Actually, it’s more than pragmatics, it’s really grammaticalization

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1. **Introduction**

Actually and its variants have not been previously studied as a sociolinguistic phenomenon. However, actually has not escaped the attention of prescriptivists. *Fowler’s Modern English Usage* includes actually in an entry headed “meaningless words” (1996:355-356). The entry discusses “Words and phrases... often used in conversation, especially by the young.... any meaning they ever had was soon rubbed off them, and they became noises automatically produced” (*ibid*). Furthermore, actually has been a point of folk linguistics. One speaker from the corpus studied here commented that, “[One word] they're throwing around a lot is the word actually.... I'm starting to hear that a lot” (A/1656). Linguist and newspaper columnist Ruth Wajnryb recounts a letter from a reader complaining that actually is “everywhere and getting worse” and that it is “an epidemic” (2004:1). Similarly, a post on an amazon.com discussion board asks, “Is the word actually actually necessary?” and goes on to exhort readers to join the campaign against this “overused” word: “Let’s fix this problem starting NOW” (askville.com 2007).

Not everyone agrees with this negative assessment of actually, or suggests that it is meaningless. Swan’s *Usage*, for instance, describes actually as being used “to correct mistakes... to introduce new information... to break bad news gently” (1995:11). The negative popular attitudes towards actually, coupled with disagreements in the usage guides, highlight its membership in the diverse group of discourse markers in English (and other languages) which “are often stigmatized and deplored” (Brinton 1996:6). In recent years, the evolution of these

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1 I would gratefully like to acknowledge the Sociolinguistics Laboratory at the University of Toronto (Sali Tagliamonte, Director), which houses the *Toronto English Archive* at the University of Toronto, the corpus used in this study, and which is supported by the Social Sciences and Humanities Research Council of Canada (Grant #410-2003-0005).

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discourse markers, including *actually*, has been the subject of diachronic studies of grammaticalization (e.g., Brinton 1996, Traugott and Dasher 2002, Eckardt 2006). In addition, *actually* has been the subject of a considerable number of pragmatic studies (discussed below) which have outlined numerous different uses, generally based on syntactic position, as well as other adverbs, such as *really*, that *actually* varies with. Although diachronic studies have posited change, *actually* and its alternatives have not been the subject of a synchronic study to determine if there is a relationship between adverb choice and social variables, such as sex or education, or, if additional evidence of change can be seen in apparent time. Therefore, in this paper, I investigate two high level questions for the first time:

(1) Is the folk linguistic impression of an increase in the use of *actually* the result of a change in *actually* over apparent time, and are any other social variables correlated with the use of *actually*?

(2) As no previous study has simultaneously examined *actually* and all the other adverbs that it is reported to vary with, what insights can be gained from looking at the system of *actually* and its alternatives?

To answer these questions, I examine data from a 1.7 million word corpus of spoken English from Toronto, Canada. Using sociolinguistic methodology and statistical analyses, I studied over 3,300 tokens to examine the relationship between *actually* and its putative variants, and the behaviour of *actually* on its own. Section 2 reviews the syntactic and pragmatic literature on *actually* and its variants. While the uses of *actually* overall are numerous, and the details of those uses in any particular situation are open to discussion, there is agreement in the literature that *actually* and its variants have a core lexical meaning of realness. Section 3 covers the linguistic and statistical methodology used in this study. It presents the internal and external factors I use to
study *actually* and its variants and it describes how I circumscribed the variable context. Section 4 presents the results of the statistical analyses. As I will show, the use of *actually* is governed by syntactic position (as has been previously suggested), but more strongly by the polarity of the sentence, a new finding. Furthermore, the use of *actually* is on the rise in younger speakers, at the expense of the other variants in the system. In Section 5, I discuss these results and describe the changes taking place in more detail. Specifically, I show how the trajectory of *actually* is in line with the phenomenon of specialization, a further step to what has been previously observed in its grammaticalization process. Finally, Section 6 sums up the research presented in this paper.

2. Review of the literature

2.1. *Actually*: semantics and syntax, pragmatics and usage

Much of the work on actually has explored its variety of uses, and different uses are explored by different authors. Using the syntactic test of permissibility\(^2\) in a yes/no response, Greenbaum classified actually as a disjunct, one of the class of adverbs lacking “integration within the clause to which they are subordinate” (1969:25). Semantically, Greenbaum states that actually “conveys explicitly the speaker’s view that what he is saying is factually true. At the same time it suggests that what he is saying may be surprising to the person addressed” (1969:141). Greenbaum goes on to say,

When actually occurs before the verb it has an intensifying effect unless it is separated by intonational or punctuational means…. Firstly, it is equivalent to ‘in actual fact’…. Where the intensifier suggests that the statement may be surprising, it implies that it is surprising to the speaker as well (1969:142).

Notice here that Greenbaum does not suggest that actually is a canonical intensifier; rather, he is suggesting that the preverbal position signals that the information is surprising to the speaker also.\(^3\)

Jacobson (1978) categorizes pre-verbal actually (leaving other positions aside) as an adverb indicating “physical quality”, more specifically, “realness” (1978:73). Syntactically, Jacobson proposes that actually is generated higher in the tree than adverbs “characterizing processes, events or states” such as abruptly (1978:149). Like Greenbaum, Jacobson takes up the question of the meaning of actually, and also concludes that the use of actually implies i) that at least one participant is/will be surprised by some content of the utterance, and ii) that the content

\(^2\) Greenbaum’s criterion works as follows: the grammaticality of (a) shows that actually is a permissible response to a previous utterance, and thus a disjunct (compare with the conjunct however in (b)):

Speaker 1: Is the test useful?
Speaker 2: a. Actually, yes. (or, Actually, no)
   b. *However, yes. (or, *However, no)

\(^3\) Additionally, Greenbaum notes that the presence of a temporal element may allow another reading, namely, a temporal interpretation of “at the very time when” another event/state is taking place (1969: 141-142). For example, he suggests that the use of actually following when in the phrase “when I am actually speaking” can mean at the very time when the speaking is taking place (1969: 141-142). This use of actually does not occur in the data here, a finding consistent with Lenk’s study of British and American English corpora (1998).
of the utterance is true. He goes further than Greenbaum by stating that pre-verbal actually has an additional role: it emphasizes “the truth of the utterance at the same time as [it] focus[es] the hearer’s attention” on what follows the adverb (1978:61).

Traugott and Dasher (2002) group actually with two other discourse markers: in fact and indeed. All three, they propose, link the current utterance with previous discourse. Specifically, these three markers can all be used when one utterance is functioning as “an elaboration or clarification” of another (2002:171). Thus, all three are additive in that they link an utterance to a previous one.

Like Traugott and Dasher, Lenk (1998) primarily considers actually as a discourse marker. She proposes a “core function” of actually, namely, signalling an utterance that is “different from the expected normal course of conversation” (1998:160). She mentions a number of discourse uses of actually, such as marking personal opinion or self-correction.

Aijmer (1986) looks at the use of actually in two British corpora to examine its (many) pragmatic uses. She reports two roles of actually with some dependence on position. When actually appears initially, finally or parenthetically, it serves as a disjunct; when it occurs medially, it may instead function as an adjunct. As an adjunct, Aijmer proposes, actually usually serves as an “emphasizer” (1986:122). In other cases, such as the phrase not actually X, actually takes on an “adapter-word” role allowing circumlocution where an appropriate word is not available, e.g., “other things which aren’t actually academic departments” (1986:122). In its disjunct role, actually can serve as either connecting the current utterance to earlier discussion or a mechanism for “self-repair”, in cases such as (1):

(1) Geoffrey perfectly realized this – I mean, actually I told him that (Aijmer 1986:123)
In a study similar to Aijmer’s British English work, Oh (2000) examined data from an American English corpus and found that actually occurs more frequently in spoken than in written data, particularly in initial positions. She concludes that actually shares with in fact the “common core meaning” of “unexpectedness” (2000:266). Oh states that actually, when in initial position, acts as a “cohesive device” which links the utterance that follows it to the preceding context, though the specific use performed by that linking varies by context (2000:254). Initial actually, she proposes, may be a means of disagreeing, especially when it appears after well as seen in (2) from Oh (2000:256):

(2) SpeakerA44: Hey, the guy’s making millions, he ought to be able to perform, right. SpeakerB45: That’s right, well, actually he, he, he was supposedly, um, there was, there was something wrong with him at the time….

Oh states that the function of marking unexpected information also applies when actually appears in final position.

In medial position, generally defined as occurring after the subject for Oh, she suggests two possible uses of actually. First, it can have “global scope,” like actually in initial position, which Oh states is used to indicate disagreement (2000:260). Second, medial actually can have “local scope”, similar to Aijmer’s analysis for medial position, where “actually functions as a clause-emphasizer which has a reinforcing effect on the truth value of the clause” (2000:260).

Other research on actually takes a discourse analysis approach. Biber and Finegan (1988) describe a category of “stance adverbials” which are used for “expressing actuality, emphasis, greater certainty/truth than expected” (1988: 8). This group includes actually, in fact, really and as a matter of fact. They suggest that these adverbs are used for “emphasis, shared familiarity of information and solidarity,” and they too note that actually is used to mark cases where the utterance in some way is unexpected or contradictory (1988: 18). Similarly, Hickey (1991)
suggests that *actually* is used to politely indicate when an utterance is “contradicting something which a person may not have said but which Hearer considers her or him to think, believe, hope, expect, want or presuppose” (1991: 368). Clift (2000) uses discourse analysis to focus on the role of *actually* in turn taking, such as its use in the introduction and resumption of topics. She suggests, for example, that *actually* is used when “a topic is reopened by a speaker... after that same speaker has initiated the closing down of that topic” (2000:267).

Taglicht (2001) takes a more syntactic approach to some similar questions as Clift. He suggests that there are two versions: *actually*₁ “can serve as adjunct to a sentence, but not as Immediate Constituent (IC) of a verb phrase,” while *actually*₂ has the opposite properties (2001:2). His focus is on sentence-level uses, where roles of *actually* include marking transitions in discourse (e.g., a slight change in topic) and signalling disagreement.

Watts (1988) looks at *actually* and *really*, as well as *basically* (which he does not suggest is pragmatically interchangeable, but rather syntactically similar) in a discussion of the merits of a relevance-theoretical approach to discourse markers. Like Aijmer and others, he groups sentence-initial, sentence-final and parenthetical uses of *actually* together. Andersen (2001) takes this a step farther and suggests that *actually* along with *really* and *basically* should be considered “procedural” because they “denote a specific procedure… constraining the material which is to be recovered by pragmatic inference” (2000:61). She goes on to state that *actually* expresses an attitude of the speaker to the “newsworthiness” of the utterance, and to express surprise (2000:67). Thus, she states that *actually* and some instances of *really* are used to indicate “divergent contextual assumptions” (2000:74).
2.2. Clausal, Phrasal and Ambiguous positions

As is clear from the previous discussion, there are many uses of actually. Generally, though, there is a consensus that a broad division in uses is related to syntactic position. However, different authors use different terms to describe the positions, and the terms are not always transparent. This section briefly summarizes the distinctions made in the literature, including one position that is disputed, and outlines how I will use the syntactic position of actually in this work.

Greenbaum, Aijmer and Taglicht all distinguish two types of position for actually. Greenbaum (1969:142) makes the distinction convincingly by contrasting (3) with (4):

(3) Actually, he volunteered.
(4) He actually volunteered.

These examples provide a first division between peripheral/parenthetical positions and other positions in an utterance, such as pre-verbal and other sentence-internal positions. Aijmer (1986) also groups sentence-final and parenthetical position with sentence-initial position and argues they all behave in the same manner; the same grouping is provided by Watts (1988). Oh further refines initial position as including utterance-initial, utterance-second, clause-initial and restarts. Aijmer contrasts the peripheral positions with the uniform behaviour of actually in a variety of other positions, which she groups as “medial position” (121). Similarly, Taglicht describes a two-way split, through a more technical distinction, namely, adjunction at sentence level versus adjunction at phrase level. Taken together, the groupings made by Greenbaum, Aijmer, Oh and Taglicht can all be summarized as distinguishing between actually when it occurs at a clause-

4 Greenbaum also notes this two-way distinction for really.
5 These are my terms; Aijmer defines positions with reference to a sample sentence, rather than with generalized positions.
boundary position (e.g., (3) above) versus when it occurs internal to a clause (e.g., (4)). In syntactic terms, clausal *actually* occurs at CP level or above an IP, and phrasal *actually* occurs lower in the structure, such as within a TP or VP.

In order to maintain a neutral stance on the nature of these position-based differences, I will refer to *Clausal* and *Phrasal* positions, rather than describing the positional groupings with terms such as *disjunct, propositional marker* or *intensifier*.

The authors generally agree on where most syntactic positions fall with regard to the Clausal/Phrasal divide. The one problematic position is *actually* occurring after the verb (henceforth, post-verbal position). Greenbaum describes post-verbal *actually* as being equivalent to sentence-initial *actually*, and provides (5) as an example, which he describes as parenthetical, despite the absence of comma notation:6

(5) I’m very surprised *actually* at this quotation of Russell’s. (Greenbaum 1969:143)

However, Aijmer classifies post-verbal position as a clause-internal position, giving the example shown in (6):

(6) She is *actually* not as pretty as she might be (based on Aijmer 1986:121)

In Greenbaum’s example, *actually* occurs after both the verb and its complement. In Aijmer’s example, the adverb is immediately following the verb. Neither author, however, discusses both of these possibilities, so it is not clear if the adverbs in (5) and (6) should be considered to be in two distinct positions or if they are in the same position and some other factor is at work that distinguishes them (e.g., differing verb movement, adjunction direction, etc). Both authors’ analyses seem plausible. Rather than trying to arbitrate on what is basically a pragmatic/syntactic problem, I consider the post-verbal position (both immediately post-verbal, and immediately after the complement) to be Ambiguous, and it will be treated separately in the analysis.

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6 Taglicht also gives this reading as possible. I find it acceptable as a native speaker.
To sum up, I have made a distinction between Clausal, Phrasal and Ambiguous positions based on the literature and the data. Clausal positions are generally described as being peripheral to the clause they modify; that is, they occur at clause boundaries. Phrasal positions occur within syntactic phrases at or below the level of the IP. Certain clause-internal positions, namely, when \textit{actually} occurs post-verbally, are impossible to assign to these two categories, and these I will class as Ambiguous. For clarity, and to distinguish these positions from individual syntactic positions such as “between the verb and the auxiliary” (see Table 2 below), I will refer to discussions related to this three-way split as \textit{Position}. In the methodology section, I describe how this distinction appears in the data, with an extensive list of examples from the corpus.

2.3. \textbf{Summary of the pragmatic studies}

The results of the previous studies agree that the specific role (use) that \textit{actually} performs in an utterance is related to its syntactic position. This structure is expressed in Figure 1 below. In addition, the pragmatic literature concurs that \textit{actually} can vary with other adverbs, such as \textit{really} and \textit{in fact}, in both lexical and pragmatic meaning.

The goal of my study is a macro-level examination of \textit{actually} and its alternatives, using non-subjective methodology, to investigate what variation or change might be taking place in Toronto. Thus, I group uses at the syntactic level, distinguishing Position: Clausal or Phrasal position, rather than making (subjective) decisions about which particular use is being employed. This approach allows the analysis to proceed regardless of disagreements on the semantic/pragmatic uses of the various adverbs within a specific position, while maintaining the generally agreed upon distinction between Clausal and Phrasal uses. The execution of this distinction is covered in the methodology section.
## Summary of *actually* and its variants in previous studies

<table>
<thead>
<tr>
<th>Core Elements</th>
<th>Syntactic Positions</th>
<th>Selected Uses</th>
<th>Variants</th>
</tr>
</thead>
<tbody>
<tr>
<td>core pragmatic function:</td>
<td></td>
<td>Marking transition in discourse (Taglicht)</td>
<td><em>as a matter of fact</em> Aijmer 1986, Clift 2000</td>
</tr>
<tr>
<td>marking information that the speaker believes will be surprising/unexpected to the hearer</td>
<td></td>
<td>Preverbal focus on verb (Jacobson) Adjunct (Aijmer) Emphasize truthfulness of statement (Taglicht, Aijmer, Oh)</td>
<td><em>indeed</em> Traugott and Dasher 2002</td>
</tr>
</tbody>
</table>

**Figure 1:** Summary of *actually* and variants in the pragmatic literature

### 2.4. The path of grammaticalization

Traugott and Dasher (2002) examine diachronic change in *actually* and propose, reasonably, that its fifteenth century lexical content, namely, the meaning of *effectively* from the French *actuel*, has eroded over time and *actually* now is used as an “additive” discourse marker.
For a period in the 18th-19th centuries, they argue, *actually* had a use as an “epistemic adversative” implying “inference of epistemic certainty despite expectations otherwise” (2002:170). Presumably, this stage explains how *actually* gained its current association with surprising information. Traugott and Dasher argue that this pattern, lexical content evolving to epistemic adversative use and then to discourse marker, has also taken place with *indeed* and *in fact*, with common meanings/uses for all three. Furthermore, they suggest that there is a “tendency” for adverbs to evolve this way, “from clause-internal...to sentential adverbs, and ultimately to discourse markers,” though they make no specific claims about position-based differences in *actually* in Present Day English (2002:153). Traugott and Dasher’s observations are relevant to this study in two ways. First, their observations provide insight into why both various positions and different variants are possible. Second, Traugott and Dasher establish that *actually, in fact and indeed* are all currently involved in a process of grammaticalization, which will be important in interpreting the results of this study.

Other work on grammaticalization is also relevant. It has been noted that as the process of grammaticalization progresses meaning shifts may take place (e.g., Hopper and Traugott 2003:118), though these changes are often constrained by earlier meanings (Hopper and Traugott 2003:16). Based on the findings of the many pragmatic studies, it appears that large-scale meaning change has not taken place between the different positions of *actually*, as they continue to have the core meaning and pragmatic function noted above, with the uses of *actually* constrained by its core meaning/function. However, the different uses to which the core elements are put to use, and the disagreement about what those uses are, suggest that meaning change may be in its nascent form. In particular, as I discuss below in the section on circumscribing the variable context for *really*, unambiguously determining intended meaning is particularly murky
at the Phrasal level. The question, therefore, is not *Is actually involved in a process of grammaticalization?* Clearly, it is. Rather, the tack I will take is how the interaction with other variants is impacting the path of change for *actually*. As I will argue in the Discussion section, when *actually* is viewed in relation to the other adverbs with which it varies, it is possible to see further grammaticalization effects on these adverbs, observable only when examined as interactions between them.

3. **Methodology**

This part of the paper outlines the data collection and analysis methods used in this study. Section 3.1 describes the source of data and provides information on the speakers, including which social factors were considered, as well as presenting the internal factors. Section 3.2 outlines the process for circumscribing the variable context, including the rationale for which variants were included. Finally, in Section 3.3, I outline the statistical tools used to test the putative increase in *actually*, as well as its interaction with other variants in the system.

3.1. **Data and variables**

3.1.1. **Data source and extraction**

Data for this study come from the *Toronto English Archive*\(^7\) at the University of Toronto. The corpus contains spoken data from sociolinguistic interviews conducted in 2003 and 2004 in Toronto, Canada with speakers who were born in the city and still resident there. Table 1 shows

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\(^7\) The data on which this study is based were extracted from the Toronto English Project funded by the *Social Sciences and Humanities Research Council*:


http://individual.utoronto.ca/tagliamonte/

the breakdown of number of speakers by Sex for each of the three Age groups used in this study.\footnote{This study only considered adult use.}

<table>
<thead>
<tr>
<th>Number of speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>18 - 39</td>
</tr>
<tr>
<td>40 - 69</td>
</tr>
<tr>
<td>70 - 92</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>

Table 1: Count of speakers by Age and Sex

Data from the sociolinguistic interviews with these 115 speakers were extracted using the AntConc concordance program.\footnote{Only cases of consultant use were used; all uses by an interviewer or others were excluded manually in the data.} Although false starts are generally excluded from quantitative studies, one of the environments where these pragmatic markers are said to be used is with a self-interruption. Therefore, false starts have been included in the analysis.

3.1.2. Social variables

The corpus data include socioeconomic information about each speaker. Thus it was possible to examine the role of three social variables: sex, education and age. The variables Sex and Education were each coded with a binary division: male or female, up to completion of high school or beyond high school. I grouped Age into three categories: 18 to 39, 40 to 69, and 70 to 92. There was a slight relationship between Age and Education, with fewer younger speakers having only high school education, but the interaction was not so strong as to create non-orthogonal independent variables. Otherwise, the social variables did not show any co-linearity.

3.1.3. Operationalizing pragmatic use

The first internal factor considered in this study is the pragmatic role, as it has been the primary concern of most studies on actually. As I discussed above in the review of the literature,
there is a generally agreed upon relationship between syntactic positions and pragmatic uses. Therefore, I used this division in the syntax/pragmatics to categorize the occurrences of *actually* (and other variants, see below) by Position (Clausal, Phrasal or Ambiguous). This minimized the subjectivity in the assessment of pragmatic role while still reflecting that a distinction exists in usage. In other words, the judgment of which use of *actually* a speaker is engaging in is a far more subjective choice than determining which syntactic position the adverb occupies, and thus coding for the syntactic position is less open to bias. I coded for a detailed level of syntactic position (see Table 2 below) to allow a greater granularity while studying the data. However, this independent variable was collapsed to a three way split of Clausal, Phrasal or Ambiguous in the multivariate analysis.

As described above, Clausal positions refer to those syntactic locations where *actually* (or a variant) is on the periphery of a clause, including where it appears parenthetically; Phrasal refers to positions where *actually* (or a variant) is adjoined to a non-clausal element in a sentence, VP or AuxP, for example. In the corpus data, this distinction results in many individual positions. In addition to sentence-initial, sentence-final, and parenthetical positions, Clausal position also encompasses the occurrence of the adverb after discourse particles, such as *well* or *yeah* (7), occurrences after conjunctions such as *and* or *but* (8), and when a speaker restarts an utterance after self-correction (9).

(7)  **Well actually** my father told me (€/601)
(8)  **But actually** I have to give her credit. (!/ 77)
(9)  I read a lot when I was a ki-- *actually* when I was very young (s/741)
Phrasal positions are even more numerous, and include various positions between a subject and an auxiliary or verb (10), between the auxiliary and verb (11), within a verb phrase (12), or with infinitives or gerunds (13).

(10)  **We actually commuted** out to Bolton (TM/68)
(11)  I **didn't actually speak** one word to this guy (!/97)
(12)  I married her brother **actually** very, very young (s/674)
(13)  I think it's nice to have somebody **to actually be** honest (t/517)

Table 2 provides comprehensive list of Clausal, Phrasal and Ambiguous positions. All 15 individual positions\(^{10}\) in this list are attested in the corpus data and an example of each type from the data is provided. Counts and percentages for each position and each variant are given in Table 6 in the results section.

In some cases, it was not possible to definitively determine a position, because of speech errors or interruptions by other speakers, as seen here:

(14)  [A] Yeah, more of the idea of it than **actually**- [B] Yeah, than actually doing it (9/326)

These cases were excluded from Position-based analyses, but included, where possible, in tests of other independent variables (e.g., negation). The same positional criteria were applied to all other variants in the study.

There have been no claims in previous studies linking any of the variants to higher frequencies in any particular position. However, the distinction in uses discussed above is based on Position, therefore, it is likely to have an effect, though the direction is unclear ahead of time.

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\(^{10}\) When I refer to these detailed positions, I will call them “individual positions”; when referring to the Clausal, Phrasal and Ambiguous positions, I use the term “Position”.
<table>
<thead>
<tr>
<th>Position</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clausal</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Clause-initial                 | a.  *Actually,* they would be good to talk to. (t/506)  
| Clause-final                   | b.  *I'd probably just glue it down myself actually,* that's what I'd do. (m/1457)  
| After a conjunction            | c.  *But actually* I have to give her credit. (!/ 77)  
| Self-interruption              | d.  *it's a strange kind-of-- actually* when you look historically (*/289)  
| After a discourse element      | e.  Well *actually* my father told me (€/601)  
| **Phrasal**                    |                                                                          |
| Before another adverb          | f.  ... they *actually* still have to work. (~/17)  
| Between the subject and auxiliary | g.  I *actually* hadn't thought about it (F/1323)  
| Between the subject and verb   | h.  We *actually* commuted out to Bolton (TM/68)  
| Between the auxiliary and the verb | i.  I don't know if he's *actually* writing them down. (Σ/896)  
| Between the auxiliary and the verb, with other adverbs or negation | j.  I didn't *actually* speak one word to this guy (!/97)  
| Within the verb phrase         | k.  I think it's nice to have somebody to *actually* be honest (t/517)  
| Before a gerund                | l.  I married her brother *actually* very, very young. (s/674)  
| **Ambiguous**                  |                                                                          |
| Post-verbal, before complement | n.  And they're *actually* functional. (!/87)  
| Post-verbal after/no complement | o.  Oh he just- he died *actually,* at home (÷/1004)  

Table 2: Clausal/Phrasal/Ambiguous positions with examples

3.1.4. Polarity

In discussions of *actually* in the literature, the overriding (though often unarticulated) hypothesis has been that *actually* is conditioned solely by pragmatic role in the utterance.
However, Stenström (1986) observed that *really* collocates with negation. Therefore, I also coded for polarity in each clause. Affirmative cases were coded as such. For negation, I used a more fine-grained approach, shown here:

<table>
<thead>
<tr>
<th>Description</th>
<th>Example(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverb immediately followed <em>not</em></td>
<td>you can't actually physically restrain him (~/42)</td>
</tr>
<tr>
<td>Adverb is adjacent to negation:</td>
<td></td>
</tr>
<tr>
<td>immediately preceding the negated auxiliary</td>
<td>it actually hasn't dawned on them (~/20)</td>
</tr>
<tr>
<td>immediately preceding a negative word (see below)</td>
<td>He's actually never done that (r/583)</td>
</tr>
<tr>
<td>immediately following a negative word except <em>not</em></td>
<td>it never actually got that far (~/44)</td>
</tr>
<tr>
<td>Negative occurred somewhere in the clause, not</td>
<td></td>
</tr>
<tr>
<td>immediately before or after the adverb</td>
<td>I actually have no idea how to be subtle (!/99)</td>
</tr>
</tbody>
</table>

Table 3: Coding negation

The definition of “negative word” used in this study includes the usual means of forming negation in English, as well as negative pronouns and other indicators of negation. Thus the list of negative words used here is *not*, *never*, *no one*, *nobody*, *nothing*, *none*, *nowhere*, *no* + N (e.g., *no clue*), *only* and *without.* The last two items in the list were included as negative markers by Stenström, so, for consistency, I also included them. Given the observation of a relationship between negation and *really*, we would expect *really* to be favoured by negative contexts. In and of itself, this observation does not predict anything definitive for *actually*, though it would not be surprising if *actually* were favoured in affirmative contexts.

3.2. Circumscribing the variable context

3.2.1. The population of variants

Different authors have proposed different variants to *actually*. However, as described above, the consistent criterion for interchangeability with *actually* is a semantic one, namely, expressing *realness*. For both Greenbaum and Jacobson, *actually* and *really* have many

---

11 The negative pronoun *neither* did not occur. Furthermore, cases where a ‘no’ was used to answer a question and then followed by an affirmative statement were coded as affirmative (e.g., A: *Did you go to the doctor?* B: *No, she was actually out sick today herself*).
similarities, and are treated as (interchangeable) variants. Greenbaum makes the same meaning distinction for really in Clausal (“disjunct”) versus Phrasal (“intensifying”) position that he does for actually. (1969: 143-144). Jacobson groups actually and really together as two means of indicating “realness” (1978:73). Aijmer also groups actually with really, but additionally includes in fact and as a matter of fact as having similar functions. Biber and Finegan make the same grouping as Aijmer. Other authors examine more limited variation. Clift suggests as a matter of fact as a variant to actually. Oh examines variation only with in fact. Traugott and Dasher also group actually with in fact, but further suggest the variant indeed. Lenk mentions really and in fact.

In the interest of completeness, any and all adverbs suggested in the literature to be synonymous with actually have been included in this study, and as a group are considered to be the “system as a whole”. These adverbs are: actually, really, in fact, (as a) matter of fact, and indeed\textsuperscript{12}. Table 4 demonstrates that all variants are possible in a representative subset of the positions described above.

The variant as a matter of fact also occurred as $\emptyset$ matter of fact, and these two were treated as the same variant. Intuitively, the use of indeed after the verb may have a reading as an emphatic marker, an issue I will return to below. It is difficult to get a reading of in fact and

\textsuperscript{12} The literature does not discuss the use of phrases including the words surprise or surprising such as which is a surprise, surprisingly, it’s surprising (that), which is surprising, etc. These items cannot be considered true variants in the system because they cannot be substituted in all environments. They are only possible in Clausal positions, as demonstrated here:

\begin{itemize}
  \item[I)] a. Actually there's a No-Frills that's coming in there (m/1452)
  \item[I)] b. It's surprising that there's a No-Frills that's coming in there
  \item[II)] a. I think probably [he is] the only child who actually went to University. (R/1463)
  \item[II)] b. I think probably [he is] the only child who *it is surprising that went to University.
\end{itemize}

Out of interest, and for the sake of completeness, I also extracted all cases of these overt markers of surprising information. Only it’s surprising (that) (N = 2), which is surprising (N = 2) and surprisingly (N = 1) occurred with the relevant pragmatic function in the data. As they are not true variants, and furthermore they do not mark realness, they are not included in the analysis.
matter of fact as anything other parenthetical in Ambiguous and Phrasal positions. I considered the resolution of whether these two variants could ever be truly Phrasal as an additional question for investigation. Thus, I coded these two variants with the same Position criteria as other variants, with a view to examining their behaviour in these positions as part of the data analysis process. However, as I show below in Table 7, speakers avoid these variants in positions other than Clausal, rendering this question moot.

<table>
<thead>
<tr>
<th><strong>Clausal</strong></th>
<th>Actually (t/506), Really, In fact, As a matter of fact, Indeed,</th>
<th>they would be good to talk to</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phrasal</strong></td>
<td>then she would actually really in fact as a matter of fact indeed (n/5)</td>
<td>have it</td>
</tr>
<tr>
<td><strong>Ambiguous</strong></td>
<td>actually really (!/155) in fact as a matter of fact indeed</td>
<td>a serious thing</td>
</tr>
</tbody>
</table>

Table 4: Variant acceptability in different positions

Finally, the Principle of Accountability requires all potential contexts of a variable to be included in the analysis (Tagliamonte 2006:12-13). As described in the literature review, actually (and its variants) are used to indicate realness and mark unexpected information. Thus, all, and only, utterances with overt markers were included in the study.
3.2.2. Circumscribing the contexts for *really*

The pragmatic literature mentions some cases in which *actually* and *really* are not interchangeable, though it does not tackle this question in great detail. There are discussions of the uses of *really* (e.g., Watts 1988, Stenström 1986, Greenbaum 1969), and these uses overlap with uses of *actually*. Clearly, all cases of *really* and *actually* are not synonymous. However, a reliable rubric for objectively determining where there is overlap between the two adverbs does not exist, and excluding all cases of *really* is as inappropriate as including all of them, as there is certainly some common ground in the uses of *really* and *actually*. Thus, determining which cases of *really* were genuine variants was a non-trivial process. In an ideal scenario, a clear-cut distinction would be possible, but real language is rarely tidy, and this kind of context-based ambiguity of equivalence is to be expected in a system undergoing grammaticalization. As Hopper and Traugott note, “During any phase of coexistence there are some contexts in which the two (or more) types in question involve a clear pragmatic difference. There are other contexts in which the choice between them is less clear with respect to pragmatic difference” (2003:126). Therefore, unless there was clear evidence that the use of *really* definitively resulted in a meaning change, the token was included. The details of how this policy was implemented are described in the rest of this section.

First, as has been demonstrated in previous studies (for example, Tagliamonte 2008), *really* is commonly used as an intensifier in Canadian English.\(^{13}\) Therefore, any case where *really* could be replaced with *very* was excluded from the study. This included cases of *really* where it occurred before a predicate adjective:\(^{14}\)

\(^{13}\) This development in *really* is apparently separate from its role studied here, a phenomenon described by Craig (1991) as polygrammaticalization.

\(^{14}\) Of course, it is possible to have a parenthetical *really* after the verb, set off by intonation in speech, and thus by commas in the transcription. However, this did not occur in the data.
(15)  a. And they’re really good  
    b. And they’re not really good

In addition, cases where really or oh really were used to express incredulity were also excluded, as they do not permit variation with actually, in fact, etc:

(16)  Speaker A: He was horrible too supposedly. (¶/-)  
    Speaker B: (Oh) really? / #(Oh) actually? / #(Oh) in fact?

With the remaining cases of really, it was necessary to devise rigorous criteria for inclusion (i.e., non-subjective and reproducible). To do this, I examined the interchangeability of really with actually in the various individual positions described above in Table 2 by replacing actually with really. The occurrences of really in Ambiguous position are acceptable when not involving a predicate adjective:

(17)  Oh he just- he died really, at home (see Table 2 example (ex.) o)

In Clausal positions, actually and really are also easily interchangeable, without a meaning change, as seen in (18), which repeats the Clausal examples given in Table 2, substituting really for actually.

(18)  a. Really, they would be good to talk to. (see Table 2 ex. a)  
    b. I’d probably just glue it down myself really, that's what I'd do. (see Table 2 ex. b)  
    c. But really I have to give her credit. (see Table 2 ex. c)  
    d. it 's a strange kind-of-- really when you look historically (see Table 2 ex. d)  
    e. Well really my father told me (see Table 2 ex. e)

Therefore, all occurrences of really in Clausal position were included, with one exception. Cases where not really appeared on its own could not be included because not actually, not in fact, etc. are not possible, as seen here:

(19)  a. No, not really. (t/-)  
    b. No, not actually/#in fact/#as a matter of fact/#indeed.

The Phrasal level, at first glance, also seems to be unproblematic, as seen here, again repeating the examples from Table 2, substituting really for actually:
(20)  a. they really still have to work. (see Table 2 ex. f)
    b. I really hadn't thought about it (see Table 2 ex. g)
    c. We really commuted out to Bolton (see Table 2 ex. h)
    d. I don't know if he's really writing them down. (see Table 2 ex. i)
    e. I didn't really speak one word to this guy  (see Table 2 ex. j)
    f. I think it's nice to have somebody to really be honest (see Table 2 ex. k)
    g. I married her brother really very, very young. (see Table 2 ex. l)
    h. I have great deal of trouble really understanding what they've written (see Table 2 ex. m)

However, for semantic reasons, the situation where really occurs immediately before a main verb is not always straightforward. Specifically, the use of really immediately preceding the verb can have a degree reading, as has been noted in the literature (e.g., Greenbaum 1969). However, this reading occurs with only some, not all, verbs:

(21)  a. 'cause I really love that band (r/2413)
    b. it really went from my backyard to um Finch (N/5150)

Notice that if we replace really with actually, a meaning shift results in (a), while this is not the case\textsuperscript{15} in (b):

(22)  a. 'cause I actually love that band (versus (21a))
    b. it actually went from my backyard to um Finch (versus (21b))

Moreover, when the adverb is immediately preceded by negation, judgments about equivalence become even more murky:

(23)  a. 'cause I don’t really love that band (negation of (22a))
    b. 'cause I don’t actually love that band (negation of (22b))

It is possible to get a reading in (23) where really is a degree adverb, and thus (a) and (b) are not identical, but it is also possible to get a reading where (a) and (b) are equivalent. Furthermore, even taken in a fuller context, it was not possible to determine with any certainty which meaning the speaker intended.

\textsuperscript{15} Judgments in this section are based on not only my intuitions as a native speaker of NAE, but also confirmation with several native speakers of Canadian English.
In the interests of fully exploring the relationship between *actually* and *really*, I included cases where the equivalence of *actually* and *really* was possible. That is, all cases where the adverb appeared after negation were included in the analysis. However, I excluded cases where the semantics of the verb appeared to require a degree reading. In practice, this meant excluding all cases where *really* appeared before the following verbs in affirmative sentences: *like, love, enjoy, appreciate, change, want* and *need*. In addition, I excluded only some cases of other verbs; namely, I excluded affirmative cases of the verbs *pick up, take over, catch on* and *go down* only when they were used to indicate increase or decrease. When these four verbs were used with other meanings (e.g., *I picked up my sister from the bus stop*), they were included.

### 3.3. Statistical analysis

As a first test, I examined the frequency of *actually* (but not the other variants) in relation to the number of words per interview in the corpus. As mentioned above, data for this study came from sociolinguistic interviews, which vary in length. Therefore, I used a relative frequency measure of use, rather than a count of occurrences. For each speaker, I calculated a relative frequency from the interview data by dividing the number of tokens of *actually* by the word-count for each interview (made available with the corpus data). To present this information in a standard measure, the relative frequency was then multiplied by 1,000 to get relative frequency per thousand words. As a straightforward example, if a speaker used *actually* 20 times in an interview of 10,000 words, the calculation would be $(20 \div 10,000) \times 1,000 = 2.0$, that is, a relative frequency of twice per thousand words. Values ranged from a relative frequency of zero, for non-users of *actually*, to a maximum rate of 9.2 (per thousand). Speakers who did not use *actually* were still included in this analysis because accurately measuring frequency in a population requires the consideration of frequencies of zero. In order to test the hypothesis of
increasing frequency, I ran a multivariate regression and ANOVA. However, this test requires Normal data, and the relative frequency data have a lower limit of zero; thus the assumption of Normality is not necessarily met. Following standard statistical practice, I normalized the relative frequency values by subtracting the mean from each score and dividing the result by the standard deviation. I then ran the regression analysis\textsuperscript{16} on normalized relative frequency, as the dependent variable, and Age (in years) and Sex as the independent variables.

The ANOVA test of frequency provides a good, high level picture of the data. However, it only provides information about *actually* in isolation; it does not provide a model of the use of all the variants under study here (as outlined in section 3.2.1). In order to model the behaviour of *actually* with respect to the system of which it is a part, I conducted a multivariate analysis, as embodied in the variable rule program GoldVarb X (Sankoff, Tagliamonte and Smith, 2005). The dependent variable was choice of adverb in the system of adverbs marking realness; the independent variables are those discussed above. The majority of the discussion below covers the findings from the multivariate analysis.

4. Results

This section presents the results of frequency tests on *actually* alone and the multivariate analysis of all the variants, as described in the methodology section. First, I present the results of the ANOVA, which shows that relative frequency is increasing over time, i.e., the younger the speaker, the more frequent, on average, the use of *actually*, significant at 0.01. In addition, some elements of the way in which speakers use *actually* and *really* are also changing over apparent time, while others are stable, as the results of the multivariate analysis reveal.

\textsuperscript{16} I used the Statistical Toolpack in Excel to do these runs.
4.1. Frequency of actually – a first glimpse of change

Figure 2 shows a plot of the relative frequency values of actually versus the Age of the speaker, with each point in the graph representing an individual speaker, and non-users (frequency of zero) included. As expected in natural linguistic data, there is a lot of variation between individuals, even those in the same age range. Note, however, that the general trend is an increase in frequency as the speakers get younger. Even the values of the outliers show this trend; values for the most frequent older users of actually are noticeably lower than the values for the most frequent younger users.

As described in the Methodology section, I ran a multivariate regression/ANOVA on Normalized relative frequency by Age (in years) and speaker Sex. Sex was not selected as significant, while Age was selected as significant at \( p \) less than 0.01, with an R-square value of 0.16. Furthermore, the coefficient for Age is negative, confirming that as Age increases,
frequency decreases. Therefore, the data indicate that use of *actually* is increasing in younger speakers. Table 5 shows the median and mean rates per thousand words, by Age Group.

<table>
<thead>
<tr>
<th>Age</th>
<th>Median</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 39</td>
<td>1.69</td>
<td>2.05</td>
</tr>
<tr>
<td>40 - 69</td>
<td>0.78</td>
<td>1.09</td>
</tr>
<tr>
<td>70 - 92</td>
<td>0.27</td>
<td>0.54</td>
</tr>
</tbody>
</table>

Table 5: Mean and median relative frequency of *actually*

These results show a steady increase in the use of *actually* as speaker Age decreases. The median rate of use for the oldest speakers is below 0.4 times per 1,000 words, that is, less than 4 times per 10,000 words. In contrast, the youngest speakers use *actually* at a median rate of over 1.5 times per 1,000 words, or 15 times per 10,000 words – nearly four times the rate seen in the oldest speakers. In fact, if we look at only speakers between 18-30 (not shown above), the average rate increases to 2.24 occurrences per 1,000 words.

Although the use of *actually* is increasing in apparent time, clearly this is not the whole story. In the next section, I look briefly at the raw frequencies of other variants in the system, before turning, in the subsequent section, to an examination of how *actually* is interacting with the other variants, its linguistic environments and social factors.

### 4.2. Variant frequency

Table 6 shows the count for each individual position for each variant, with the percent that the count represents, relative to the total number of occurrences of that variant.

---

17 Previous corpus studies have looked at aggregate frequency, which is not comparable here, though the rate of occurrence across the entire Toronto corpus (1.3/1000 words) is on the same scale as other corpus studies of spoken data (e.g., 0.54/1000 words in Oh 2000 from the Switchboard Corpus).
<table>
<thead>
<tr>
<th>Individual position for each variant</th>
<th>actually</th>
<th>really</th>
<th>in fact</th>
<th>as a matter of fact</th>
<th>indeed</th>
<th>Total N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N %</strong></td>
<td><strong>N %</strong></td>
<td><strong>N %</strong></td>
<td><strong>N %</strong></td>
<td><strong>N %</strong></td>
<td><strong>N %</strong></td>
<td><strong>N %</strong></td>
</tr>
<tr>
<td><strong>Clausal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clause-initial</td>
<td>160</td>
<td>11</td>
<td>63</td>
<td>3</td>
<td>27</td>
<td>59</td>
</tr>
<tr>
<td>Clause-final</td>
<td>198</td>
<td>14</td>
<td>79</td>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>After a conjunction</td>
<td>113</td>
<td>8</td>
<td>37</td>
<td>2</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Self-interruption</td>
<td>225</td>
<td>15</td>
<td>201</td>
<td>11</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>After a discourse element</td>
<td>72</td>
<td>5</td>
<td>12</td>
<td>1</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total clausal</strong></td>
<td><strong>768</strong></td>
<td><strong>392</strong></td>
<td><strong>45</strong></td>
<td><strong>30</strong></td>
<td><strong>4</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Phrasal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before another adverb</td>
<td>30</td>
<td>2</td>
<td>42</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Between the subject and auxiliary</td>
<td>46</td>
<td>3</td>
<td>167</td>
<td>9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Between the subject and verb</td>
<td>251</td>
<td>17</td>
<td>337</td>
<td>18</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Between the auxiliary and the verb or two auxiliaries</td>
<td>115</td>
<td>8</td>
<td>91</td>
<td>5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Between the auxiliary and the verb, with other adverbs or negation</td>
<td>25</td>
<td>2</td>
<td>537</td>
<td>28</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>With an infinitive</td>
<td>26</td>
<td>2</td>
<td>112</td>
<td>6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Within the verb phrase</td>
<td>15</td>
<td>1</td>
<td>14</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Before a gerund</td>
<td>12</td>
<td>1</td>
<td>18</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total phrasal</strong></td>
<td><strong>520</strong></td>
<td><strong>1318</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>1</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Ambiguous</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-verbal, before complement</td>
<td>154</td>
<td>11</td>
<td>173</td>
<td>9</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Post-verbal after/no complement</td>
<td>10</td>
<td>1</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total ambiguous</strong></td>
<td><strong>164</strong></td>
<td><strong>178</strong></td>
<td><strong>1</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td><strong>1452</strong></td>
<td><strong>1888</strong></td>
<td><strong>46</strong></td>
<td><strong>30</strong></td>
<td><strong>5</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 6: Variants by individual position

Table 7 collapses the data in Table 6 to show Clausal, Phrasal and Ambiguous position, with total number of occurrences given at the bottom of each column.
Variants by Position and % within Position

<table>
<thead>
<tr>
<th>Position</th>
<th>actually N</th>
<th>%</th>
<th>indeed N</th>
<th>%</th>
<th>(as a) matter of fact N</th>
<th>%</th>
<th>in fact N</th>
<th>%</th>
<th>really N</th>
<th>%</th>
<th>Total N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clausal</td>
<td>768</td>
<td>62.0</td>
<td>4</td>
<td>0.3</td>
<td>30</td>
<td>2.4</td>
<td>45</td>
<td>3.6</td>
<td>392</td>
<td>31.7</td>
<td>1239</td>
<td>36</td>
</tr>
<tr>
<td>Ambiguous</td>
<td>164</td>
<td>47.8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.3</td>
<td>178</td>
<td>51.9</td>
<td>343</td>
<td>10</td>
</tr>
<tr>
<td>Phrasal</td>
<td>520</td>
<td>28.3</td>
<td>1</td>
<td>0.3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1318</td>
<td>71.7</td>
<td>1839</td>
<td>54</td>
</tr>
<tr>
<td>Total N</td>
<td>1452</td>
<td>5</td>
<td>30</td>
<td>46</td>
<td>1888</td>
<td>3421</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7: Count of variants by Position

Although multiple individual positions (see Table 6) are possible for each variant, not all variants appear in the aggregated Phrasal and Ambiguous positions, as seen in Table 7. The exceptional (i.e., not Clausal) cases with in fact and indeed are given here:

(24) a. …there is in fact no regulation about bringing animals (~1)
b. … then she would indeed have it. (n/5)

Although the use of indeed may also serve an emphatic function, according to Traugott and Dasher, the “emphatic degree adverb” use of indeed, which they argue is distinct from its use as a variant of actually, only occurs after an adjective or adverb, which is clearly not the case here (2002:162). Therefore, I left it in the analysis.

Furthermore, only actually and really appear on their own, as seen in (25):

(25) a. …we didn't have any children around our area. Actually. (g/1095)

Both of these variants only occur once in this position. The use of actually was uttered by a woman in her seventies; the token of really was from a woman in her forties.

The results in Table 7 demonstrate that only actually and really appear in positions other than Clausal with any regularity. Furthermore, we see that actually is the most common adverb in Clausal position, i.e., in the speech-act adverb range of syntactic structure, though it is far from absent at Phrasal level, used nearly 30 percent of the time. Conversely, really dominates

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18 This column provides a percent value out of all tokens.
19 As in Table 3, cases of all variants where the position could not be definitively determined were excluded.
(i.e., it is used in over 70 percent of the cases) at Phrasal level, while being less common at Clausal level, at just over 30 percent.

To sum up, the variation in the system of marking realness as a whole is chiefly between \textit{actually} and \textit{really}, with some additional variability at Clausal level. The nature of the factors influencing this choice is taken up in the next section.

4.3. **The results of the multivariate analysis**

Two internal factors, Position and Polarity, and three social variables, Age, Sex and Education, were included in the multivariate analysis, the results of which are shown below in Table 8.

The strongest factor is Polarity, with affirmative contexts strongly favouring \textit{actually}, and negative contexts disfavouring it, especially when the adverb and negation are adjacent. In particular, the position immediately following \textit{not} very strongly disfavours \textit{actually}.\footnote{Recall that this position was particularly murky in terms of meaning equivalence, also suggesting a locus of change.} Although the collocation of \textit{really} with negation had been observed previously (see section 3.1.4), this observation did not necessarily imply anything about the behaviour of the other variants. In other words, it was entirely possible that \textit{actually} could occur with negation at the same rate as \textit{really}. However, the multivariate analysis clearly shows that this is not the case. For the first time, there is quantitative evidence that \textit{actually} and affirmative polarity are linked.

Position (and by extension, pragmatic use) is also significant, with Phrasal positions disfavouring the use of \textit{actually}, and other positions favouring it. For the most part, there is stability in the effect. Turning to the social factors, neither Sex or Education was selected as significant; Age, on the other hand, is significant, with younger speakers favouring use of...
actually and older speakers disfavouring it, in keeping with the high level results for relative frequency discussed above.

<table>
<thead>
<tr>
<th>Factor Weight</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polarity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affirmative</td>
<td>.71</td>
<td>57</td>
</tr>
<tr>
<td>Negation removed from adverb</td>
<td>.43</td>
<td>32</td>
</tr>
<tr>
<td>Negation immediately adjacent</td>
<td>.19</td>
<td>9</td>
</tr>
<tr>
<td>Immediately after 'not'</td>
<td>.06</td>
<td>3</td>
</tr>
<tr>
<td>Position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clausal</td>
<td>.64</td>
<td>62</td>
</tr>
<tr>
<td>Ambiguous</td>
<td>.53</td>
<td>47</td>
</tr>
<tr>
<td>Phrasal</td>
<td>.40</td>
<td>28</td>
</tr>
<tr>
<td>Speaker age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-39</td>
<td>.56</td>
<td>44</td>
</tr>
<tr>
<td>40-69</td>
<td>.45</td>
<td>41</td>
</tr>
<tr>
<td>70-92</td>
<td>.34</td>
<td>37</td>
</tr>
<tr>
<td>Speaker sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>[.50]</td>
<td>44</td>
</tr>
<tr>
<td>Male</td>
<td>[.50]</td>
<td>40</td>
</tr>
<tr>
<td>Speaker education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to and completed high school</td>
<td>[.48]</td>
<td>41</td>
</tr>
<tr>
<td>Beyond high school</td>
<td>[.50]</td>
<td>43</td>
</tr>
</tbody>
</table>

Table 8: Multivariate analysis results for use of actually in Toronto English

---

21 This total includes all tokens under study here, including those which were excluded in the positional breakdown because the position could not be determined definitively.
Furthermore, within each Age group, the results for Polarity and Position are fairly consistent in terms of the relative strength, the hierarchy of constraints and the range for each factor, as seen in Table 9.

<table>
<thead>
<tr>
<th></th>
<th>18-39</th>
<th></th>
<th>40-69</th>
<th></th>
<th>70-92</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected mean</td>
<td>0.36</td>
<td>0.31</td>
<td>0.31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total N</td>
<td>1917</td>
<td>1201</td>
<td>335</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Polarity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affirmative</td>
<td>.74</td>
<td>63</td>
<td>1224</td>
<td>.70</td>
<td>53</td>
<td>891</td>
</tr>
<tr>
<td>Neg removed from adv</td>
<td>.43</td>
<td>34</td>
<td>98</td>
<td>.48</td>
<td>31</td>
<td>55</td>
</tr>
<tr>
<td>Neg immediately adjacent</td>
<td>.26</td>
<td>13</td>
<td>165</td>
<td>.09</td>
<td>3</td>
<td>88</td>
</tr>
<tr>
<td>Immediately after 'not'</td>
<td>.07</td>
<td>4</td>
<td>428</td>
<td>.03</td>
<td>1</td>
<td>167</td>
</tr>
<tr>
<td></td>
<td>67</td>
<td></td>
<td>67</td>
<td></td>
<td>53</td>
<td></td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clausal</td>
<td>.64</td>
<td>66</td>
<td>626</td>
<td>.64</td>
<td>61</td>
<td>441</td>
</tr>
<tr>
<td>Ambiguous</td>
<td>.56</td>
<td>53</td>
<td>199</td>
<td>.51</td>
<td>41</td>
<td>112</td>
</tr>
<tr>
<td>Phrasal</td>
<td>.41</td>
<td>30</td>
<td>1074</td>
<td>.40</td>
<td>28</td>
<td>636</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td></td>
<td>24</td>
<td></td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

Table 9: Multivariate analysis results within Age

4.4. **Summary of the results**

The results presented in this section are:

i) Some of the variants in the system are very infrequent: *indeed, as a matter of fact, in fact*

ii) Affirmative contexts favour *actually*; negative contexts disfavour it

iii) Phrasal position disfavours *actually*; others Positions favour it

iv) Age is the only social factor related to use of *actually*, with younger speakers favouring it

In the next section, I will further examine each of these results in turn to provide a more comprehensive picture of what is taking place.

5. **Discussion – variation or change?**

At first glance, the multivariate analysis results suggest that the pattern of variation in the system is, in large part, stable. The younger speakers are not radically different from the older
speakers; there is nothing to indicate that a rapid reorganization is taking place in the system. Should the conclusion therefore be that the system is in a steady state of variation without change? Closer investigation indicates that stable variation is not the correct interpretation.

The statistical significance of Age, i.e., the greater use of actually by younger speakers, argues against the stable variation hypothesis. The increase in frequency of actually is indicative that the grammaticalization process is still continuing because, as Traugott and Heine observe, “The more grammaticalized a form, the more frequent it is” (1991:9). However, increase in frequency alone is not proof of grammaticalization (Mair 2004:125, inter alia) and some types of grammaticalized behaviour do not appear with concurrent increases in frequency (e.g., Mair 2004:123).

However, as I will explain further in this section, although some factor groups show consistent patterns of variation across age groups, in other environments, younger speakers are advancing change. I will show that actually and the other variants are engaged in interrelated processes of change, related to the previously observed grammaticalization; the process is slow, but it can be observed in the apparent time data. Furthermore, it can be demonstrated to be an ongoing process of grammaticalization.

5.1. Variant decline

Some variants in the system show very low use: indeed, as a matter of fact and in fact. Furthermore, these low frequency variants are even less common in younger speakers, as seen in Table 10, given as token counts rather than proportions due to the extremely low number of occurrences of some variants.
### Count of tokens of each variants by Age

<table>
<thead>
<tr>
<th>Variant</th>
<th>18-39</th>
<th>40-69</th>
<th>70-92</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>actually</td>
<td>842</td>
<td>496</td>
<td>123</td>
<td>1461</td>
</tr>
<tr>
<td>really</td>
<td>1061</td>
<td>664</td>
<td>186</td>
<td>1911</td>
</tr>
<tr>
<td>in fact</td>
<td>14</td>
<td>27</td>
<td>5</td>
<td>46</td>
</tr>
<tr>
<td>matter of fact</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>indeed</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 10: Variant count by Age

Not only are *as a matter of fact* and *indeed* infrequent in general, they are not used at all by the youngest speakers, while younger speaker use of *actually* and *really* is robust. This narrowing of the variants employed is a case of specialization, “the process of reducing the variety of formal choices available” (Hopper and Traugott 2003:116).\(^22\) Briefly stated, in this case of specialization, *actually* and *really* are squeezing out *as a matter of fact* and *indeed*.

The apparent preservation of *in fact* is most likely related to prescriptive pressures. Previous studies have reported that *in fact* is more common in writing than in speech (Oh 2000, Traugott and Dasher 2002). This suggests that there is an association between *in fact* and a more formal style, explaining both why *in fact* is infrequent in the corpus (avoiding formal style is a goal of sociolinguistic interviews), and why it is escaping obsolescence (it has a stylistic function (i.e., more formal) absent from *actually* and *really*). Furthermore, the use of *in fact*, as seen in Table 10, follows a U-shape (inverted, in this case) with regard to age which has been hypothesized to be associated with features that are positively valued in the linguistic marketplace (e.g., Eckert 1997:160) and which are associated with age-related variation (Cheshire 2005:1555). The highest users of *in fact* are those between 40 and 69, speakers whose language use is most likely to reflect the norms of the workplace. In other words, the use of *in fact* shows a pattern of age-grading, in particular “age-preferential” behaviour, in that it is a

\(^{22}\) Also called *obligatorification* (e.g., Heine, Claudi and Hünnemeyer 1991)
variant that is “used by speakers of all ages in the community, but more frequently by some age groups than by others” (Cheshire 2005:1553). The presence of the U-shaped pattern, with prestige variants used at the highest rates by middle-aged speakers, also suggests that in fact, in contrast to the other variants, is a stable element in the system (Cheshire 2005:1555).

5.2. Stability (yet a reanalysis?): Position

Looking at only Clausal and Phrasal positions across the Age groups, (i.e., leaving aside Ambiguous position for a moment), the effect of Position on adverb choice is remarkably stable; the Range values between different Ages for this variable are only barely different, as seen in Table 9. However, the preference for actually or really in Clausal or Phrasal position needs to be explained. For ease of discussion, I repeat their distribution from Table 7, in chart form, in Figure 3.

![Choice of actually/really by Position](image)

Figure 3: Choice of actually or really by Position

The pragmatics literature describes different uses related to the different positions. As pragmatic uses are intentional, speakers must be making a choice about which use they are intending, and thus making a corresponding choice about what position the adverb will have. It is clear that uses
that are indicated by having an adverb at Phrasal level are more commonly marked by *really*, while uses that are indicated by an adverb at the Clausal level are more commonly marked by *actually*.

However, it appears that not only do pragmaticians disagree on Ambiguous (i.e., post-verbal) position, so do speakers. Overall, the use of *actually* and *really* is almost evenly split. The oldest speakers use *actually* in Ambiguous position (factor weight = .38) even less often than they do in Phrasal position (FW = .41). Speakers between 40 and 69, however, very slightly favour the use of *actually* in Ambiguous position (FW = .51), while it appears to be increasing slightly in the youngest speakers (FW = .56). There are only 30 tokens of ambiguous position in data from the oldest speakers, so there is a possibility of a small sample size effect. Nonetheless, if this finding is valid, it indicates that the Ambiguous position has been reanalyzed as a Clausal position by speakers under 70 years old, and we would expect that, over time, *actually* would come to dominate this position as it does with other Clausal positions.

5.3. **Polarity: Specialization again**

As seen above, the polarity of the sentence has a strong correlation with the choice of variant. Therefore, I separated the data into negative and affirmative contexts. Tables 11 and 12 show the proportional use of *actually*, *really* and the other variants in only negative and only affirmative contexts, respectively. The general trend in the tables is as expected based on the factor weights: the use of *really* is higher in negative contexts and the use of *actually* is higher in affirmative cases. However, the two contexts are not mirror images.
In the negative cases, the situation is very stable; the differences between the age groups are not statistically significant. The use of *really* hovers around 90 percent for all speakers, with *actually* at about 9 percent, and an almost non-existent use of the other variants. In the affirmative cases, however, the rates of use are not as stable and age group is statistically significant. In the oldest speakers, the use of both *really* and *actually* is below 50 percent each, with the other variants forming nearly 10 percent of the cases. In the youngest speakers, not only is the use of variants other than *really* and *actually* nearing zero, but moreover *really* is losing ground to *actually*. This polarity-based distinction is in keeping with the observed effects of specialization; while a specialization process is on-going, the variants that are not eliminated may display context-related frequency differences (Hopper and Traugott 2003:116). In the case under study here, *really* is becoming the marker in negative contexts, and *actually* is becoming the marker in affirmative contexts. The ultimate result of specialization is that the “choice of forms in a particular construction narrows, with one or more forms becoming obligatory”

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**Table 11: Variants in only negative contexts**

<table>
<thead>
<tr>
<th>Age</th>
<th>actually</th>
<th>really</th>
<th>others</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-39</td>
<td>10.1</td>
<td>89.6</td>
<td>0.3</td>
<td>694</td>
</tr>
<tr>
<td>40-69</td>
<td>7.1</td>
<td>92.6</td>
<td>0.3</td>
<td>311</td>
</tr>
<tr>
<td>70-92</td>
<td>8.9</td>
<td>89.9</td>
<td>1.3</td>
<td>79</td>
</tr>
</tbody>
</table>

**Table 12: Variants in only affirmative contexts**

<table>
<thead>
<tr>
<th>Age</th>
<th>actually</th>
<th>really</th>
<th>others</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-39</td>
<td>63.0</td>
<td>36.1</td>
<td>1.0</td>
<td>1226</td>
</tr>
<tr>
<td>40-69</td>
<td>53.2</td>
<td>42.3</td>
<td>4.4</td>
<td>891</td>
</tr>
<tr>
<td>70-92</td>
<td>45.3</td>
<td>44.9</td>
<td>9.8</td>
<td>256</td>
</tr>
</tbody>
</table>

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23 Statistical significance was determined by a multivariate analysis (using GoldVarb X) of only negative contexts. Age was NOT selected as significant.
24 Statistical significance was determined by a multivariate analysis of only affirmative contexts. Age was selected as significant in affirmative contexts, with younger speakers favouring *actually*.
Thus, we would expect that, in the future, the division between actually and really would become categorical.

A definitive resolution of how this process began requires a historical study; even the oldest speakers show the contextual divide. Thus the change must have started well before even the oldest speakers were born. However, it is possible to sketch out a reasonable hypothesis of the path of change. Given that the negative contexts are much closer to categorical than the affirmative contexts, the implication is that the division of labour began in negative contexts. As noted in the discussion above, the collocation of really with negation has been observed as an independent phenomenon in previous studies. Therefore, the association of really with negative contexts was most likely unrelated to any interaction with actually. However, as really takes over the negative context, actually and the other variants are being reanalyzed as associated with the affirmative cases. The result, then, is several redundant variants in the affirmative, which now appear to be narrowing towards a sole preferred variant: actually.

A mechanism is available for the elimination of indeed and as a matter of fact: lexical replacement, a common linguistic change (e.g., Bynon 1977:183-190; Chambers 2000:193). There is some evidence that suggests lexical replacement. First, some variants are restricted to older people (e.g., indeed, as a matter of fact). Second, the surviving variants are synonymous with the declining variants. However, the rate of change in lexical replacement is rapid (cf. D’Arcy 2006:346, Chambers 2000:193), and the changes observed in actually are slow, as

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25 Notice, for instance, the unacceptability of Not actually as a unit, while Not really is fine. This is one piece of evidence suggesting that not really is undergoing lexicalization, similar to what Hopper and Traugott describe for try and (2003:50). Other evidence for lexicalization is that /t/ deletion and laxing of /i/ of the first vowel in the adverbs both seem easier in a than in b, in what are reasonably similar contexts, but this is impressionistic and needs formal study.

Q: Have you seen any good movies lately?
A: a. No, not really.
   b. No, not recently.

Furthermore, this close association with not also raises the question of whether really is on the road to becoming the next element to be co-opted as a negative re-enforcer in a Jespersen negative cycle.
demonstrated by the fairly consistent ranking of factors in the multivariate analysis. A historical study would be needed to determine definitively if the low frequency of the declining variants is the end of a steady, slow decline, or, if the low frequency variants have been always been low in frequency and are only now being replaced in a fairly sudden change. In any case, two very robust variants remain: really and actually. The continuation of a system of two variants suggests that there is a context-based distinction developing, rather than a wholesale replacement of one variant with another. In addition, it has been previously observed\(^\text{26}\) that grammaticalization is taking place for both actually and really, so it is clear that other forces are already at work on these two adverbs. Therefore, while lexical replacement might be involved in the implementation of the process of specialization, it is not the only process implicated in the change here.

Assuming the S-curve model of language change (cf. Holmes 2001:203, Bailey 1973:77), the differing rates of at which the two environments are developing is to be expected. The change to exclusively really in negative contexts is nearing completion (i.e., it is now at 90 percent); in affirmative contexts, the increasing variant (actually, at 63 percent) has not taken over so completely. Thus, as predicted by the S-curve model, we see change at a more rapid rate in the affirmative contexts than the negative contexts.\(^\text{27}\) Furthermore, the continued use of actually in negative contexts is consistent with the processes of language change. Even as a change is taking place, variation may be observed, while old forms “remain to coexist and interact with” new forms, a process described by Hopper as layering (1991:22). Furthermore, as there are more affirmative than negative contexts (in the corpus, though presumably this is true of speech in most other, more natural contexts), this change is also contributing to the overall increase in frequency of actually.


\(^{27}\) In fact, change is so slow in negative contexts, that we cannot see it in over 70 years of apparent time.
5.4. Change and grammaticalization

As I have demonstrated above, the use of *actually* and its variants is undergoing change over time. In and of itself, change is not equivalent to grammaticalization. However, this particular case, change in the system of marking realness, is clearly a case of grammaticalization. First, the process of delexicalization has already been demonstrated to be taking place in previous studies for all the variants in the system (e.g., Traugott and Dasher 2002, Lorenz 2002, Tagliamonte 2008). Second, the chief force behind the change seen in the system is specialization, a linguistic phenomenon directly associated with grammaticalization (Hopper 1991). Third, the increase in frequency is indicative of “dynamic [grammaticalization]…which involves diachronic change and will result in… shifts in discourse frequencies” (Mair 2004:123). Furthermore, Mair argues, “Changes in relative or proportional frequencies…will usually be part of the central phase of the process of grammaticalization itself” (2004:138). In short, although the rate of change can only be seen over the course of more than one generation, *actually* and its variants are actively involved in an on-going and dynamic process of grammaticalization.

6. Conclusion

In this paper, I examined for the first time the use of *actually* from the perspective of synchronic language variation and change. I examined not only *actually* in isolation, but also its involvement in a system of marking realness that also incorporates the adverbials with which it has been reported to vary: *really, as a matter of fact, in fact* and *indeed*. The study examined natural speech data of Toronto English, and drew on pragmatics research, using syntactic

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28 Mair contrasts this dynamic type with a static type of grammaticalization which “is not associated with language change but manifests itself in a diachronically stable ‘corona’ of marginal and experimental uses around some highly frequent lexical items” (2004:136).
position to study differing groups of pragmatic roles. I set out to answer two questions in this study; I will briefly sum up the answer to each here.

(1) Is the folk linguistic impression of an increase in the use of *actually* the result of a change in *actually* over apparent time, and are any other social variables correlated with the use of *actually*?

There is no evidence that use of *actually* is related to Sex or Education. However, there is a relationship between Age and use of *actually*. This association is not a manifestation of social meaning, but rather reflects the on-going process of grammaticalization that has been previously observed in the literature. Thus, *actually* is not a marker of social group membership. As seen in both the ANOVA and multivariate analyses, overall frequencies of use are increasing in apparent time, a statistically significant finding. This increase is demonstrably the result of the interaction between *actually* and the other variants in the system.

(2) As no previous study has simultaneously examined *actually* and all the other adverbs that it is reported to vary with, what insights can be gained from looking at the system of *actually* and its alternatives?

First, it is clear that *actually* and *really* compete in contemporary Toronto English, with *actually* increasing in affirmative contexts and *really* dominating in negative ones. This change is taking place amid the stability of a distinction between Clausal and Phrasal positions (and their corresponding pragmatic roles) for these two adverbs, with *actually* being more common for Clausal level pragmatic uses, and *really* being more common for Phrasal level pragmatic uses. The Ambiguous position, however, appears to have undergone a reanalysis by the speakers in the 40-69 age group, as it has changed from a position that strongly disfavours *actually* to one that
slightly favours it. Second, it is apparent that some variants in the system for marking realness are disappearing from Toronto English, namely, *indeed* and *as a matter of fact*.

*Actually* and the other adverbs under study here have been studied individually as cases of grammaticalization by different authors, and there has been some discussion of their parallel evolution. The results above, however, show that examining the adverbs as a system sheds additional light on what is taking place for each one individually, as the interactions between them demonstrate a system that is specializing towards a division between *actually* and *really*.

The changes seen for Toronto English in the system of adverbs marking realness follow observed patterns of grammaticalization (e.g., specialization), rather than other possible types of variation or change, such as stable variation or lexical replacement. Variation between *actually* and the other adverbs in the realness system is not restricted to only North American varieties of English. Therefore, the obvious direction for future sociolinguistic work would be to examine this system of adverbs in other dialects, such as a variety of British English. In addition, the work here suggests avenues for future pragmatics research; in particular, the context-related findings in this study (e.g., Claustral/Phrasal, affirmative/negative) may be useful in teasing out answers in the on-going debate over exactly what pragmatic uses are at work in different contexts. While I leave the pragmatics questions to the pragmatics, I look forward to pursuing the sociolinguistic research on some comparable UK data in the near future.
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Corpus


Software


Online sources


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