because it was rude, incidentally. — Average: 5.5

10. By the way, the cat escaped because it wanted to play outside. — Average: 9.6

11. The cat, by the way, escaped because it wanted to play outside. — Average: 8.5

12. The cat escaped, by the way, because it wanted to play outside. — Average: 8.4

13. The cat escaped because, by the way, it wanted to play outside. — Average: 4.7

14. The cat escaped because it, by the way, wanted to play outside. — Average: 3.2

15. The cat escaped because it wanted, by the way, to play outside. — Average: 4.8

16. The cat escaped because it wanted to, by the way, play outside. — Average: 4.2

17. The cat escaped because it wanted to play, by the way, outside. — Average: 3.5

18. The cat escaped because it wanted to play outside, by the way. — Average: 6.9

19. The landlord turned off the electricity because, apparently, there was an emergency. — Average: 8.5

20. The landlord turned off the electricity, apparently, because there was an emergency. — Average: 7.5

Survey 28:

| | | |
|---|---|---|
| 1. | It started to snow, you see. | Average: 8.4 |
| 2. | You see, it started to snow. | Average: 8.9 |
| 3. | It, you see, started to snow. | Average: 4.0 |
| 4. | It started, you see, to snow. | Average: 4.2 |
| 5. | I believe, it was raining. | Average: 8.5 |
| 6. | It was raining, I believe. | Average: 9.4 |
| 7. | It, I believe, was raining. | Average: 5.2 |
| 8. | It was, I believe, raining. | Average: 5.8 |
| 9. | It seemed like he knew what he was doing, you see. | Average: 8.5 |
| 10. | You see, it seemed like he knew what he was doing. | Average: 9.3 |
| 11. | It, you see, seemed like he knew what he was doing. | Average: 4.6 |
| 12. | It seemed like, you see, he knew what he was doing. | Average: 4.5 |
| 13. | It seemed like he, you see, knew what he was doing. | Average: 4.0 |
| 14. | It seemed like he knew, you see, what he was doing. | Average: 4.3 |
| 15. | It seemed like he knew what, you see, he was doing. | Average: 3.3 |
| 16. | It seemed like he knew what he, you see, was doing. | Average: 3.2 |
| 17. | It seemed like he knew what he was, you see, doing. | Average: 2.9 |
| 18. | There were some good suggestions, I believe. | Average: 9.3 |
| 19. | I believe, there were some good suggestions. | Average: 8.3 |
| 20. | It seemed, you see, like he knew what he was doing. | Average: 6.7 |

Survey 29:

| | | |
|---|---|---|
| 1. | Amanda, I love, but Mary I hate, you see. | Average: 6.8 |
| 2. | You see, Jim I love, but Mary I hate. | Average: 8.3 |
| 3. | Jazz, I love, you know, but rock I hate. | Average: 8.0 |
| 4. | Jazz I love, but rock, you know, I hate. | Average: 6.9 |
| 5. | Jazz I love, but rock I, you know, hate. | Average: 5.1 |
| 6. | Jazz I love but rock I hate, you know. | Average: 7.2 |
| 7. | Jazz, you know, I love but rock I hate. | Average: 6.2 |
| 8. | Dogs, I can tolerate, I believe, but cats I can't stand. | Average: 6.2 |
| 9. | Dogs, I, I believe, can tolerate, but cats, I can't stand. | Average: 3.5 |
| 10. | Dogs, I can, I believe, tolerate, but cats, I can't stand. | Average: 3.9 |
| 11. | Mondays, I can take or leave, but, you see, Wednesdays I love. | Average: 6.5 |
| 12. | Mondays, I can take or leave, you see, but Wednesdays I love. | Average: 8.2 |
| 13. | Mondays I can take or leave, but Wednesdays, you see, I love. | Average: 6.0 |
| 14. | Mondays I can take or leave, but Wednesdays, I, you see, love. | Average: 3.4 |
| 15. | Mondays, I can take or leave, but Wednesdays, I love, you see. | Average: 7.5 |
| 16. | You see, Mondays, I can take or leave, but Wednesdays, I love. | Average: 8.4 |
| 17. | What he did, I hate, but how he did it, I love, I expect. | Average: 3.7 |
| 18. | What he did, I expect, I hate, but how he did it, I love. | Average: 3.6 |
| 19. | What he did, I hate, I expect, but how he did it, I love. | Average: 4.5 |
| 20. | What he did, I hate, but how he did it, I expect, I love. | Average: 4.4 |

Survey 30:

| | | |
|---|---|---|
| 1. | She will be going to college next fall, you see. | Average: 8.5 |
| 2. | She will, you see, be going to college next fall. | Average: 4.7 |
| 3. | She will be, you see, going to college next fall. | Average: 4.3 |
| 4. | She will be going, you see, to college next fall. | Average: 3.9 |
| 5. | He had been planning, I expect, to move, but it didn't work out. | Average: 5.8 |
| 6. | He had, I expect, been planning to move, but it didn't work out. | Average: 5.9 |
| 7. | He had been, I expect, planning to move, but it didn't work out. | Average: 5.4 |
| 8. | It is possible that he could, you see, have been at the party. | Average: 5.0 |
| 9. | It is possible that he could have, you see, been at the party. | Average: 5.1 |
| 10. | It is possible that he could have been, you see, at the party. | Average: 4.1 |
| 11. | It is possible that he could have been at the party, you see. | Average: 8.8 |
| 12. | It is possible that he could have been at the party, you see, on Tuesday. | Average: 5.4 |
| 13. | It is possible that he could have been at the party on Tuesday, you see. | Average: 8.4 |
| 14. | It is possible that he could have been at the party on Tuesday for a while, you see. | Average: 7.0 |
| 15. | It is possible that he could have been at the party on Tuesday, you see, for a while. | Average: 4.5 |
| 16. | She got lost on the way to the house, you know. | Average: 8.7 |
| 17. | She got lost on the way to the house, you know, for two hours. | Average: 6.3 |
| 18. | She got lost on the way to the house for two hours, you know. | Average: 7.8 |
| 19. | She got lost on the freeway, you know, for two hours on the way to the house. | Average: 5.7 |
| 20. | She got lost on the freeway for two hours on the way to the house, you know. | Average: 7.9 |

Survey 31:

| | |
|---|---|
| 1.  Where did he move, you see? | Average: 3.3 |
| 2.  Where, you see, did he move? | Average: 3.4 |
| 3.  Where did, you see, he move? | Average: 2.4 |
| 4.  Where did he, you see, move? | Average: 2.1 |
| 5.  You see, where did he move? | Average: 2.5 |
| 6.  I believe, when did she go to the store? | Average: 3.1 |
| 7.  When did she go to the store, I believe? | Average: 2.9 |
| 8.  You see, which car is yours? | Average: 3.0 |
| 9.  Which car, you see, is yours? | Average: 3.6 |
| 10. Which car is yours, you see? | Average: 3.6 |
| 11. You know, which movie should we see? | Average: 5.8 |
| 12. Which movie, you know, should we see? | Average: 5.1 |
| 13. Which movie should we, you know, see? | Average: 5.5 |
| 14. Which movie should, you know, we see? | Average: 4.9 |
| 15. Which movie should we see, you know? | Average: 2.0 |
| 16. Where did he go, I expect? | Average: 2.7 |
| 17. I expect, where did he go? | Average: 2.0 |
| 18. Where, I expect, did he go? | Average: 2.9 |
| 19. Where did, I expect, he go? | Average: 2.8 |
| 20. Where did he, I expect, go? | Average: 2.7 |

Survey 32:

| | | |
|---|---|---|
| 1. | That it was a bad idea is obvious now, you know. | Average: 7.6 |
| 2. | You know, that it was a bad idea is obvious now. | Average: 7.3 |
| 3. | That it, you know, was a bad idea is obvious now. | Average: 6.5 |
| 4. | That it was, you know, a bad idea is obvious now. | Average: 6.7 |
| 5. | That it was a bad idea, you know, is obvious now. | Average: 7.3 |
| 6. | That it was a bad idea is, you know, obvious now. | Average: 7.8 |
| 7. | That it was a bad idea is obvious, you know, now. | Average: 5.6 |
| 8. | For him to go to the party, we would have to bribe him, I believe. | Average: 8.4 |
| 9. | I believe, for him to go to the party, we would have to bribe him. | Average: 8.3 |
| 10. | For him, I believe, to go to the party, we would have to bribe him. | Average: 5.4 |
| 11. | For him to go, I believe, to the party, we would have to bribe him. | Average: 3.8 |
| 12. | For him to go to the party, I believe, we would have to bribe him. | Average: 7.6 |
| 13. | For him to go to the party, we would, I believe, have to bribe him. | Average: 6.7 |
| 14. | For him to go to the party, we would have to, I believe, bribe him. | Average: 5.6 |
| 15. | For him to go to the party, we would have to bribe, I believe, him. | Average: 2.5 |
| 16. | For him to, I believe, go to the party, we would have to bribe him. | Average: 4.3 |
| 17. | You see, that she would lie to us is hard to believe. | Average: 7.7 |
| 18. | That she, you see, would lie to us is hard to believe. | Average: 4.4 |
| 19. | That she would lie to us, you see, is hard to believe. | Average: 7.8 |
| 20. | That she would lie to us is hard, you see, to believe. | Average: 4.5 |

Survey 33:

| | | |
|---|---|---|
| 1. | That she would lie to, you see, us, is hard to believe. | Average: 2.1 |
| 2. | That she would, you see, lie to us is hard to believe. | Average: 4.1 |
| 3. | That she would lie to us is, you see, hard to believe. | Average: 5.8 |
| 4. | That she would lie to us is hard to, you see, believe. | Average: 4.2 |
| 5. | That she would lie to us is hard to believe, you see. | Average: 8.4 |
| 6. | Everyone knows that he hates that movie, you know. | Average: 8.3 |
| 7. | You know, everyone knows that he hates that movie. | Average: 9.1 |
| 8. | Everyone, you know, knows that he hates that movie. | Average: 6.7 |
| 9. | Everyone you know knows that he hates that movie. | Average: 6.2 |
| 10. | Everyone knows, you know, that he hates that movie. | Average: 5.6 |
| 11. | Everyone knows that, you know, he hates that movie. | Average: 5.9 |
| 12. | Everyone knows that he, you know, hates that movie. | Average: 5.1 |
| 13. | Everyone knows that he hates, you know, that movie. | Average: 3.9 |
| 14. | Everyone knows that he hates that, you know, movie. | Average: 3.3 |
| 15. | She said that Susan was going on vacation, you see. | Average: 8.1 |
| 16. | You see, she said that Susan was going on vacation. | Average: 8.4 |
| 17. | She, you see, said that Susan was going on vacation. | Average: 4.4 |
| 18. | She said, you see, that Susan was going on vacation. | Average: 6.0 |
| 19. | She said that, you see, Susan was going on vacation. | Average: 5.0 |
| 20. | She said that Susan, you see, was going on vacation. | Average: 6.1 |

Survey 34:

| | | |
|---|---|---|
| 1. | She said that Susan was, you see, going on vacation. | Average: 5.0 |
| 2. | She said that Susan was going, you see, on vacation. | Average: 4.2 |
| 3. | She said that Susan was going on, you see, vacation. | Average: 3.4 |
| 4. | She said that Susan was going on vacation, I believe. | Average: 8.7 |
| 5. | I believe, she said that Susan was going on vacation. | Average: 7.2 |
| 6. | Do you think he plays basketball, you see? | Average: 2.4 |
| 7. | You see, do you think he plays basketball? | Average: 3.0 |
| 8. | Do you, you see, think he plays basketball? | Average: 2.9 |
| 9. | Do you think, you see, he plays basketball? | Average: 2.8 |
| 10. | Do you think, you see, that he plays basketball? | Average: 2.9 |
| 11. | Do you think he, you see, plays basketball? | Average: 3.4 |
| 12. | Do you think he plays, you see, basketball? | Average: 2.4 |
| 13. | She wanted for him, I expect, to go home. | Average: 2.8 |
| 14. | She wanted, I expect, for him to go home. | Average: 7.1 |
| 15. | She wanted for, I expect, him to go home. | Average: 3.3 |
| 16. | She wanted for him, I expect, to go home. | Average: 2.3 |
| 17. | She wanted for him to, I expect, go home. | Average: 4.7 |
| 18. | She wanted for him to go, I expect, home. | Average: 3.9 |
| 19. | She wanted for him to go home, I expect. | Average: 8.9 |
| 20. | I expect, she wanted for him to go home. | Average: 8.0 |

Survey 35:

| | | |
|---|---|---|
| 1. | John and Mary, you see, are coming to the party. | Average: 7.5 |
| 2. | You see, John and Mary are coming to the party. | Average: 8.7 |
| 3. | John, you see, and Mary are coming to the party. | Average: 4.0 |
| 4. | John and, you see, Mary, are coming to the party. | Average: 3.2 |
| 5. | John and Mary are, you see, coming to the party. | Average: 4.8 |
| 6. | John and Mary are coming, you see, to the party. | Average: 4.5 |
| 7. | John and Mary are coming to, you see, the party. | Average: 3.1 |
| 8. | John and Mary are coming to the, you see, party. | Average: 2.9 |
| 9. | The yard and the pool were in terrible condition, I hear. | Average: 8.8 |
| 10. | I hear, the yard and the pool were in terrible condition. | Average: 8.6 |
| 11. | The yard, I hear, and the pool were in terrible condition. | Average: 6.9 |
| 12. | The yard and, I hear, the pool were in terrible condition. | Average: 4.8 |
| 13. | The yard and the, I hear, pool were in terrible condition. | Average: 2.8 |
| 14. | The yard and the pool, I hear, were in terrible condition. | Average: 8.2 |
| 15. | The yard and the pool were, I hear, in terrible condition. | Average: 6.6 |
| 16. | The yard and the pool were in, I hear, terrible condition. | Average: 5.4 |
| 17. | The yard and the pool were in terrible, I hear, condition. | Average: 3.0 |
| 18. | The yard and the pool were in terrible condition, I hear. | Average: 7.8 |
| 19. | John came to the party and followed us to the afterparty, I believe. | Average: 8.5 |
| 20. | I believe, John came to the party and followed us to the afterparty. | Average: 8.4 |

Survey 36:

1.  John, I believe, came to the party and followed us to the afterparty. Average: 7.7
2.  John came, I believe, to the party and followed us to the afterparty. Average: 5.9
3.  John came to the party, I believe, and followed us to the afterparty. Average: 8.3
4.  John came to the party and, I believe, followed us to the afterparty. Average: 7.4
5.  John came to the party and followed, I believe, us to the afterparty. Average: 3.5
6.  John came to the party and followed us, I believe, to the afterparty. Average: 7.8
7.  You see, Ben talked all night and annoyed all the guests.              Average: 9.4
8.  Ben, you see, talked all night and annoyed all the guests.             Average: 7.8
9.  Ben talked all night and annoyed all the guests, you see.              Average: 8.6
10. Ben talked, you see, all night and annoyed all the guests.             Average: 4.0
11. Ben talked all night, you see, and annoyed all the guests.             Average: 7.8
12. Ben talked all night and, you see, annoyed all the guests.             Average: 6.0
13. Ben talked all night and annoyed, you know, all the guests.            Average: 3.8
14. He heard that Bill would leave and Susan would stay, you know.         Average: 7.9
15. He heard, you know, that Bill would leave and Susan would stay.        Average: 6.9
16. He heard that, you know, Bill would leave and Susan would stay.        Average: 6.1
17. You know, he heard that Bill would leave and Susan would stay.         Average: 8.4
18. He heard that Bill would leave, you know, and Susan would stay.        Average: 6.1
19. He heard that Bill would leave and, you know, Susan would stay.        Average: 6.2
20. He heard that Bill would leave and Susan, you know, would stay         Average: 5.4

Survey 37:

1. You see, Joe refused to answer the question because it was rude.   Average: 9.3
2. Joe, you see, refused to answer the question because it was rude.   Average: 8.0
3. Joe refused, you see, to answer the question because it was rude.   Average: 5.5
4. Joe refused to, you see, answer the question because it was rude.   Average: 4.5
5. Joe refused to answer, you see, the question because it was rude.   Average: 3.6
6. Joe refused to answer the question, you see, because it was rude.   Average: 8.5
7. Joe refused to answer the question because, you see, it was rude.   Average: 6.3
8. Joe refused to answer the question because it, you see, was rude.   Average: 4.4
9. Joe refused to answer the question because it was rude, you see.   Average: 8.4
10. You see, the cat escaped because it wanted to play outside.   Average: 8.5
11. The cat, you see, escaped because it wanted to play outside.   Average:7.3
12. The cat escaped, you see, because it wanted to play outside.   Average: 8.0
13. The cat escaped because, you see, it wanted to play outside.   Average: 5.3
14. The cat escaped because it, you see, wanted to play outside.   Average: 3.8
15. The cat escaped because it wanted, you see, to play outside.   Average: 4.7
16. The cat escaped because it <u>wanted </u>to, you see, play outside.   Average: 4.2
17. The cat escaped because it wanted to play, you see, outside.   Average: 3.6
18. The cat escaped because it wanted to play outside, you see.   Average: 8.7
19. The landlord turned off the electricity because, you know, there was an emergency.   Average: 6.7
20. The landlord turned off the electricity, you know, because there was an emergency.   Average: 7.3

Survey 38:

1.  Fuck, I left my book at home.                    Average: 9.2
2.  I, fuck, left my book at home.                    Average: 5.3
3.  I left, fuck, my book at home.                    Average: 3.2
4.  I left my, fuck, book at home.                    Average: 2.4
5.  I left my book, fuck, at home.                    Average: 3.7
6.  I left my book at home, fuck.                     Average: 9.2
7.  Damn, my ex-boyfriend is here.                    Average: 9.8
8.  My, damn, ex-boyfriend is here.                   Average: 4.5
9.  My damn ex-boyfriend is here.                     Average: 8.2
10. My ex-boyfriend, damn, is here.                   Average: 3.5
11. My ex-boyfriend is, damn, here.                   Average: 3.1
12. My ex-boyfriend is here, damn.                    Average: 9.4
13. Shit, I lost my keys.                             Average: 9.7
14. I, shit, lost my keys.                            Average: 4.6
15. I lost, shit, my keys.                            Average: 2.9
16. I lost my, shit, keys.                            Average: 2.3
17. Damn it, my ex-boyfriend is here.                 Average: 9.7
18. My, damn it, ex-boyfriend is here.                Average: 4.3
19. My ex-boyfriend is here, damn it.                 Average: 9.7
20. Fucking hell, my ex-boyfriend is here.            Average: 9.1

Survey 39:

| | | |
|---|---|---|
| 1. | Son of a bitch, my ex-boyfriend is here. | Average: 9.6 |
| 2. | My ex-boyfriend is here, son of a bitch. | Average: 9.2 |
| 3. | Fucking hell, I lost my keys. | Average: 9.3 |
| 4. | Fucking shit, I can't find my phone. | Average: 8.2 |
| 5. | I can't find my phone, fucking shit. | Average: 7.3 |
| 6. | Fuck, it's raining. | Average: 9.5 |
| 7. | It's raining, fuck. | Average: 8.8 |
| 8. | It's, fuck, raining. | Average: 3.4 |
| 9. | It's, fucking shit, raining. | Average: 2.9 |
| 10. | It's fucking raining. | Average: 9.3 |
| 11. | Shit, it looks like rain. | Average: 9.4 |
| 12. | It looks like rain, shit. | Average: 9.2 |
| 13. | Hell, that it was a bad idea is obvious now. | Average: 8.1 |
| 14. | That it was a bad idea is obvious now, hell. | Average: 5.2 |
| 15. | That it was a bad idea, hell, is obvious now. | Average: 4.1 |
| 16. | That it was a bad idea, hell, is obvious now. | Average: 4.2 |
| 17. | Hell, dogs I love but cats I can't stand. | Average: 5.1 |
| 18. | Dogs I love but cats I can't stand, hell. | Average: 3.4 |
| 19. | Fuck, John I like, but Susan I hate. | Average: 6.9 |
| 20. | John I like, but Susan I hate, fuck. | Average: 6.7 |

Survey 40:

1.  Shit, Mary, your brother's been drinking.                                    Average: 9.2
2.  Shit, Mary, your brother may have been drinking.                             Average: 8.9
3.  Mary, shit, your brother may have been drinking.                             Average: 6.7
4.  Mary, your brother, shit, may have been drinking.                            Average: 4.1
5.  Mary, your brother may, shit, have been drinking.                            Average: 3.0
6.  Mary, your brother may have, shit, been drinking.                            Average: 3.3
7.  Mary, your brother may have been, shit, drinking.                            Average: 4.1
8.  Mary, your brother may have been drinking, shit.                             Average: 7.1
9.  Son of a bitch, Mary, your sister has been drinking.                         Average: 9.0
10. Mary, your sister has been drinking, son of a bitch.                         Average: 7.5
11. Son of a bitch, your sister has been drinking, Mary.                         Average: 8.7
12. Your sister has been drinking, son of a bitch, Mary.                         Average: 7.9
13. Fuck, I forgot to do the assignment last night.                             Average: 9.7
14. I forgot to do the assignment last night, fuck.                             Average: 9.3
15. I forgot to do the assignment, fuck, last night.                            Average: 2.9
16. I forgot to do the assignment, fuck, on my computer last night.            Average: 3.1
17. I forgot to do the assignment on my computer, fuck, last night.            Average: 2.6
18. I forgot, fuck, to do the assignment on my computer last night.            Average: 4.1
19. I forgot to do, fuck, the assignment on my computer last night.            Average: 3.5
20. I forgot to, fuck, do the assignment on my computer last night.            Average: 4.1

Survey 41:

| | | |
|---|---|---|
| 1. | Shit, Mary, you see, I forgot to do my assignment. | Average: 7.3 |
| 2. | Shit, you see, Mary, I forgot to do my assignment. | Average: 9.2 |
| 3. | Mary, you see, shit, I forgot to do my assignment. | Average: 6.2 |
| 4. | You see, Mary, shit, I forgot to do my assignment. | Average: 6.9 |
| 5. | You see, shit, Mary, I forgot to do my assignment. | Average: 6.8 |
| 6. | Shit, you see, I forgot to do my assignment, Mary. | Average: 7.9 |
| 7. | Mary, you see, I forgot to do my assignment, shit. | Average: 6.1 |
| 8. | Mary, shit, you see, I forgot to do my assignment. | Average: 7.2 |
| 9. | Shit, Mary, I forgot, you see, to do my assignment. | Average: 5.0 |
| 10. | Shit, I forgot, you see, Mary, to do my assignment. | Average: 5.4 |
| 11. | Shit, I forgot, you see, Mary, to do my assignment. | Average: 4.3 |
| 12. | You see, Mary, shit, I forgot to do my assignment. | Average: 6.0 |
| 13. | You see, shit, Mary, I forgot to do my assignment. | Average: 6.3 |
| 14. | I forgot, shit, you see, Mary, to do my assignment. | Average: 2.5 |
| 15. | I forgot to do my assignment, you see, Mary, shit. | Average: 4.2 |
| 16. | Shit, Mary, I forgot to do my assignment, you see. | Average: 6.7 |
| 17. | Shit, I forgot, you see, to do my assignment, Mary. | Average: 4.6 |
| 18. | Mary, shit, I forgot to do my assignment, you see. | Average: 6.1 |
| 19. | You see, Mary, I forgot to do my assignment, shit. | Average: 6.5 |
| 20. | You see, Mary, I forgot to do my assignment, shit. | Average: 7.3 |

Survey 42:

1. Fuck, Steve gave him bad directions and he got lost.                                              Average: 8.7
2. Steve gave him bad directions and, fuck, he got lost.                                              Average: 6.6
3. Steve gave him bad directions, fuck, and he got lost.                                              Average: 4.9
4. Steve gave him bad directions, fuck, and he got lost.                                              Average: 4.9
5. Steve gave him bad directions and he got lost, fuck.                                               Average: 7.8
6. Fuck, John and Mary got lost because Steve gave them bad          Average: 8.5
   directions
7. John and Mary, fuck, got lost because Steve gave them bad          Average: 2.9
   directions.
8. John and Mary got lost, fuck, because Steve gave them bad          Average: 4.7
   directions.
9. John and Mary got lost because, fuck, Steve gave them bad          Average: 4.8
   directions.
10. John and Mary got lost because Steve gave them bad directions,          Average: 8.3
   fuck.
11. Shit, John got lost because Steve couldn't read the map and gave          Average: 9.1
   him bad directions.
12. John got lost, shit, because Steve couldn't read the map and gave          Average: 5.4
   him bad directions.
13. John got lost because, shit, Steve couldn't read the map and gave          Average: 5.0
   him bad directions.
14. John got lost because Steve couldn't read the map, shit, and gave          Average: 3.3
   him bad directions.
15. John got lost because Steve couldn't read the map, and, shit, gave          Average: 4.4
   him bad directions.
16. John, shit, got lost because Steve couldn't read the map and gave          Average: 3.5
   him bad directions.
17. John, shit, and Mary, got lost because Steve couldn't read the map          Average: 2.6
   and gave him bad directions.
18. John and, shit, Mary, got lost because Steve couldn't read the map          Average: 2.5
   and gave him bad directions.
19. Shit, John and Mary, fuck, got lost because Steve couldn't read          Average: 3.5
   the map and gave him bad directions.
20. Shit, John, fuck, and Mary got lost because Steve couldn't read          Average: 2.9
   the map and gave him bad directions.

Survey 43:

1. Hell, your cat got out because you left the window open.  Average: 8.5
2. Hell, your cat got out, Karen, because you left the window open.  Average: 7.6
3. Your cat, hell, got out because you left the window open, Karen.  Average: 3.8
4. Your cat got out, hell, because you left the window open.  Average: 4.3
5. Your cat got out because you left the window open, hell.  Average: 5.5
6. Your cat got out, because, hell, you left the window open.  Average: 6.1
7. Your cat got out, because, hell, you left the window open, Karen.  Average: 6.4
8. Your cat got out because you left the window open, hell, Karen.  Average: 5.6
9. Fuck, Karen, you beautiful genius, I need to borrow your notes.  Average: 6.9
10. Karen, you beautiful genius, fuck, I need to borrow your notes.  Average: 4.6
11. Fuck, I need to borrow your notes, Karen, you beautiful genius.  Average: 8.2
12. Fuck, I need to borrow your notes, you beautiful genius, Karen.  Average: 4.9
13. Fuck, Karen, I need to borrow your notes, you beautiful genius.  Average: 7.7
14. Karen, fuck, I need to borrow your notes, you beautiful genius.  Average: 6.0
15. Karen, you beautiful genius, I need to borrow your notes, fuck.  Average: 4.1
16. You beautiful genius, Karen, I need to borrow your notes, fuck.  Average: 3.7
17. Fuck, Karen, you beautiful genius, you see, I need to borrow your notes.  Average: 6.2
18. Fuck, Karen, you beautiful genius, I need to borrow your notes, you see.  Average: 6.2
19. You see, fuck, Karen, you beautiful genius, I need to borrow your notes.  Average: 4.6
20. You see, Karen, you beautiful genius, I need to borrow your notes, fuck.  Average: 4.3

Survey 44:

1. Karen, you beautiful genius, I need to borrow your notes, you see. Average: 7.5
2. Hell, you got fired because you called your boss a moron. Average: 9.2
3. You got fired because you called your boss a moron, hell, to his face. Average: 5.6
4. You got fired because you called your boss a moron to his face, hell. Average: 5.6
5. You got fired because you called your boss a moron, hell, to his face in front of his boss. Average: 5.3
6. You got fired because you called your boss a moron to his face, hell, in front of his boss. Average: 5.9
7. You got fired because you called your boss a moron to his face in front of his boss, hell. Average: 6.6
8. Damn, Karen, that is an awful story. Average: 9.6
9. Karen, damn, that is an awful story. Average: 8.5
10. That, damn, Karen, is an awful story. Average: 6.3
11. Damn, do you know where the spare paper is? Average: 8.2
12. Do you know where, damn, the spare paper is? Average: 3.3
13. Do you know where the spare paper is, damn? Average: 5.1
14. Do you, damn, know where the spare paper is? Average: 3.0
15. Crap, I don't know which car is hers. Average: 9.4
16. I don't know which car is hers, crap. Average: 9.0
17. I don't, crap, know which car is hers. Average: 3.1
18. I don't know, crap, which car is hers. Average: 3.5
19. I don't know which, crap, car is hers. Average: 2.7
20. I don't know which car, crap, is hers. Average: 3.1

Survey 45:

1. Damn it, I didn't know who the boss was, shit.  Average: 8.8
2. Son of a bitch, I had no idea that the party was this weekend.  Average: 9.4
3. I had no idea, son of a bitch, that the party was this weekend.  Average: 4.4
4. I had no idea that, son of a bitch, the party was this weekend.  Average: 3.1
5. I had no idea that the party was this weekend, son of a bitch.  Average: 9.0
6. Damn it, I forgot that we have that paper due on Monday.  Average: 9.8
7. I forgot, damn it, that we have that paper due on Monday.  Average: 5.5
8. I forgot that, damn it, we have that paper due on Monday.  Average: 4.0
9. I forgot that we, damn it, have that paper due on Monday.  Average: 3.6
10. I forgot that we have that paper due on Monday, damn it.  Average: 9.4
11. I forgot that we have that paper due on Monday, damn it.  Average: 8.9
12. Shit, I didn't realize that I couldn't take both classes.  Average: 9.7
13. I didn't realize, shit, that I couldn't take both classes.  Average: 3.9
14. I didn't realize that, shit, I couldn't take both classes.  Average: 3.6
15. I didn't realize that I couldn't, shit, take both classes.  Average: 2.6
16. I didn't realize that I couldn't take both classes, shit.  Average: 8.6
17. Fuck, I can't remember what I was supposed to do, shit.  Average: 8.5
18. Fuck, I can't remember, shit, what I was supposed to do.  Average: 3.7
19. Fuck, I can't remember what I was supposed, shit, to do.  Average: 2.9
20. Fuck, I can't, damn it, remember what I was supposed, shit, to do.  Average: 2.2

Survey 46:

| | | |
|---|---|---|
| 1. | Fuck, I can't remember what I was supposed to, shit, do. | Average: 4.2 |
| 2. | Fuck, I can't remember, damn it, what I was supposed to do, shit. | Average: 4.6 |
| 3. | Fuck, I can't, damn it, remember what I was supposed to do, shit. | Average: 3.9 |
| 4. | Fuck, I can't, damn it, remember what, shit, I was supposed to do. | Average: 3.3 |
| 5. | Fuck, I can't, damn it, remember what, shit, I was supposed to do, son of a bitch. | Average: 3.3 |
| 6. | Son of a bitch, I can't, fuck, remember what, damn it, I was supposed to do, shit. | Average: 2.3 |
| 7. | You see, Steve, I think it will rain. | Average: 7.8 |
| 8. | You see, Steve, I think it will rain. | Average: 9.7 |
| 9. | You see, I, Steve, think it will rain. | Average: 2.3 |
| 10. | You see, I think it will rain, Steve. | Average: 8.0 |
| 11. | Steve, I, you see, think it will rain. | Average: 2.8 |
| 12. | Steve, I think it will rain, you see. | Average: 7.1 |
| 13. | Incidentally, Steve, I think it will rain, you see. | Average: 2.3 |
| 14. | Incidentally, Steve, I think it will rain, you see. | Average: 5.9 |
| 15. | You see, Steve, I think it will rain, incidentally. | Average: 4.8 |
| 16. | You see, Steve, I think it will rain, incidentally. | Average: 6.0 |
| 17. | Shit, you see, Steve, I think it will rain, incidentally. | Average: 4.2 |
| 18. | Shit, you see, Steve, I think it will rain, incidentally. | Average: 5.4 |
| 19. | Shit, incidentally, Steve, I think it will rain, you see. | Average: 5.1 |
| 20. | Incidentally, Steve, I think it will rain, you see, shit. | Average: 4.3 |

Survey 47:

1.  Apparently, you know, the dog is not friendly.                          Average: 7.9
2.  Apparently, you know, Steve, the dog is not friendly.                    Average: 6.5
3.  Shit, apparently, you know, Steve, the dog is not friendly.              Average: 5.5
4.  Apparently, you know, Steve, shit, the dog is not friendly.             Average: 4.0
5.  Apparently, shit, Steve, you know, the dog is not friendly.             Average: 4.1
6.  Apparently, Steve, shit, you know, the dog is not friendly.             Average: 4.3
7.  Apparently, you know, Steve, shit, the dog is not friendly.             Average: 4.6
8.  You know, Steve, shit, apparently, the dog is not friendly.             Average: 5.0
9.  You know, Steve, apparently, shit, the dog is not friendly.             Average: 5.1
10. You know, shit, Steve, apparently, the dog is not friendly.             Average: 6.2
11. You know, shit, apparently, Steve, the dog is not friendly.             Average: 5.8
12. Steve, shit, apparently, you know, the dog is not friendly.             Average: 5.6
13. Steve, shit, you know, apparently, the dog is not friendly.             Average: 6.0
14. Steve, you know, shit, apparently, the dog is not friendly.             Average: 5.2
15. Steve, you know, apparently, shit, the dog is not friendly.             Average: 5.1
16. Steve, apparently, shit, you know, the dog is not friendly.             Average: 4.9
17. Steve, apparently, you know, shit, the dog is not friendly.             Average: 6.0
18. Incidentally, it turns out, you see, Susan hated that cat.              Average: 7.5
19. It turns out, incidentally, you see, Susan hated that cat.              Average: 7.3
20. You see, it turns out, incidentally, Susan hated that cat.             Average: 8.1

Survey 48:

| | | |
|---|---|---|
| 1. | Steve, incidentally, it turns out, Susan hated that cat. | Average: 7.2 |
| 2. | Incidentally, Steve, it turns out, Susan hated that cat. | Average: 7.8 |
| 3. | Incidentally, Steve, you know, it turns out, Susan hated that cat. | Average: 6.7 |
| 4. | Incidentally, Steve, it turns out, Susan hated that cat, I hear. | Average: 6.4 |
| 5. | Incidentally, it turns out, Susan hated that cat, Steve. | Average: 7.8 |
| 6. | Incidentally, Steve, you naïve fool, Susan hated that cat. | Average: 7.8 |
| 7. | Incidentally, Steve, you naïve fool, Susan hated that cat, it turns out. | Average: 6.0 |
| 8. | Incidentally, Steve, you naïve fool, you know, it turns out, Susan hated that cat. | Average:5.6 |
| 9. | Incidentally, Susan hated that cat, Steve, you naïve fool. | Average: 7.6 |
| 10. | Incidentally, Steve, you naïve fool, Susan hated that cat, I hear. | Average: 6.3 |
| 11. | Incidentally, Steve, you naïve fool, it turns out, Susan hated that cat, I hear. | Average: 6.2 |
| 12. | Shit, it turns out, Karen, apparently, the store is closing. | Average: 6.5 |
| 13. | It turns out, shit, apparently, Karen, the store is closing. | Average: 5.1 |
| 14. | Shit, Karen, it turns out, fuck, the store is closing. | Average: 6.1 |
| 15. | Shit, Karen, fuck, it turns out, the store is closing. | Average: 6.8 |
| 16. | Shit, it turns out, Karen, fuck, the store is closing. | Average: 5.9 |
| 17. | Son of a bitch, you see, shit, Mary, I forgot to feed your fish. | Average: 6.2 |
| 18. | Son of a bitch, you see, it turns out, Mary, I forgot to feed your fish. | Average: 7.6 |
| 19. | Son of a bitch, it turns out, Mary, you see, I forgot to feed your fish. | Average: 6.7 |
| 20. | Son of a bitch, Mary, you see, it turns out, I forgot to feed your fish. | Average: 8.2 |

Survey 49:

1.  Incidentally, apparently, Karen read your book.                  Average: 5.9
2.  Apparently, incidentally, Karen read your book.                  Average: 5.4
3.  Incidentally, you see, apparently, Karen read your book.         Average: 5.0
4.  By the way, apparently, Karen read your book.                    Average: 8.7
5.  By the way, you see, apparently, Karen read your book.           Average: 6.2
6.  Apparently, by the way, you see, Karen read your book.           Average: 5.4
7.  Apparently, you see, by the way, Karen read your book.           Average: 4.0
8.  Amanda, shit, you know, Karen read your book.                    Average: 7.2
9.  You know, Amanda, shit, Karen read your book.                    Average: 6.6
10. Amanda, you know, shit, Karen read your book.                    Average: 6.5
11. Shit, Amanda, you know, Karen read your book.                    Average: 6.7
12. Shit, apparently, Amanda, Karen read your book.                  Average: 7.8
13. Shit, Amanda, apparently, Karen read your book.                  Average: 7.4
14. Shit, Amanda, apparently, Karen read your book.                  Average: 9.1
15. Amanda, it turns out, shit, Karen read your book.                Average: 6.6
16. Amanda, shit, it turns out, Karen read your book.                Average: 7.2
17. You see, it turns out, shit, Karen read your book.               Average: 6.2
18. You see, it turns out, Amanda, Karen read your book.             Average: 6.6
19. You see, Amanda, it turns out, Karen read your book.             Average: 8.5
20. You see, shit, it turns out, Karen read your book.               Average: 7.2

Survey 50:

| | | |
|---|---|---|
| 1. | You know, shit, Steve, Amanda hates chicken. | Average: 7.1 |
| 2. | You know, Steve, shit, Amanda hates chicken. | Average: 6.9 |
| 3. | Shit, you know, Steve, Amanda hates chicken. | Average: 7.9 |
| 4. | You know, Steve, apparently, Amanda hates chicken. | Average: 8.6 |
| 5. | Shit, apparently, you know, Amanda hates chicken. | Average: 7.0 |
| 6. | Steve, you know, shit, Amanda hates chicken. | Average: 5.9 |
| 7. | Steve, you know, apparently, Amanda hates chicken. | Average: 7.4 |
| 8. | Steve, shit, you know, Amanda hates chicken. | Average: 6.8 |
| 9. | Steve, apparently, you know, Amanda hates chicken. | Average: 7.0 |
| 10. | Apparently, Steve, shit, Amanda hates chicken. | Average: 5.3 |
| 11. | Apparently, Steve, you know, Amanda hates chicken. | Average: 5.8 |
| 12. | Apparently, you know, Steve, Amanda hates chicken. | Average: 5.6 |
| 13. | Apparently, you know, shit, Amanda hates chicken. | Average: 4.7 |
| 14. | Apparently, shit, Steve, Amanda hates chicken. | Average: 5.3 |
| 15. | Apparently, shit, you know, Amanda hates chicken. | Average: 5.6 |
| 16. | Fuck, Karen, it turns out, Fred quit his job. | Average: 8.6 |
| 17. | Fuck, you see, it turns out, Fred quit his job. | Average: 8.8 |
| 18. | Fuck, it turns out, you see, Fred quit his job. | Average: 6.7 |
| 19. | Fuck, Karen, it turns out, Fred quit his job. | Average: 8.8 |
| 20. | You see, Karen, it turns out, Fred quit his job. | Average: 9.1 |

Survey 51:

1. You see, Karen, fuck, Fred quit his job.      Average: 6.7
2. You see, it turns out, Karen, Fred quit his job.      Average: 8.6
3. You see, it turns out, fuck, Fred quit his job.      Average: 6.4
4. You see, fuck, Karen, Fred quit his job.      Average: 5.5
5. You see, fuck, it turns out, Fred quit his job.      Average: 6.2
6. Karen, you see, fuck, Fred quit his job.      Average: 6.8
7. Karen, you see, it turns out, Fred quit his job.      Average: 8.2
8. Karen, fuck, you see, Fred quit his job.      Average: 6.4
9. Karen, fuck, it turns out, Fred quit his job.      Average: 6.9
10. Karen, it turns out, fuck, Fred quit his job.      Average: 6.2
11. Karen, it turns out, you see, Fred quit his job.      Average: 7.8
12. It turns out, Karen, fuck, Fred quit his job.      Average: 5.3
13. It turns out, Karen, you see, Fred quit his job.      Average: 7.6
14. It turns out, you see, Karen, Fred quit his job.      Average: 6.9
15. It turns out, you see, fuck, Fred quit his job.      Average: 5.6
16. It turns out, fuck, Karen, Fred quit his job.      Average: 6.2
17. It turns out, fuck, you see, Fred quit his job.      Average: 5.7
18. Fucking shit, hell, Fred quit his job.      Average: 6.4
19. You moron, Steve, Fred quit his job.      Average: 8.0
20. You see, I hear, Fred quit his job.      Average: 7.3

Survey 52:

| | | |
|---|---|---|
| 1. | John hated that orange, Susan, cat. | Average: 4.4 |
| 2. | Alex bought that old, Katie, house. | Average: 3.4 |
| 3. | It, John, seems like you know how to play that banjo. | Average: 4.4 |
| 4. | She, Fred, is not sure which paper she should write. | Average: 4.9 |
| 5. | He, Madeline, wanted to know which book to buy. | Average: 5.5 |
| 6. | Katie, I will be going to Australia by ship on vacation this summer. | Average: 9.4 |
| 7. | George, she is waiting for you in the rain at the bus stop on Main street. | Average: 9.6 |
| 8. | I am leaving, Katie, for Australia by ship in two weeks. | Average: 7.6 |
| 9. | A: Where can I find George? B: He is sitting on the bench, Katie, by the fountain near the gate. | Average: 8.5 |
| 10. | Erin is buying coffee down the street, George, with Karen at the corner store. | Average: 7.4 |
| 11. | Erin is buying coffee down the street with Karen, George, at the corner store. | Average: 7.0 |
| 12. | Susan and, Fred, your mother will be visiting next week. | Average: 5.9 |
| 13. | Karen and, Matthew, Katie will be at the party. | Average: 4.8 |
| 14. | The dog, Susan, ate all the chicken and knocked over the kitchen table. | Average: 6.4 |
| 15. | The dog ate all the chicken, Susan, and knocked over the kitchen table. | Average: 8.1 |
| 16. | Mary went to the store, George, and picked up our dry cleaning. | Average: 6.1 |
| 17. | The dog ate all the chicken and, Susan, knocked over the kitchen table. | Average: 3.5 |
| 18. | Mary went to the store and, George, picked up our dry cleaning. | Average: 4.0 |
| 19. | The dog ate all the food and the cat destroyed the curtains, Fred. | Average: 8.7 |
| 20. | The dog, Fred, ate all the food and the cat destroyed the curtains. | Average: 6.1 |

Survey 53:

1. The dog ate all the food and the cat, Fred, destroyed the curtains.   Average: 6.9
2. The dog ate all the food and, Fred, the cat destroyed the curtains.   Average: 4.7
3. Erin, I heard that your sister is in Europe.   Average: 9.6
4. I heard that your sister is in Europe, Erin.   Average: 8.9
5. I, Fred, saw your cousin painting his house purple.   Average: 5.0
6. Karen, Fred, heard that you wrote a song about her.   Average: 3.4
7. He was hoping, Karen, for you to like the song he wrote.   Average: 6.9
8. She, apparently, is allergic to peanuts.   Average: 8.5
9. He was hoping, apparently, for Karen to like the song he wrote.   Average: 8.4
10. He did not want, by the way, for George to know about the book.   Average: 7.8
11. He did not want, by the way, George to know about the book.   Average: 6.4
12. He was hoping, apparently, Karen to like the song he wrote.   Average: 5.3
13. She was worried, incidentally, George would be angry.   Average: 7.5
14. The landlord turned off the electricity, apparently, there was   Average: 7.3
   an emergency.
15. George was angry, apparently, the book was published.   Average: 6.8
16. That George was angry was, by the way, clear.   Average: 5.1
17. That George was angry was, apparently, clear.   Average: 5.4
18. For George to be, apparently, angry was expected.   Average: 3.5
19. For George to be angry was, apparently, expected.   Average: 6.5
20. For George to forgive, by the way, Fred would take a lot.   Average: 3.4

Survey 54:

1. By the way, I'm not sure which book Fred recommended.                     Average: 9.5
2. I, by the way, am not sure which book Fred recommended.                   Average: 7.3
3. I am not sure, by the way, which book Fred recommended.                   Average: 7.2
4. I am not sure which, by the way, book Fred recommended.                   Average: 3.7
5. I am not sure which book, by the way, Fred recommended.                   Average: 5.4
6. I am not sure which book Fred recommended, by the way.                    Average: 8.4
7. Apparently, Karen was not sure who told her the story.                    Average: 9.5
8. Karen, apparently, was not sure who told her the story.                   Average: 8.2
9. Karen was not sure, apparently, who told her the story.                   Average: 6.9
10. Karen was not sure who, apparently, told her the story.                  Average: 4.6
11. Karen was not sure who told her the story, apparently.                   Average: 8.7
12. Katie hated the circus because she's afraid of clowns,                   Average: 6.8
    incidentally.
13. George was angry because Fred had written the book, apparently.          Average: 7.9
14. The dog barked because he, apparently, hates the mailman.                Average: 7.5
15. The dog barked because <u>he</u>, apparently, hates the mailman.         Average: 7.9
16. Katie hated the circus because she, incidentally, is afraid of          Average: 6.4
    clowns.
17. Katie hated the circus because <u>she</u>, incidentally, is afraid of   Average: 6.9
    clowns.
18. George was hoping, by the way, for the book to be forgotten.             Average: 8.0
19. Fred wanted, apparently, for Karen to like the song.                     Average: 7.0
20. Fred was proud, by the way, that Karen liked the song.                   Average: 7.7

Survey 55:

| | | |
|---|---|---|
| 1. | George was angry, apparently, that the book was published. | Average: 8.4 |
| 2. | Fred forgot, by the way, that your dog needed food. | Average: 8.3 |
| 3. | George was hoping for, by the way, the book to be forgotten. | Average: 5.6 |
| 4. | Fred wanted for, apparently, Karen to like the song. | Average: 4.3 |
| 5. | Fred was proud that, by the way, Karen liked the song. | Average: 4.3 |
| 6. | Karen had heard that, apparently, George was angry. | Average: 6.1 |
| 7. | Fred had hoped that, incidentally, George would forgive him. | Average: 6.5 |
| 8. | Katie heard that George was angry with Fred, apparently, and Karen was avoiding Susan. | Average: 8.0 |
| 9. | George was angry with Fred, apparently, and Karen was avoiding Susan. | Average: 8.9 |
| 10. | George was angry with Fred and, apparently, Karen was avoiding Susan. | Average: 8.3 |
| 11. | Katie heard that George was angry with Fred and, apparently, Karen was avoiding Susan. | Average: 8.0 |
| 12. | Fred saw Karen see Susan, incidentally, and hide behind a door. | Average: 4.8 |
| 13. | Fred saw Karen see Susan and, incidentally, hide behind a door. | Average: 4.7 |
| 14. | George hoped that Fred would apologize, apparently, and destroy the book. | Average: 6.9 |
| 15. | George hoped that Fred would apologize and, apparently, destroy the book. | Average: 6.9 |
| 16. | Apparently, George hoped that Fred would apologize and destroy the book. | Average: 9.3 |
| 17. | George hoped that Fred would apologize and destroy the book, apparently. | Average: 8.1 |
| 18. | Karen wanted for Fred, apparently, to apologize to George. | Average: 6.4 |
| 19. | John, it looks like it will rain. | Average: 9.2 |
| 20. | George, it seems like you are angry about something. | Average: 9.7 |

Survey 56:

| | | |
|---|---|---|
| 1. | It seems, George, that Fred is sorry. | Average: 8.3 |
| 2. | That it snowed last night is unfortunate. | Average: 7.0 |
| 3. | Your dog, I love, but your cat, Fred, I can't stand. | Average: 7.0 |
| 4. | I am not sure, Fred, she liked your song. | Average: 5.8 |
| 5. | He was hoping for, Karen, you to like the song. | Average: 4.0 |
| 6. | He, Katie, could have been a famous actor. | Average: 5.6 |
| 7. | He could, Katie, have been a famous actor. | Average: 6.1 |
| 8. | He could have, Katie, been a famous actor. | Average: 5.0 |
| 9. | Karen was not sure which, Fred, song you wrote. | Average: 2.4 |
| 10. | Karen was not sure <u>which</u>, Fred, song you wrote. | Average: 2.5 |
| 11. | I was wondering why, George, you are so angry. | Average: 5.6 |
| 12. | I was wondering <u>why</u>, George, you are so angry. | Average: 6.8 |
| 13. | Karen was happy because, Katie, the song was beautiful. | Average: 4.0 |
| 14. | Karen was happy <u>because</u>, Katie, the song was beautiful. | Average: 5.1 |
| 15. | Susan knows which truck, incidentally, is ours. | Average: 7.7 |
| 16. | He, apparently, could have been a famous actor. | Average: 8.6 |
| 17. | John, incidentally, might have been at the same school. | Average: 8.4 |
| 18. | Apparently, he could have been a famous actor. | Average: 9.8 |
| 19. | I think John is going to be there because, it turns out, Susan is coming. | Average: 8.1 |
| 20. | I think John is going to be there, it turns out, because Susan is coming. | Average: 7.2 |

Survey 57:

1. By the way, I am going to Australia by ship on vacation
   this summer.                                                    Average: 9.0
2. Apparently, Susan was waiting for him at the bus stop for three  Average: 9.4
   hours in the rain.
3. I, by the way, am going to Australia by ship on vacation         Average: 7.5
   this summer.
4. Susan, apparently, was waiting for him at the bus stop for three Average: 7.8
   hours in the rain.
5. George, apparently, is angry with Fred and Karen is avoiding     Average: 7.5
   Susan.
6. I, by the way, heard that George is angry with Fred and Karen    Average: 7.1
   is avoiding Susan.
7. George is, apparently, angry with Fred and Karen is avoiding     Average: 6.3
   Susan.
8. I heard, by the way, that George is angry with Fred and Karen    Average: 7.5
   is avoiding Susan.
9. Apparently, George is angry with Fred and Karen is avoiding      Average: 9.2
   Susan.
10. By the way, I heard that George is angry with Fred and Karen    Average: 8.9
    is avoiding Susan.
11. George is angry with Fred and Karen is avoiding Susan,          Average: 7.1
    apparently.
12. I heard that George is angry with Fred and Karen is avoiding    Average: 6.5
    Susan, by the way.
13. Katie is at the work, by the way, and Fred is at the bookstore.  Average: 7.3
14. Green, I like, but, as it turns out, pink, I hate.              Average: 6.6
15. Green, as it turns out, I like, but pink, I hate.              Average: 6.4
16. Green, I like, but pink, as it turns out, I hate.              Average: 6.7
17. He forgot which piano, as it turns out, is broken.            Average: 4.5
18. He forgot which piano, apparently, is broken.                 Average: 5.4
19. As it turns out, John might have been taking dance lessons.    Average: 8.8
20. I, incidentally, will be going to Australia by ship on vacation Average: 7.5
    this summer.

Survey 58:

| | | |
|---|---|---|
| 1. | Green, I like, but, you know, pink, I hate. | Average: 5.6 |
| 2. | There, you know, might be some problems. | Average: 5.1 |
| 3. | There, you see, could be a storm coming. | Average: 5.1 |
| 4. | That George was angry was, you see, clear. | Average: 4.0 |
| 5. | You know, I'm not sure which piano is broken. | Average: 9.0 |
| 6. | You see, Karen doesn't remember which book she recommended. | Average: 7.9 |
| 7. | I'm not sure which piano is broken, you know. | Average: 7.1 |
| 8. | Karen doesn't remember which book she recommended, you see. | Average: 7.5 |
| 9. | I, you see, am not sure which piano is broken. | Average: 4.1 |
| 10. | Karen, you know, doesn't remember which book she recommended. | Average: 5.0 |
| 11. | Susan, I believe, knows where the party is. | Average: 8.0 |
| 12. | I am not sure which, you see, piano is broken. | Average: 3.6 |
| 13. | Karen doesn't remember which, you know, book she recommended. | Average: 4.1 |
| 14. | Susan knows where, I believe, the party is. | Average: 5.4 |
| 15. | I am not sure which piano, you see, is broken. | Average: 5.0 |
| 16. | Karen doesn't remember which book, you know, she recommended. | Average: 4.3 |
| 17. | You know, John may have been taking dance lessons. | Average: 9.0 |
| 18. | You see, Susan could have gone on the camping trip. | Average: 8.4 |
| 19. | John, you know, may have been taking dance classes. | Average: 6.1 |
| 20. | Susan, you see, could have gone on the camping trip. | Average: 6.9 |

Survey 59:

1. You see, Susan went camping in the mountains last weekend with Karen.  Average: 8.6
2. You know, John wanted to see the movie at the premiere on Saturday with everyone.  Average: 9.0
3. Susan, you see, went camping in the mountains last weekend with Karen.  Average: 6.9
4. John wanted to see the movie, you know, at the premiere on Saturday with everyone.  Average: 6.1
5. George was waiting, I believe, at the movie theater on Saturday for three hours.  Average: 6.9
6. Susan went camping, you see, in the mountains last weekend with Karen.  Average: 6.3
7. John wanted, you know, to see the movie at the premiere on Saturday with everyone.  Average: 5.0
8. George was waiting, I believe, at the movie theater on Saturday for three hours.  Average: 6.7
9. Susan went camping in the mountains, you see, last weekend with Karen.  Average: 5.6
10. John wanted to see the movie at the premiere, you know, on Saturday with everyone.  Average: 5.5
11. George was waiting at the movie theater on Saturday, I believe, for three hours.  Average: 6.5
12. Susan went camping in the mountains last weekend, you see, with Karen.  Average: 5.5
13. George, I believe, and Susan are coming to the party.  Average: 6.2
14. John, you know, and Karen might be late.  Average: 4.4
15. George and Susan are, I believe, coming to the party.  Average: 6.3
16. George and Susan are coming, I believe, to the party.  Average: 5.9
17. Susan went camping and, I hear, got stuck in traffic.  Average: 6.6
18. Karen was late and, you know, didn't bring anything.  Average: 5.5
19. Susan set up her tent, you see, next to the fire.  Average: 6.0
20. George lost his keys, I hear, in the woods.  Average: 6.9

Survey 60:

| | | |
|---|---|---|
| 1. | You see, George lost his keys and Susan overslept. | Average: 8.7 |
| 2. | I hear, Karen is working, but John will come to the party. | Average: 6.8 |
| 3. | George lost his keys and Susan overslept, you see. | Average: 7.9 |
| 4. | Karen is working, but John will come to the party, I hear. | Average: 7.9 |
| 5. | George, you see, lost his keys, and Susan overslept. | Average: 6.7 |
| 6. | Karen, I hear, is working, but John will come to the party. | Average: 7.9 |
| 7. | Fred, you see, said that George lost his keys and Susan overslept. | Average: 6.1 |
| 8. | Fred said, you see, that George lost his keys and Susan overslept. | Average: 4.4 |
| 9. | George lost his keys and Susan, I believe, overslept. | Average: 7.6 |
| 10. | Karen is working, but John, I hear, will come to the party. | Average: 5.0 |
| 11. | George lost his keys and, you see, Susan overslept. | Average: 4.7 |
| 12. | Karen is working, but, I hear, John will come to the party. | Average: 6.1 |
| 13. | Karen is working, but, you know, John will come to the party. | Average: 5.3 |
| 14. | Karen, shit, can't come because she is working late tonight. | Average: 4.2 |
| 15. | George, fuck, said he lost his keys. | Average: 3.6 |
| 16. | Susan, son of a bitch, said that Fred can't find your dog. | Average: 3.5 |
| 17. | Karen can't come because she, shit, is working late tonight. | Average: 5.0 |
| 18. | George said he, fuck, lost his keys. | Average: 4.3 |
| 19. | Susan said that Fred, son of a bitch, can't find your dog. | Average: 4.6 |
| 20. | Susan said, shit, that Fred can't find your dog. | Average: 4.9 |

Survey 61:

| | | |
|---|---|---|
| 1. | George said, fuck, that he lost his keys. | Average: 5.4 |
| 2. | Karen can't come, shit, because she is working late tonight. | Average: 4.7 |
| 3. | Susan wanted, shit, for Karen to bring ice. | Average: 2.9 |
| 4. | George hoped, fucking hell, for Katie to stop by. | Average: 3.1 |
| 5. | Fred asked, damn it, for George to pick him up. | Average: 3.3 |
| 6. | Karen can't come because, shit, she is working late tonight. | Average: 5.5 |
| 7. | Susan wanted for, shit, Karen to bring ice. | Average: 2.8 |
| 8. | George hoped for, fucking hell, Katie to stop by. | Average: 2.6 |
| 9. | Fred asked for, damn it, George to pick him up. | Average: 3.9 |
| 10. | Shit, green, I like, but pink, I hate. | Average: 7.8 |
| 11. | Green, I like, but pink, I hate, shit. | Average: 6.5 |
| 12. | It, fuck, is snowing. | Average: 3.6 |
| 13. | It, shit, looks like rain. | Average: 4.5 |
| 14. | Fuck, that George was angry was obvious. | Average: 7.2 |
| 15. | That George was angry was obvious, fuck. | Average: 7.2 |
| 16. | That George was angry, fuck, was obvious. | Average: 4.4 |
| 17. | That George was, fuck, angry was obvious. | Average: 2.7 |
| 18. | That George was angry was, fuck, obvious. | Average: 4.6 |
| 19. | That Fred was, shit, lying was clear. | Average: 2.8 |
| 20. | That Fred was lying was, shit, clear. | Average: 3.5 |

Survey 62:

1.  Katie doesn't know where the party is, shit.                     Average: 8.8
2.  Susan isn't sure which piano is broken, fuck.                    Average: 8.2
3.  Does Susan know which piano is broken, shit?                     Average: 6.7
4.  Does Susan, shit, know which piano is broken?                    Average: 4.2
5.  Katie, shit, doesn't know where the party is.                    Average: 5.5
6.  Susan, fuck, isn't sure which piano is broken.                   Average: 4.9
7.  Shit, he could have been a famous actor.                         Average: 9.3
8.  Hell, John may have been taking dance lessons.                   Average: 8.7
9.  He could have been a famous actor, shit.                         Average: 8.2
10. John may have been taking dance lessons, hell.                   Average: 6.3
11. John may have been taking dance lessons, fuck.                   Average: 6.3
12. He, shit, could have been a famous actor.                        Average: 4.6
13. John, hell, may have been taking dance lessons.                  Average: 5.0
14. He could, shit, have been a famous actor.                        Average: 3.7
15. John may, hell, have been taking dance lessons.                  Average: 3.4
16. He could have, shit, been a famous actor.                        Average: 4.6
17. John may have, hell, been taking dance lessons.                  Average: 4.0
18. He could have been, shit, a famous actor.                        Average: 4.2
19. John may have been, hell, taking dance lessons.                  Average: 4.1
20. John may have been taking, hell, dance lessons.                  Average: 3.4

Survey 63:

1. Shit, Fred is going to Australia by ship on vacation this summer.   Average: 7.8
2. Fuck, Katie was waiting at the bus stop for three hours in the rain.   Average: 8.7
3. Fred is going to Australia, shit, by ship on vacation this summer.   Average: 3.7
4. Katie was waiting, fuck, at the bus stop for three hours in the rain.   Average: 4.3
5. Fred is going to Australia by ship, shit, on vacation this summer.   Average: 3.0
6. Katie was waiting at the bus stop, fuck, for three hours in the rain.   Average: 5.1
7. Fred is going to Australia by ship on vacation, shit, this summer.   Average: 2.6
8. Katie was waiting at the bus stop for three hours, fuck, in the rain.   Average: 4.6
9. Fred is going to Australia by ship on vacation this summer, shit.   Average: 7.5
10. Katie was waiting at the bus stop for three hours in the rain, fuck.   Average: 8.1
11. Fuck, George and Fred are going to be late.   Average: 9.3
12. Shit, Katie and Susan are stuck in traffic.   Average: 9.5
13. George, fuck, and Fred are going to be late.   Average: 2.7
14. Katie, shit, and Susan are stuck in traffic.   Average: 3.7
15. George and, fuck, Fred are going to be late.   Average: 3.2
16. Katie and, shit, Susan are stuck in traffic.   Average: 3.4
17. George and Fred, fuck, are going to be late.   Average: 4.3
18. Katie and Susan, shit, are stuck in traffic.   Average: 4.9
19. George and Fred are going to be late, fuck.   Average: 9.0
20. Katie and Susan are stuck in traffic, shit.   Average: 9.1

Survey 64:

1. Fuck, George was angry because Fred forgot his birthday and totaled his car.                  Average: 8.1
2. George was angry because Fred forgot his birthday and totaled his car, fuck.                  Average: 7.5
3. George, fuck, was angry because Fred forgot his birthday and totaled his car.                  Average: 3.3
4. Karen avoided Susan and wouldn't talk to Fred.                  Average: 9.5
5. George was angry because, fuck, Fred forgot his birthday and totaled his car.                  Average: 6.4
6. George was angry because Fred forgot his birthday, fuck, and totaled his car.                  Average: 4.4
7. George was angry because Fred forgot his birthday and, fuck, totaled his car.                  Average: 5.8
8. George was angry, fuck, because Fred forgot his birthday and totaled his car.                  Average: 4.2
9. Hell, Fred tried apologizing, but George wouldn't listen.                  Average: 8.5
10. Fred tried apologizing, but George wouldn't listen, hell.                  Average: 4.4
11. Fred, hell, tried apologizing, but George wouldn't listen.                  Average: 3.6
12. Fred tried, hell, apologizing, but George wouldn't listen.                  Average: 3.1
13. Fred tried apologizing, hell, but George wouldn't listen.                  Average: 4.0
14. Fred tried apologizing, but, hell, George wouldn't listen.                  Average: 6.9
15. You see, apparently, it turns out, I overslept.                  Average: 7.2
16. You see, it turns out, George, I overslept.                  Average: 7.7
17. Fuck, you see, it turns out, Karen is working late.                  Average: 6.4
18. Fuck, it turns out, you see, Karen is working late.                  Average: 6.4
19. Fuck, it turns out, Fred, Karen is working late.                  Average: 6.7
20. Apparently, Katie, honey, Karen is working late.                  Average: 7.7

Survey 65:

| | | |
|---|---|---|
| 1. | Apparently, Katie, it turns out, Karen is working late. | Average: 8.1 |
| 2. | It turns out, Katie, you see, Karen is working late. | Average: 6.1 |
| 3. | It turns out, apparently, Katie, Karen is working late. | Average: 5.7 |
| 4. | Katie, apparently, it turns out, Karen is working late. | Average: 5.5 |
| 5. | Katie, I believe, asked which car was yours. | Average: 8.0 |
| 6. | George lost his keys, you see, and Susan overslept. | Average: 8.5 |
| 7. | George lost his keys, you know, and Susan overslept. | Average: 7.7 |
| 8. | Karen is working, I hear, but John will come to the party. | Average: 8.9 |
| 9. | Katie and Fred, shit, are out in the park because they are trying to catch a stray dog. | Average: 4.7 |
| 10. | Katie is in the park, hell, because she found a stray dog. | Average: 4.1 |
| 11. | Fuck, Katie doesn't know who owns the dog. | Average: 8.0 |
| 12. | Shit, does Katie know who owns the dog? | Average: 8.6 |
| 13. | Does Katie know who, shit, owns the dog? | Average: 4.0 |
| 14. | Fred, shit, is going to Australia by ship on vacation this summer. | Average: 4.0 |
| 15. | Katie, fuck, was waiting at the bus stop for three hours in the rain. | Average: 5.0 |
| 16. | Katie is still at the park because she found a stray dog and is still looking for his owner, shit. | Average: 6.8 |
| 17. | Katie is still at the park because she found a stray dog, shit, and is still looking for his owner. | Average: 4.1 |
| 18. | Katie is still at the park because she found a stray dog and, shit, is still looking for his owner. | Average: 6.1 |
| 19. | George, that you were angry was clear. | Average: 6.7 |
| 20. | Susan, that George was angry was clear. | Average: 5.4 |

Survey 66:

1. That you need a haircut, Fred, is not debatable.      Average: 7.8
2. That George was angry, Katie, was clear.      Average: 6.6
3. That Fred was lying, Susan, was obvious.      Average: 6.9
4. The dog and the bird were great friends, you know.      Average: 9.2
5. The dog and the bird were great friends, I believe.      Average: 8.7
6. The dog ate all the food and, I believe, knocked over the table.      Average: 6.9
7. The dog ate, I believe, all the food and knocked over the table.      Average: 5.5
8. The dog ate all the food and begged us, you see, for more treats.      Average: 7.3
9. Susan hated the movie and left us, you know, in the theater.      Average: 6.4
10. Anna, I believe, mentioned that Karen was running late and Susan had a flat tire.      Average: 8.3
11. Anna mentioned, I believe, that Karen was running late and Susan had a flat tire.      Average: 7.6
12. Anna mentioned that, I believe, Karen was running late and Susan had a flat tire.      Average: 6.2
13. Anna mentioned that Karen was running late and Susan, I believe, had a flat tire.      Average: 8.1
14. John, fuck, I like, but Susan I can't stand.      Average: 4.0
15. Green, shit, I like, but pink I hate.      Average: 3.8
16. John I like, fuck, but Susan I can't stand.      Average: 4.2
17. Green I like, shit, but pink I hate.      Average: 4.0
18. John I like but, fuck, Susan I can't stand.      Average: 6.8
19. Green I like but, shit, pink I hate.      Average: 6.7
20. Fred wanted, Katie, for you to be supportive.      Average: 7.1

Survey 67:

1. Katie had to go to the store because we ran out of ice, apparently.  Average: 8.5
2. Anna is worried because George was angry about the party,  Average: 7.0
   incidentally.
3. Katie, apparently, had to go to the store because we ran out of ice.  Average: 8.5
4. Karen might have been buying, apparently, the book.  Average: 4.2
5. Anna and Katie are going to the party, apparently.  Average: 8.7
6. Katie heard that Fred adopted a dog and bought a new car,  Average: 7.9
   apparently.
7. Anna mentioned that George was angry and called the police,  Average: 7.3
   as it turns out.
8. Fred adopted a dog and bought a new car, incidentally.  Average: 6.6
9. Katie heard that Fred adopted a dog, apparently, and bought  Average: 6.3
   a new car.
10. Anna mentioned that George was angry, incidentally, and  Average: 6.3
    called the police.
11. Katie heard that Fred adopted a dog and, apparently, bought  Average: 7.7
    a new car.
12. George was angry and, incidentally, called the police.  Average: 6.7
13. Katie got a new job and Anna, incidentally, graduated.  Average: 7.0
14. Katie heard that, apparently, Fred adopted a dog and bought  Average: 7.3
    a new car.
15. Anna mentioned that, incidentally, George was angry and  Average: 5.9
    called the police.
16. Football, I don't like, but hockey, shit, I love.  Average: 7.0
17. Video games, I enjoy, but movies, fuck, I love.  Average: 6.3
18. Karen might have bought the book, fuck.  Average: 7.1
19. Anna, fuck, mentioned that George was angry and  Average: 5.7
    called the police.
20. George, shit, was angry and called the police.  Average: 5.3

Survey 68:

1. Katie got, shit, a new job and Anna graduated.      Average: 4.5
2. Katie wanted, I hear, for Anna to graduate.      Average: 6.6
3. John hoped, I believe, for Katie to get a new job.      Average: 7.7
4. Video games, you see, I enjoy, but movies, I love.      Average: 8.1
5. Video games, I enjoy, but movies, you see, I love.      Average: 7.9
6. That Anna graduated, you see, from college was expected.      Average: 4.9
7. I believe, Katie got a new job and Anna graduated.      Average: 6.3
8. Anna, I hear, graduated from college with honors this May.      Average: 8.7
9. Fred said that Katie got a new job, you know, and Anna graduated.      Average: 7.2
10. Fred said that Katie, you know, got a new job, and Anna graduated.      Average: 5.6
11. Katie got a new job and Anna, you know, graduated.      Average: 6.6
12. Fred said that Katie got a new job and Anna, you know, graduated.      Average: 6.8
13. You see, fuck, Katie, I can't find my keys.      Average: 6.2
14. Fuck, you see, apparently, Katie, I can't find my keys.      Average: 5.3
15. You see, fuck, apparently, I lost my keys.      Average: 6.5
16. Fuck, Katie, you see, apparently, I lost my keys.      Average: 5.5
17. You see, it turns out, Katie, I lost my keys.      Average: 7.3
18. Katie, you see, it turns out, I lost my keys.      Average: 7.1
19. Shit, you know, it so happens, your boyfriend is an idiot.      Average: 7.7
20. Son of a bitch, you see, apparently, Fred just got fired.      Average: 7.0

Survey 69:

| | |
|---|---|
| 1. You know, I hear, Karen might be moving to Alaska. | Average: 8.3 |
| 2. I believe, you see, John has a cat. | Average: 6.1 |
| 3. Karen might be moving to Alaska, you know, I hear. | Average: 5.2 |
| 4. John has a cat, I believe, you see. | Average: 4.9 |
| 5. Fuck, shit, I lost my keys. | Average: 7.7 |
| 6. Damn it, fucking shit, I'm being evicted. | Average: 8.3 |
| 7. Fucking hell, damn, my car was stolen. | Average: 7.6 |
| 8. I lost my keys, fuck, shit. | Average: 7.0 |
| 9. I'm being evicted, damn, fucking shit. | Average: 7.6 |
| 10. My car was stolen, fucking hell, damn. | Average: 7.6 |
| 11. John, apparently, by the way, Karen is moving. | Average: 4.9 |
| 12. Susan, it turns out, incidentally, John has a cat. | Average: 6.4 |
| 13. Apparently, by the way, John, Karen is moving. | Average: 5.6 |
| 14. It turns out, incidentally, Susan, John has a cat. | Average: 5.1 |
| 15. Karen is moving and John, you know, bought a cat. | Average: 7.2 |
| 16. Karen, you see, moved to Alaska that summer after the breakup. | Average: 8.1 |
| 17. Pop music, you know, I hate, but heavy metal, I adore. | Average: 7.1 |
| 18. Pop music, I hate, but heavy metal, you know, I adore. | Average: 7.2 |
| 19. Karen might have been considering a move to Alaska, shit. | Average: 6.5 |
| 20. Pop music, I hate, but heavy metal, I adore. | Average: 9.1 |

Survey 70:

1. You jerk, Susan, you know he just got out of the hospital!  Average: 9.2
2. Sweetheart, John, your car was stolen.  Average: 8.6
3. Susan hated that cat, by the way, apparently.  Average: 4.7
4. Susan hated that cat, apparently, by the way.  Average: 4.5
5. Karen moved to Alaska, incidentally, it turns out.  Average: 4.5
6. Karen moved to Alaska, it turns out, incidentally.  Average: 4.6
7. I hear, you know, Susan's car was stolen.  Average: 6.0
8. You see, I believe, the house is for sale.  Average: 5.8
9. Susan's car was stolen, I hear, you know.  Average: 4.7
10. The house is for sale, you see, I believe.  Average: 4.9
11. Shit, you know, as it turns out, Karen, your car was stolen.  Average: 6.7
12. Shit, Karen, you know, as it turns out, your car was stolen.  Average: 6.8
13. Karen, honey, you see, my car was stolen.  Average: 7.0
14. John, darling, you know, the movie already started.  Average: 7.2
15. Apparently, you know, Jane, the house is for sale.  Average: 6.0
16. Karen, apparently, shit, my car was stolen.  Average: 5.4
17. You see, shit, Karen, my car was stolen.  Average: 5.8
18. That John bought a cat is, by the way, surprising.  Average: 5.2
19. That Susan was injured, incidentally, was unexpected.  Average: 5.1
20. My car was stolen, fucking hell!  Average: 8.6

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