A WEIRD (LANGUAGE) TALE: VARIATION AND CHANGE IN THE ADJECTIVES OF STRANGENESS

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ABSTRACT: This article presents a synchronic quantitative study of adjectives in the semantic field of STRANGENESS in a large North American city, Toronto, the largest urban center in Canada. The analysis is based on nearly 2,000 adjectives, representing 11 different types, as in *She's really weird* and *She's odd*. The distribution of these adjectives in apparent time provides startling evidence of change. The adjective *strange* is quickly moving out of favor, and *weird* has expanded dramatically, usurping all other forms. Neither linguistic nor social factors are implicated in this change, suggesting that lexical replacement is the prevailing mechanism driving the development. Consideration of the broader context reveals that renewal and recycling of these adjectives is rooted in the history of English and is progressing in parallel at least across British and North American English. The actuation of the shift toward *weird* may be rooted in developments in literature and mass media, revealing that adjectives are a vibrant area of the grammar that may be used to track cultural influences on linguistic change.

IN THIS ARTICLE, we target a little-studied topic in dialect or variation research, adjectives. This area of grammar is vast in lexical variety, with overlapping meanings and apparently random choices, undoubtedly one of the reasons it has not been the subject of quantitative investigation till now. Our first aim is to document how to approach dialect differences, variation, and change in adjectival use systematically. We begin by utilizing a series of computational techniques to explore the data to delimit the investigation. Crucially, we have at our fingertips one of the largest corpora of spoken vernacular North American English, the Toronto English Archive (TEA). Moreover, it is socially stratified and sampled across a wide age range of individuals born from the early to late twentieth century. Together, the computational methods and this substantive data set provide key elements for uncovering relevant and timely variation within the adjectives of contemporary (North American) English. Following sociolinguistic methods, we

delve deeply into a particular semantic field of adjectives—those describing out-of-the-ordinary qualities and things—to uncover patterns and trends in the variation and change of adjectives.

ADJECTIVES

According to most grammars, adjectives are (1) descriptive, (2) (often) gradable; (3) inflected morphologically; and (4) can be used in both attributive and predicate functions (Crystal 1995, 211; Biber et al. 1999, 504–7; Huddleston and Pullum 2002, 527–35). Adjectives describe a range of qualities, including color, dimension, size, time, and human attribute. In so doing, they offer extra information about the object signified. Adjectives are gradable in the sense that they can denote degrees of whatever quality is being described (e.g., *very blue/big/early/happy*). Adjectives can also show degree comparatively via morphological inflection (e.g., *blue/bluer/bluest*). Finally, adjectives can be categorized according to syntactic position, as attributive, as in (1), or as predicate, as in (2); they can even stand alone, as in (3).

1. ATTRIBUTIVE
   I wanna see people's weird dresses. [TEA, Helena Lan 16F, 2005][1]
2. PREDICATE
   …cuz guys are weird. [TEA, Venora To 18F, 2004]
3. STAND ALONE
   [HT] All the boys generally don't like bio. Or they don't do as well in it as girls do. Like boys are just kind of like, "It's a girly science." [AH] Weird! [TEA, Helen Tsang 16F, Allie Henson 17F, 2006]

Attributive adjectives occur before a noun (e.g., *weird dresses*), while predicate adjectives occur after a verb (e.g., *guys are weird*). While not all adjectives have all these properties and none of these properties is unique to adjectives (see, e.g., Huddleston and Pullum 2002, 528), they offer a composite picture of the adjectival functions we will be concerned with in this study.

In studies of language, adjectives are most often studied with respect to their preferred left-to-right order, as in **green, soft, nice large cushions* (e.g., Dixon 1977; Quirk et al. 1972, 924) or their grammatical development from attributive function to being placed after determiners and employed in quantifier uses, as with the shift of *a different place* (meaning distinct places) to *different places* (meaning many places) (e.g., Adamson 2000; Breban 2008). To our knowledge adjectives have rarely, if ever, been studied using dialectological or sociolinguistic methods. Instead, the vast majority of research involving adjectives comes from psychological investigations that rely on

adjective choice as a means to study human behavior and change. Gough and Heilbrun's (1965, 1983) well-known Adjective Check List (available from http://www.mindgarden.com/products/acl.htm) is essentially an assessment tool for identifying psychological states. Individuals check off any number of 300 commonly used adjectives in the check list (e.g., *intelligent, cautious, clear-thinking determined*) that are salient to how they feel at the time of evaluation. Their choices and how these choices change according to circumstance offer important insights into human nature. Indeed there is a vast literature on this research program (e.g., FormyDuval et al. 1995; Hatzivassiloglou and McKeown 1997; Mayer 2004; Itzhar-Nabarro, Silberschatz, and Curtis 2009) demonstrating that adjectives are a critical window on the human psyche. These studies suggest that adjectives warrant further sociolinguistic and dialectological scrutiny; however, the surprising dearth of research on this feature means that there is little upon which to base a new linguistic investigation. This led us to employ a number of novel data exploration techniques to substantiate and inform our method.

COMPUTATIONAL TECHNIQUES
FOR DATA EXPLORATION AND ANALYSIS

With a large corpus of spoken language material at our disposal—the Toronto English Archive (TEA) (Tagliamonte 2003–6)—we leveraged basic techniques in computational linguistics to identify linguistic features to target for investigation. A FEATURE consists of any computationally identifiable linguistic pattern; it is distinct from the sociolinguistic notion of linguistic VARIABLE (Labov 1972), which requires multiple synonymous alternatives and careful manual circumscription of those alternatives (e.g., Guy 1993; Wolfram 1993; Tagliamonte 2006a). Features cannot be used directly in an analysis of linguistic variation, but they can point in the direction of interesting variables for study. For instance, if a word is found to be, on its own, a useful feature for distinguishing age, then that word along with its synonyms as a structured set (Labov 1972, 127) can be studied as a linguistic variable and a typical variation analysis undertaken.

Using features in this way facilitates automatic exploration of a huge space of possibilities and provides a statistical measure to identify the promising ones. In our exploration, the initial feature set consisted of all unigram, bigram, and trigrams (i.e., sequences of one, two, or three) of words, part of speech, and mixtures of the two. For part-of-speech tagging, we used the Tree Tagger (Schmid 1995). For example, one trigram feature might be *take*-PRP-*out*, where PRP refers to a personal pronoun, such as *it* or *him*.

Including part-of-speech tags allows for more general features, ones less tied to specific surface representations (i.e., words); they also allow for partial circumscription of context and function; for example, the word *so* is very ambiguous, but the bigram *so*-JJ (JJ = ADJECTIVE in our tag set) is (nearly) always the intensifier form. This was not a major factor in our identification of promising linguistic variables for investigation, but it was instrumental in identifying phenomena that might not otherwise be suspected of relevant variation and/or change (Brooke and Tagliamonte 2012).

In a corpus the size of the TEA (approximately 1.2 million words) (see Tagliamonte 2006a), there are literally hundreds of thousands of potential mixed trigram features. The first step is to automatically remove extremely rare features (those appearing less than five times across the corpus), since these are unlikely to lead to viable phenomena to analyze quantitatively. The second step is much more complex: the remaining features must be validated in terms of their ability to predict the various sociolinguistic factors that are present in the corpus (e.g., age, sex, job type, education). The metric used for this is called INFORMATION GAIN, which measures the change in entropy (predictability) between a situation in which there is no knowledge about the presence or absence of a feature and one in which there is. One advantage of information gain over raw feature counts is a natural preference for common features that distinguish factors but are well spread among the individuals in the corpus; a single person who uses one feature repeatedly will not cause it to be ranked high according to information gain, since one individual represents a small portion of the overall probability. Information gain is employed by machine learning models, such as decision trees, and is used generally for feature selection. Note that information gain is mathematically distinct from the notion of statistically significant differences in distribution, though the two will often agree. The analyses we report here used the information gain ranker available in the WEKA machine learning suite (Witten and Frank 2005).

Table 1 shows the top-ranked features from the TEA by information gain relative to the task of predicting whether an individual is over or under 30 years of age (we have omitted some repetitive features). This is just a small sample of the most highly ranked features (as measured by information gain). There are actually thousands of *n*-grams that have positive information gain (though the vast majority have less than 0.2). Interestingly, many of the features in table 1 had already been subject to study in the TEA. The word *like* and associated expressions is by far the most useful word for distinguishing age; this is no surprise given earlier research on this feature (D'Arcy 2005, 2007, 2008). The sociolinguistic character of intensifying expressions (e.g.,

TABLE 1
Top Trigram Features in the TEA by Information Gain

Feature	Information Gain
like	0.5844
really *adj*	0.4663
just *adj*	0.4113
I was like	0.4110
is pretty *adj*	0.3411
friends	0.3386
weird	0.3275
cool *adv*	0.2908
hang out	0.2832

really, *just*, *pretty* adjective) has also been investigated (Tagliamonte 2008), with a notable story of linguistic change. The second-most highly ranked individual word, *friends*, highlights a danger of this approach. The word is a useful distinguisher of young versus old because of differences in the preferred topics and recounting of actions (see also *hang out*) of each group, but not because the word is of any real sociolinguistic or dialectological interest. This foregrounds a critical and foundational axiom: although statistical methods may help bring new variables to the awareness of researchers, they cannot substitute for a thoughtful linguistically informed analysis. Indeed, information gain does not indicate directly whether a feature was preferred by one group over another. It only identifies features (forms or words) relevant to the task of distinguishing one group from another. It does not explicitly connect features (forms or words) and sociolinguistic factors, even though a connection may be intuitively apparent. To conduct the type of analysis that would substantiate the connection, a different method is required, which we will come to later. In this case, the high information gain values for the features in table 1 reflect that these phenomena can be used to distinguish young from other age groups in the context of automatic classification.

The third-most important individual word for distinguishing age (and thus suggesting ongoing language change) is *weird*, often an adjective. We might have predicted that an adjective like *cool*, with its highly colloquial associations, would appear high in this list (and, in fact, it does), but *weird* is even higher, despite having (in our opinion) no strong stylistic biases. Nonetheless, it was apparent that young people in Toronto were using *weird* much more often than the older population. This surprising result was the catalyst for the present study and so began our consideration of adjectives as a potential feature for sociolinguistic and dialectal scrutiny.

SOCIAL AND REGIONAL CORRELATES

Many adjectives are relatively unremarkable—*good*, *bad*, *first*, *last*, *hot*, *cold*, *black*, *white*, *little*, *big*, *wonderful*, *pretty*, *funny*, *nice*—and can be considered part of the standard repertoire of adjectives in any individual or community. Yet, when we started investigating adjective variation further, we discovered that it was just as easy to find nonstandard, locally situated, and socially marked adjectives, such as *cool*, *shitty*, *teensy*, *humungo*, and *sick*. Moreover, contrasts between learned, standard, informal, or highly vernacular uses abound (e.g., *timorous* vs. *afraid* vs. *scared* vs. *chicken* [in the sense of cowardly, e.g., *he's too chicken to do it*]). Some adjectives are regionally delimited, such as *gnarly* for older hippy California or *cheeky* for British or *wicked* for New England. Further, some are associated with communities of practice or social networks, such as *epic* for gamers or *bush crazy* for tree-planters in Northern Ontario,[2] and there are undoubtedly countless other examples. Many adjectives are typical of older rather than younger individuals (e.g., *terrific* vs. *awesome*; *bad* vs. *bummer*). In sum, adjectives vary tremendously, and they have social connotations in abundance, especially when attention is drawn to them.[3]

Not surprisingly, adjectives have also been the source of prescriptive commentary, particularly with regard to their changing nature and novelty, as can be inferred from the following entry about *weird* from the *Dictionary of Modern English Usage* by the British schoolmaster Henry Watson Fowler:

4. a. *weird*, a word ruined by becoming a "vogue-word." [Fowler 1927, 703]
   b. *vogue-word*, Every now and then a word emerges from obscurity […] into sudden popularity […] they are not part of the normal vocabulary, but still repulsive to the old and the well-read. [Fowler 1927, 697]

As we shall see the stigma incurred by *weird* in the early twentieth century may have been a herald of things to come. Nowadays, there are many newer forms that might be better suited to the label "vogue-word" in the adjectival system.[4] Thus, it appears that adjectives may tap into the social nature of linguistic change: not only do they vary from place to place, from time to time, and from one social group to another, but also according to internal mental states and processes. This hypothesis is borne out through cursory observation of adjectival use in the most typologically ubiquitous adjective meaning, 'good'. For example, based on the first author's personal experience in York, England, in 1997, the most frequent trendy adjective to refer to positive affect was *brilliant*, as in (5). In Toronto in the early 2000s, the adjective for this meaning was *awesome*, as in (6). By 2012, *sick* had come into favor, particularly among young people, as in (7), and by 2013, it is

dope, as in *That's dope!* (overheard in use by Tara Clews, age 22, Toronto, Aug. 5, 2013).

5. a. The first things that we did that was exciting was going to the tech dance. Oh, that was BRILLIANT! [YRK, Gillian Green 45F, ca. 1997]
   b. It was a BRILLIANT holiday, certain bits of it I still vividly remember. [YRK, Angie X 20F, ca. 1997]
6. a. I've never seen an eighty-five before. I'm so happy. Yay. That was AWESOME. [TEA, Luke Young 19M, 2005]
   b. And like I don't know, she just has like a really AWESOME job. [TEA, Katherine Berazzi 18F, 2003]
7. I don't think I've had a lot of birthday parties. Oh I remember once when I was like ten we went to Jim Jam, which in Ottawa is like this big like massive like tubes and ball pits and stuff. That was SICK. That was a good one. [TEA, KPritchard 24F, 2012]

Other independent linguistic processes involved in semantic change include morphological clipping, as in (8), analogical extension (9), and various nonstandard affixation processes (10).

8. MORPHOLOGICAL CLIPPING
   a. *adorable → adorbs*
   b. *ridiculous → ridi*
   c. *awkward → awk*
   d. *obvious → obvi*
   e. *fabulous → fab*
   f. *legitimate → legit*
   g. *wacky → wack*
9. ANALOGICAL EXTENSION
   lame 'unoriginal; boring' → *lame food*
10. NOVEL AFFIXATION WITH *-ASS*
    a. *bad ass*; *weak ass*; *kick ass*
    b. Remember how he always made fun of Don's sunglasses? Those LAME-ASS blue ones that I took away and confiscated. [TEA, Clara Felipe 18F, 2004]

The main point of these observations is to highlight the extent of linguistic variation and change in this system of grammar and the wealth of linguistic phenomena available for exploration.

One important characteristic of most of the adjectives we have mentioned in this section is that they are highly subjective, usually with fairly strong positive or negative connotations. This aspect may explain their tendency toward change. More so than fully objective adjectives (e.g., colors, size), they may tend to be bleached of their positive or negative force by overuse

or by use by the wrong social group. This necessitates the rise of a new word to carry the intended meaning. Since adjectives are more likely to carry this kind of subjective information, they are of more interest in this regard than nouns and verbs.

ADJECTIVES AS A LINGUISTIC VARIABLE

The problem for the analyst is to establish convincingly how adjectives can be studied quantitatively and in so doing to determine whether the choice of adjective is a bona fide linguistic variable. First, as we have just demonstrated, variation among (partial) synonyms is apparent and indeed more robust than might be expected. This establishes that semantic fields, just like other systems of variation, evidence longitudinal LAYERING (Hopper 1991, 22–31). Layering can be identified by the coexistence of newer forms with an already existing layer of functionally equivalent ones. Second, super tokens—alternations from one synonymous form to another in the same stretch of discourse by the same individual (Tagliamonte 2006a, 96)—are frequent, as in (11). Indeed, even cursory investigation of corpus data makes it apparent that alternation of adjectives for comparable meaning can be found in many semantic fields, including many varied alternatives to 'good' and 'bad', as in (12).

11. a. People are so DUMB. If I can talk my way out of things– like reason with them, like "this is STUPID," then fine. [TEA, James Watson 15M, 2007]
    b. GREAT, GREAT idea guys. Like, GOOD thinking. [TEA, Anita Thompson-Cambria 19F, 2003]
    c. She's really WEIRD. She's ODD. [TEA, Kelly Mayewsky 18F, 2005]
    d. [JL] WEIRD, eh? [JS] That is STRANGE. [TEA, Jim Lear 51M, Interviewer JS (age unknown)F, 2003]
    e. I don't mind him, he's just WEIRD, CREEPY. Like, people we work with are weird. [TEA, Katherine Berazzi 18F, 2003]
    f. [TF] lol your SICK [MF] im GREAT for many reasons. [TEA, Terrence Flemwood 16M, Interviewer MF 16F, 2005]
    g. Oh she was STRANGE – She was DIFFERENT. [TEA, Margaret Williams 49F, 2003]
12. a. 'good' (*great, wonderful, awesome, sick*)
    b. 'bad' (*terrible, awful, lame, sucks, blows*)
    c. 'peculiar' (*weird, bizarre, odd, creepy*)

Early work in variationist approaches to variation explored this possibility of using semantic fields as a foundation for circumscribing the variable context for semantic and lexical variables. For example, Sankoff, Thibault,

and Bérubé (1978) proposed a simple model for alternation among partial synonyms using semantic domains. Based in earlier work by Sankoff (1971), they showed that a combination of ethnosemantic methods and distributional linguistic criteria can work together to substantiate a lexical choice set. In the semantic field they analyzed, verbs meaning 'dwell', they discovered that the lexical choices were highly delimited by social factors: use of *habiter* 'live' was circumscribed to highly educated professionals, while *rester* 'stay/remain' was used more often by working-class speakers (Sankoff, Thibault, and Bérubé 1978, 30–31). From this research developed the notion of "weak complementarity," the idea that linguistic variables can be identified by their DISTRIBUTION across the speech community rather than by the fact that they mean exactly the same thing (Sankoff and Thibault 1981).

Support for this type of analysis within the adjective system comes from historical research on adjectives in the history of English. Breban (2008) conducted a study on the adjectives of difference (e.g., *different*, *distinct*, *divers(e)*, *several*, *sundry*, and *various*) and demonstrated that they could be treated as a set of "layered" forms in the grammar (Hopper 1991). Taking this cohort as her baseline, her study offered insights into grammatical change inside the noun phrase as these adjectives shifted from attributive functions to determiner and quantifier uses. While Breban's (2008) study focused on grammatical developments that are not the focus of the current investigation, the relevant point is that she started with a set of adjectives that expressed the same general meaning. The computational tools offer evidence of change in apparent time across the corpus under investigation, while the research on semantic fields and our preliminary investigations into the corpus reveal that *weird* has a defensible set of alternates. Building on these studies and given the strong evidence from the information gain analysis, we target a specific semantic field from the general inventory of adjectives—the semantic field meaning STRANGENESS. Given these preliminary investigations, we now embark upon the first systematic exploration of adjectival variation in English, beginning with a *weird* historical overview.

DIACHRONY AND SYNCHRONY OF ADJECTIVE VARIATION

The word *weird* has been part of the English lexicon for centuries. However, it was not always an adjective. In Old English *weird* was a noun referring to the principle, power or agency by which events are predetermined, that is, fate or destiny. By 1300 it was used as a verb, and by 1400 an adjective, concomitantly developing derivational and inflectional morphology (e.g., *-dom*, *-ish*, *-ness*, *-ed*). Such processes reflect typical mechanisms underlying

semantic change, including broadening, semantic extension, and the like (e.g., Fortson 2003, 649). However, here we are concerned instead with variation among synonyms of a set rather than the semantic shifts undergone by a single form. This type of change, lexical variation, is perhaps the most common, most rapid, and most obvious type of linguistic change (Chambers 2001, 193), as "lexical use is always changing" (von Schneidemesser 2000, 420). Lexical variation has been studied extensively from a typological perspective as it relates to language contact and borrowing (e.g., Harvey 2011). It has also been useful in measuring correspondences between and among languages (e.g., Sankoff 1973). Lexical variation is also the cornerstone of dialectology where shifts from one lexical item to another in the same semantic field are notoriously social, both regionally and ethnically delimited (e.g., von Schneidemesser 2000; Chambers 2001). People tend to be highly conscious of lexical variants, especially when a common word differs dramatically from one place to another, as with British English *WC* and *loo*, American English *restroom* and *toilet*, and Canadian English *washroom*. It can be especially notable when there are generational differences. For example, Canadian English *chesterfield* 'piece of living room furniture that seats more than two people' was current in the early twentieth century but is so rarely used at the beginning of the twenty-first century that young people do not even know what it is.

With all this in mind, we inventoried the synonyms for *weird* using the *Oxford English Dictionary*'s online Historical Thesaurus and discovered that competition and change within the semantic field of STRANGENESS has been going on in English throughout its recorded history. The adjective *strange*, as in (13a), was first attested in 1338 and appears to have been the foremost means to convey this meaning for several centuries (*OED*).[5] However, *unusual* (13b) came on the scene by 1582, followed soon thereafter by *odd* (13c), *peculiar* (13d), and *bizarre* (13e).

13. a. And forsoth I couth[e] noght / so STRANGE Inglis as þai wroght. [Robert Manning, *Chronicle* (1338), lines 115–16; citing the published version, *The Story of England*, ed. Frederick J. Furnivall, Rolls Series (London: HMSO, 1887), 4]

b. His foes old Priamus throgh court and cittye beholding / On rusty shoulders sloa clapt his VNUSUAL armoure. [Richard Stanyhurst, trans., *Thee First Foure Bookes of Virgil His Æneis Translated intoo English Heroical Verse* (Leiden, Netherlands: Iohn Pates, 1582), bk. 2, 36]

c. He is too picked, to spruce, too affected, to OD as it were, too peregrinat as I may call it. [William Shakespeare, *Love's Labour's Lost* (London: Cuthbert Burby, 1598), act 5, sc. 1, lines 13–14; citing a photo reproduction, Univ. of California, Berkeley, Library Photographic Services]

  d. The Tongue of a Serpent is PECULIAR, for […] it is also clouen at the
     tippe. [Edward Topsell, *Historie of Serpents; or, the Second Booke of Liuing
     Creatures* (London: Jaggard, 1608), 11]

  e. so that her Attire seemed as BIZARE as her Person. [Edward Herbert, *The
     Life of Edward Lord Herbert of Cherbury* (a1648); citing 2nd ed. (London:
     Strawberry-Hill, 1764), 112]

Additional synonyms were added to the semantic field in the eighteenth
century, with *eerie* (14a) and an ongoing layering of new variants in the nine-
teenth century, including *funny* (14b), *weird* (14c), and *uncanny* (14d).

  14. a. See! – tho' night comes dark and EERIE. [Hector Macneill, *The Waes o'
         War; or, The Upshot o' the History o' Will and Jean* (Edinburgh: Guthrie,
         1796), pt. 3, line 79]

       b. This study to decrease our influence is FUNNY. I cannot understand it.
         [T. C. Metcalfe, "The Policy of Sir George Barlow" (1806); citing the
         published version, *A Selection from the Dispatches, Treaties and Other Papers
         of the Marquess Wellesley*, ed. Sidney J. Owen (Oxford: Clarendon, 1877),
         809]

       c. Some said, I was a fiend from my WEIRD cave, / Who had stolen human
         shape. [Percy Bysshe Shelley, *Laon and Cythna; or, The Revolution of the
         Golden City* (London: Sherwood, Neely and Jones, 1817), canto 9, stanza
         8, lines 4–5]

       d. If men, gentlemen born, will read UNCANNY books, and resolve to be
         wizards, why, they must reap what they sow. [Edward Bulwer Lytton, *The
         Last of the Barons* (London: Saunders and Otley, 1843), vol. 1, bk. 1, chap.
         7, p. 116]

The consistent successive documentation of lexical variation across 700 hun-
dred years or more in real time presents a longitudinal trajectory of change.
It is entirely possible that these adjectives have been engaged in a long line
of rolling recycling of the same semantic field, as may be inferred from the
progressive dateline of attestations in the *OED* from one century to the next,
as in (15). The adjectives are ordered by their appearance; those arising in
the same century are placed on the same line. Note that the nineteenth
century was particularly rich in the development of new forms.

  15. strange 1338→
       unusual 1582→ odd 1598→
       peculiar 1608→ bizarre a1648→
       eerie 1796→
       funny 1806→ weird 1817→ creepy 1831→ uncanny 1843→
       whacky 1938→ freaky 1966→

However, an issue arises: how far can the net be cast for variants to belong to the same semantic field, that is, to mean the same thing? The analyst immediately encounters innumerable questionable cases: for example, *creepy* (16a), *whacky* (16b), or *freaky* (16c).[6] Should these be included in the variable context or not?[7]

16. a. I feel somehow quite CREEPY at the thought of what's coming. [Baroness de Katzleben (Caroline Bowles Southey), *The Cat's Tail: Being the History of Childe Merlin* (Edinburgh: Blackwood, 1831), 30]
    b. They all want to know why he done it, and is he gone clean WHACKY. [Jeremiah Digges (Josef Berger), *Bowleg Bill, the Sea-Going Cowboy; or Ship Ahoy and Let 'er Buck!* (New York: Viking, 1938), 28]
    c. I think it would do everybody good to take LSD. But soon it's gonna get pretty FREAKY. [Warren R. Young and Joseph R. Hixson, *LSD on Campus* (New York, Dell, 1966), vi]

The general synonymy of these words (i.e., same semantic field), in addition to the fact that can all be found in variation in contemporary data (i.e., distributional patterns) and in the TEA in particular, as in (17), is consistent with the methods outlined in Sankoff, Thibault, and Bérubé (1978).

17. a. Charles is really well mannered but it's to the extent of being CREEPY. [TEA, Anastasia Vikhailovitch 16F, 2005]
    b. [CO] At the top, the drop is like maybe a hundred feet. [MH] Holy-crap. Wow, that- so that must be pretty FREAKY in the winter time. [TEA, Christopher O'Neil 16M, Interviewer MH (age unknown)M, 2002]
    c. [NL] And then there's your extreme anorexic stuff. And anorexic people. Which over-do it. [JL] Those are FREAKY. Those are just plain FREAKY. [NL] Oh yeah. Really really FREAKY. [TEA, Ned Lui 18M, Interviewer JL 19F, 2005]
    d. did your power go all WACKY too? [TEA, Julio McCleary 16M, 2004]
    e. They have like dyed hair or-whatever. Their fashion sense is WACK. [TEA, Luke Lung 19M, 2005]
    f. And you know WACKY stuff is really amazing out there. [TEA, Richard Gruensten 26M, 2004]

Thus, we cast a wide net, including all potential synonyms within the same semantic field, but restricting ourselves to those that are unambiguous and that can be found in the TEA.

The scenario of linguistic variation, change, and historical development in the evolution of these adjectives presents a fruitful area for study from a quantitative variationist perspective. Earlier work (Tagliamonte 2008), demonstrated that adverbs of intensification (e.g., *very, really, so*) undergo

this type of rapid change. Moreover, the cycle is sufficiently telescoped to expose the ongoing progression of change enabling the analyst to tap the mechanisms of development. Indeed, the rise and fall of current intensifiers was visible in the TEA through the construct of APPARENT TIME, that is, where variation in a linguistic form is examined by the age of the individuals in the community as a proxy for the progress of a change in real time (e.g., Bailey et al. 1991; Chambers 2001). For example, if a form steadily increases from oldest to youngest individuals, this would be taken as evidence that the form is incoming. Since change typically proceeds incrementally according to systemic patterns in the grammar, plotting such patterns by age may well reveal the mechanisms underlying the change. In addition, because the development of adjectives is apparently sensitive to social factors, such as sex, group membership, and emotionality of content, extra-linguistic distribution patterns over the same period may prove informative to the developmental process. The following testable hypotheses can be put forward:

i.   The frequency of adjectives within a particular semantic field may be related to their degree of diffusion.
ii. Correlation of linguistic patterns with an individual's age can mirror the diffusion process
iii. Correlation of adjectives with social factors can be taken to tap into the social evaluation of the particular adjective within the community.
iv. Through the examination of (i), (ii) and (iii), it may be possible to track the interrelationship between linguistic and social factors in language change and by extension the impact of these developments on regional variation.

WHAT TYPE OF CHANGE?

What model of linguistic change can account for variation and change within a particular semantic field of the linguistic category ADJECTIVE? Such a process of change is outside the realm of phonology, morphology, and syntax. Instead, the change necessarily involves the lexicon and meaning. Most studies of semantic change involve the transformations of a single form as it undergoes categorical and meaning shifts (Breban 2008), and most studies of lexical change involve nouns (e.g., *sneakers*, *pop*, and *chesterfield*) (Chambers 2001). In this case, the object of investigation is an open class in the grammar, namely adjectives, but there is a qualitative difference (we think) in the level of conscious awareness of adjectival use over other open class items such as nouns (although this is an empirical question). How do these facts impact variation and change? Previous research on the use of intensifying adverbs, yet another open class category, has demonstrated ongoing processes of

renewal and recycling. As one form loses its force, such as *very*, a new one comes in to take its place, such as *really* or *so* (Tagliamonte 2008). Further, social processes appear to be involved in the selection of one form over another. However, older forms in the system do not disappear, but remain as low frequency variants within the same field. Further, new and older forms jostle for supremacy over time, sometimes returning to supremacy, sometimes correlated with generation, sex, variety, geography, or some combination of these. Variation and change within a semantic field may well develop and pattern in the same way. Thus, two different processes are relevant. The first, RENEWAL, which is when a new form enters the language and comes to be used for the same meaning as an earlier form. This is visible in the historical record of the *OED* and is suggestive of the information gain results discussed earlier. The second, RECYCLING, is when a set of related forms changes in relative frequency over time such that a dominating form rises and falls in the proportion it represents of the whole. In the analyses that follow, we will frame our interpretations according to these processes.

In sum, we have now established that adjectives have several key characteristics that make them an ideal choice for the study of linguistic change: (1) versatility and color, (2) capacity for rapid change, (3) renewal of different forms, and (4) recycling of older forms. All of these characteristics suggest constant change, as waning forms are replaced with newly coined ones that can more effectively identify qualities. The data exploration tools we have used confirm that certain adjectives are changing in apparent time in our corpus and that at least one member of the semantic field of adjectives of STRANGENESS is highly implicated. This means that in any given variety, at any point in time, the coexistence of different forms may mirror older and newer layers in the process of change. In addition, the adjectives of STRANGENESS have a number of key methodological requirements: they are relatively robust (most individuals use them); they are part of a structured set in the grammar (i.e., the same semantic field); and they fulfill the "Principle of Curiosity" (i.e., they are intriguing enough to draw the analyst into a lengthy study; Tagliamonte, forthcoming). We now situate the data and further hone our methodology.

DATA AND METHOD

The TEA, a socially stratified community-based corpus (age, sex, job type, education), offers an ideal means to tap ongoing linguistic change. This corpus is based on informal conversations with people born and raised in the city of Toronto in the early 2000s (Tagliamonte 2003–6). Participants

were chosen using a combination of quota-based random sampling and social networking and participated in sociolinguistic interviews, a standard method designed to consistently elicit vernacular speech regardless of situational circumstances. The corpus contains a wealth of stories, reminiscences, and casual interactions, testimony to the success of this method, and well over one million words of rich informal data. Given these characteristics, the TEA provides a fitting site for examining language variation and locally based change (for further information, see Tagliamonte 2006a, Tagliamonte and D'Arcy 2007a, 2007b).

CIRCUMSCRIBING THE VARIABLE CONTEXT. Building on the fact that adjectives meaning 'strange/unusual' often alternate, have undergone longitudinal renewal, and continue to be layered in contemporary English, ALL synonyms with this range of meanings were extracted from the TEA using ANT-CONC (Anthony 2012). Because the data are not speech tagged, this process returned all instances of the target form. Immediately, numerous anomalies became apparent, requiring careful weeding of the data. First, many of the extracted forms were not adjectives, as in the metalinguistic aside in (18a), or the use of *odd* as 'occasional' (18b) or as a suffix (18c). Fortunately, these occurred relatively infrequently in the data; however, it is important to exclude them as they are not part of the semantic field under investigation.

18. a. And you see what life is all about (BIZARRE noise) and you get everything man in there. [TEA, Augusto Nappa 53M, 2004]
     b. Um, maybe you-know everyone got an ODD job here or there. [TEA, James Barber 22M, 2003]
     c. It's very weird, 'cause in grade five and six, two classes, twenty, there's forty-ODD of us. [TEA, Jane Doe 26F, 2006]

Second, some forms were adverbs, as in (19). These had to be carefully culled from the data as well.

19. a. And some of the boys really do dress WEIRD to my North American eye. (laughs), you know? [TEA, Pirkko Runonen 50F, 2004]
     b. Like they talk weird and they dress STRANGE but do you think that reflects? [TEA, Interviewer SE 20F, 2004]

Third, we discovered a relatively productive inflectional process with the suffix *-o*, both among adjectives in the targeted set, as in (20a) and (20b), as well as others (20c–20f).[8] Where the resulting word is not an adjective, it is considered to be outside the variable context..

20. a. [MF] lol i dont see why you signed on to put your status as away [NK] too many WIERDOS on my list [TEA, Interviewer MF 16F, Neil Kuroda 16M, 2005]

    b. No other strange WEIRDO teachers? [TEA, Matthew Yan 12M, 2005]

    c. Cool. NEATO. Ah! [TEA, Mark Scata 19M, 2005]

    d. no PROBLEMO it wouldnt be right if i didnt check up on you.....would it? lol [TEA, r 18M, 2010]

    e. my mom is scared of squirrels still. [/] she sees a squirrel and she'll be like "AHH IT'S A WACKOO WACKOO!" [TEA, Helen Tsang 16F, 2005]

    f. [PP] Because I like Michael-Jackson. [MV] Why? Everybody like I know likes Michael-Jackson. [PP] It's just the rumors. [MV] Oh yeah, WACKO JACKO, I get it. [TEA, Parvati Prakesh 14F, Interviewer MV (age unknown) M, 2002]

Fourth, there was at least one collocation pattern containing an adjective of STRANGENESS that has become lexicalized, as in (21):

21. I'd go out with Dad THE ODD TIME. [TEA, Hank Lyntimal 78M, 2004]

A trickier problem arose with the adjective *funny*. This lexical item is anomalous because it has two indistinguishable readings: (1) *funny* 'strange' and (2) *funny* 'laughable'. Indeed, the ambiguous meaning of the word funny in English is enshrined in the well-known query "Is that funny 'ha ha' or funny 'peculiar?'" (*OED*), as in (22)

22. a. **funny-peculiar** *adj. colloq.* used to distinguish sense A.2 from sense A.1 (= *funny-ha-ha adj.*), the two antithetic expressions freq. appearing together. [*OED* s.v. FUNNY]

    b. CHRIS: That's funny. [¶] BUTTON: What do you mean, funny? FUNNY-PECULIAR, or FUNNY HA-HA? [Ian Hay (John Hay Beith), *Housemaster: A Comedy in Three Acts* (London: French, 1938), act 3, line 78]

    c. John Gubbins leant forward, smiling in a FUNNY-PECULIAR not FUNNY-HA-HA way. [John Verney, *Friday's Tunnel* (London: Collins, 1959), 227]

Although in rare cases it was possible to infer that the meaning of *funny*, was 'strange', as in (23a)–(23d), on contrast to 'laughable', as in (23d), in the vast majority of cases, it is impossible to disambiguate form and function, as in (24a) and (24b).

23. a. It's so FUNNY. It's WEIRD [TEA, Mindy Chow 17F, 2005]

    b. I'm a WEIRD eighteen year old girl with funny colored hair who hasn't touched a boy in public in like at least a year. [TEA, Kelly Mayewsky 18F, 2005]

    c. [GS] My dad- my dad's like a minor author and he's spoken at my school before and they asked him to come in as a speaker. And by coincidence I was chosen as the salutatarion for my school's graduation. So, my father spoke right after me in my graduation, which was such a WEIRD coincidence out of all things to happen. [DU] That is kind of FUNNY. [TEA, Grant Simkovic 18M, Interview DU, (age unknown)M, 2006]

    d. I thought it was so FUNNY, I just stood there laughing and laughing. [TEA, June Watson 49F, 2004]

24. a. [GS] They smoke a lot of pot there too. [DU] At your job? [GS] Yeah, like when we're cleaning up, all the managers are smoking up pot and like– [Interviewer] that's pretty sweet. [GS] Yeah, it's pretty FUNNY. I kind of like it cause it's so different from when I work at Club Monaco. 'Cause we don't do that there. Let me tell you. [TEA, Grant Simkovic 18M, Interviewer DU (age unknown)M, 2006]

    b. What's nice about having a big backyard also, um, like we used to set up our badminton net a lot. With that we could play a lot of badminton and stuff, it was pretty fun. Especially when you get my mom and dad playing. That's kind of FUNNY. But, ah, it was good fun. [TEA, Craig Thompson 18M, 2002]

Due to this anomaly, it was infelicitous to include *funny* in the final analysis.[9]

    We also note the recurrent use of adjectives of STRANGENESS with the interviewers of the TEA. Nearly every one of them employed these adjectives as ratification markers in their interviewing style, as in (25). These were, of course excluded as well; however, they expose another phenomenon worthy of further scrutiny.

25. a. [KM] Sean's such a fuck-up. [DD] Really, THAT'S WEIRD. Have you called him or? [KM] I've hung-out with him. [TEA, Kelly Mayewsky 18F, Interviewer DD 18M, 2005]

    b. [BG] Her mother taught my cousins in Simcoe which is just– [GF] Oh God THAT'S WEIRD. [TEA, Brandon Griffo 44M, Interviewer GF 19F, 2004]

    c. [JL] I always had to see the team from Ottawa, or Montreal, or Hamilton [JS] THAT'S STRANGE, why wouldn't they show Toronto? [TEA, Jim Lear 51M, Interviewer JS (age unknown)F, 2003][10]

We were left with 1,187 adjectives in the semantic field of STRANGENESS.

    The variable context thus defined—the semantic field of STRANGENESS and its unambiguous synonyms—provides a vantage point from which the social evaluation and spread of individual adjectives can be tracked as well as ensuring that this analysis can be replicated.[11] In this way, however, we will be able to provide an accountable assessment of the frequency and

patterning of adjectives from an internal grammatical, as well as external sociolinguistic, perspective.

The next step is to determine the inventory of STRANGENESS adjectives that typify the Toronto data and how frequently each one is used so that these results can be used as a baseline for other studies. In addition, we aim to determine the influence and strength of contextual factors, some of which may be implicated in the expansion of use of one adjective or the other into different types and functions. Each adjective was coded for lexical item (i.e., *weird, strange, freaky*); adjective function (predicate or attributive); the individual and each individual's age, sex, and education level. By using fixed effects logistic regression analyses (Sankoff, Tagliamonte, and Smith 2012) and the comparative method, we will be able to determine if any of these factors are statistically significant when combined. Further, the direction of effect, significance, and relative importance of these factors can be used to further elaborate our interpretations (Poplack and Tagliamonte 2001, chap. 5).

RESULTS

DISTRIBUTIONAL ANALYSES. Table 2 shows the inventory, frequency, and proportions of adjectives of STRANGENESS in the TEA. It is immediately apparent that a single form dominates: a full 70.3% of the adjectives are the lexical item *weird*. The closest contender is *strange*, which represents only 14.0% of the data. All other forms are extremely rare. The extent of uniformity

TABLE 2
Overall Distribution of Adjectives of STRANGENESS, Toronto, 2002–6

Adjectives	*N (Percentage)*	
weird	834	(70.3%)
strange	166	(14.0%)
odd	50	(4.2%)
creepy	37	(3.1%)
bizarre	29	(2.4%)
freaky	28	(2.4%)
unusual	19	(1.6%)
eerie	10	(0.8%)
peculiar	7	(0.6%)
wacky	5	(0.4%)
abnormal	2	(0.2%)
TOTAL	1,187	

in this semantic field could not have been anticipated. The next step is to investigate the pattern of change in apparent time.

Figure 1 shows the distribution of the main adjectives of STRANGENESS in apparent time by age group.[12] Each figure shows the overall proportions along with 95% confidence intervals.[13] The confidence intervals offer two insights: (1) the smaller the interval, the greater the precision and certainty attached to each overall point, and (2) statistically significant differences can be inferred where intervals are separated. Nonoverlapping intervals mean that the contrast is statistically distinct; while any point that falls within the interval of another cannot be significantly distinct.

Figure 1 shows a (mostly) steady increase in the use of *weird* across the generations in Toronto and the concomitant decline of *strange*. Note that the shift toward *weird* occurred quite dramatically between the eldest members of the community, over 60 years of age, and the next age group, the 50–59-year-olds. Indeed, a clearly demarcated point of reversal is evident. The oldest generation has a relatively robust inventory of forms. While *strange* dominates the system, a variety of other forms are part of the mix, including *odd*, *creepy*, *weird*, and others (not included in figure 1). However, among the 50–59-year-olds, the system is notably shifted, with *weird* surging to ascendancy and *strange* in decline along with all the other forms. Thereafter, the encroachment of *weird* into this semantic field is abrupt at first, and then

FIGURE 1
Distribution of the Main Adjectives of STRANGENESS by Age Group
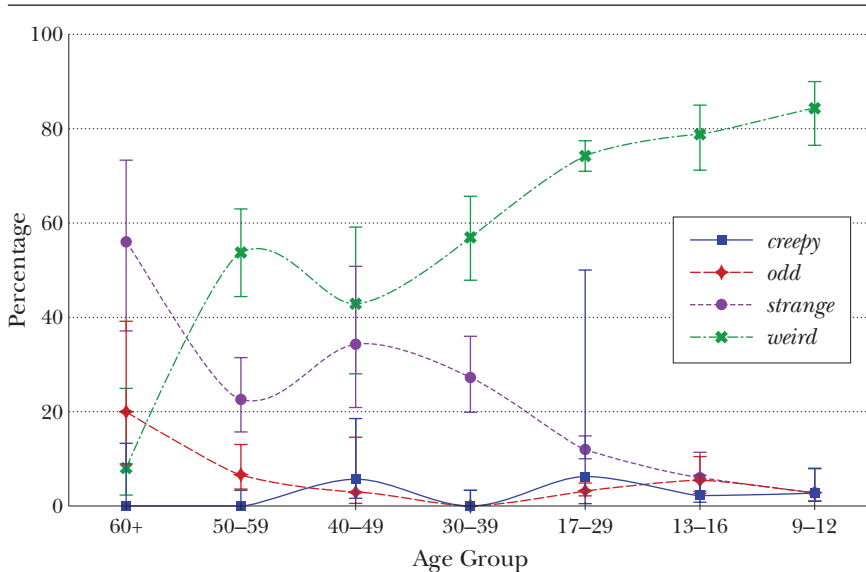
with each successively younger age group, it gains more ground. Among the youngest generation, hardly any other form is used for this semantic sense. *Weird* is supreme.

USE OF *WEIRD* BY SEX OF THE INDIVIDUAL. An association of adjectives with women is one of the few results that have been reported in studies on the adjective use (e.g., Entwisle and Garvey 1969). This jibes with the well-known tenet of sociolinguistics, that females lead linguistic change (e.g., Labov 1990). We might hypothesize, therefore, that women would be leading the surge toward *weird*. Figure 2 tests this possibility by displaying the distribution of *weird* according to sex in apparent time. The predictions for change are that an incoming form will show a monotonic increase in apparent time and that women will adopt incoming variants at about a generation ahead of men (Labov 2001, 274). Figure 2 shows clearly the incremental increase in the use of *weird* across generations. However, there is no male/female contrast in any age group. The slight male lead visible in the figure is not significant as evident from the overlapping confidence intervals. Both males and females in each age group use *weird* to the same degree, and in each cohort, use of *weird* is increasing.

In sum, there is a dramatic changeover in the adjectives of STRANGENESS in contemporary Toronto English. *Weird* is now the dominant word to describe

FIGURE 2
Distribution of *weird* by Sex of the Individual
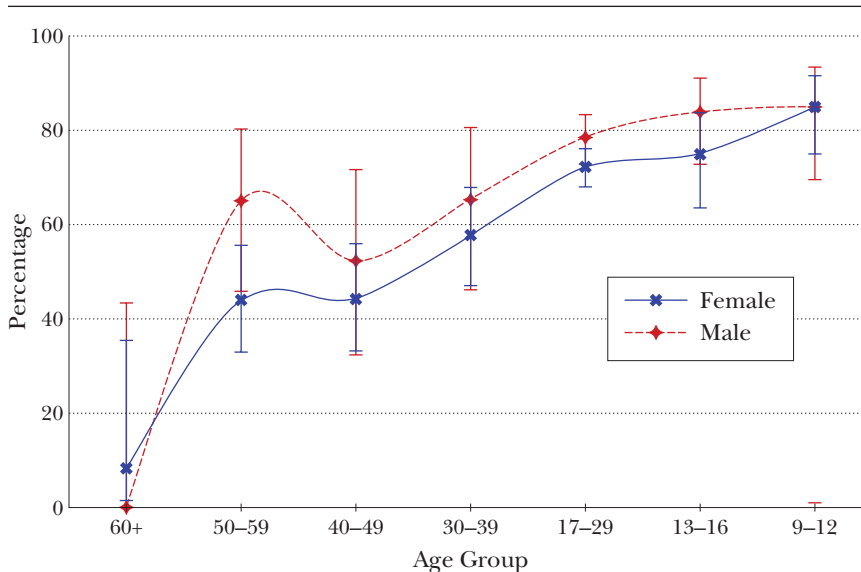
this quality—indeed it is used 85% of the time among adolescents—virtually ousting all other adjectives in its wake. This change appears to be nearing saturation, since the youngest generation only modestly uses other adjectives for this meaning (15%).

It now remains to consider whether there are any linguistic correlates that may underlie adjective use for further clues about this shifting system.

ADJECTIVE FUNCTION. One of the main contrasts among adjectives is the difference in function between predicate and attributive, as in (26). Figure 3 tests this contrast in the data.[14]

26. [CL] I don't know he's just WEIRD. [DD] I think he's just WEIRD to you. [CL] No he's a WEIRD guy. [TEA, Christian Laterman 19M, Interviewer DD 19M, 2004]

Figure 3 shows that adjective function is not a relevant predictor of adjective use. It may appear to have been a factor in the initial rise of *weird*, since the adopting cohorts (the 40–59-year-olds) exhibit a contrast, with predicate adjectives having greater use of *weird* than attributive ones. However, a chi-squared test reveals that neither contrast is significant for the 40–49-year-olds ($p = .53$) or for the 50–59-year-olds ($p > .99$).[15] Among those over the age of 60, there are no uses of *weird* with predicate adjectives. We can conclude that the functional contrast between adjectives is stable.

COLLOCATION WITH INTENSIFIERS. In the Toronto community, there is a change in progress in the use of intensifying adverbs that modify adjectives.

FIGURE 3
Distribution of *weird* by Adjective Function and Age Group
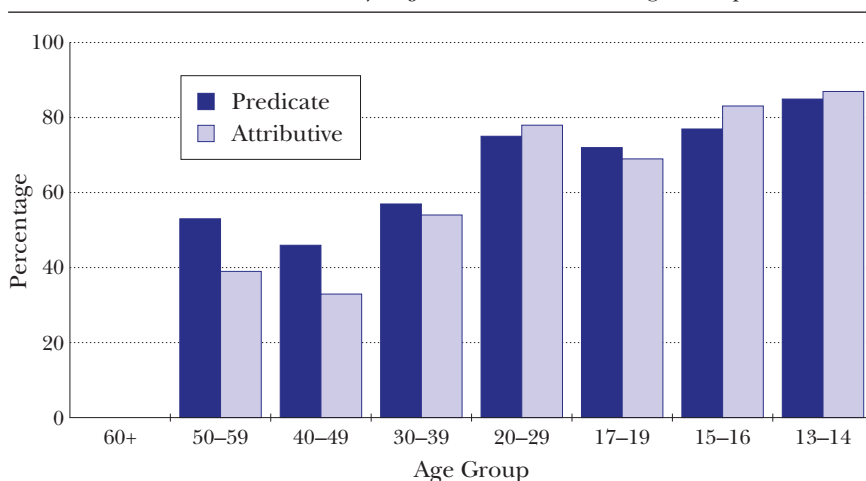
This changeover in adverbs might impact adjective use since the two forms are often collocates, as in (27).

27. a. That was JUST weird man. [TEA, Daniel Friesen 26M, 2004]
    b. And we never met each other at all so, it was VERY weird. [TEA, Jillian Clarin 26F, 2004]
    c. I felt like I was in American high school, like, Saved-by-the-bell kind of high-school. Yeah, it was so weird. So weird. [TEA, Yve Moise 21F, 2004]
    d. [GF] Like how are they weird? [SF] Like they just have REALLY weird style. [TEA, Interviewer GF 19F, Steve Fraute 15M, 2004]

Figure 4 tests this hypothesis by plotting the use of the main intensifying adverbs that co-occur with *weird* according to age.

Tagliamonte (2008) documents a pattern of change in the use of intensifying adverbs such that *really* is rising rapidly as the favored form. However, could this simply be due to increasing use of a frequent collocate such as *really weird*? Figure 4 shows that the increasing use of *weird* as the favored adjective of STRANGENESS is patterning not uniquely, but in step with this change. There is less use of any intensification among the eldest generation, accelerated use of *really* among the middle generations, and a concomitant increase in use of *so* among the two youngest generations, exactly as the concurrent change in intensifiers from *very* to *really* to *so*. This demonstrates that the two changes are evolving in parallel, apparently without impacting each other.

FIGURE 4
Distribution of *weird* When Used with an Intensifying Adverb
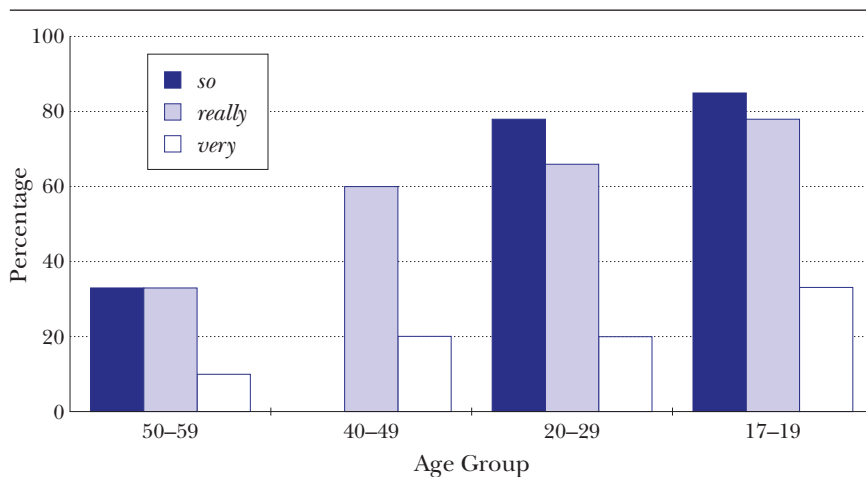
STATISTICAL MODELING. Are any linguistic or social factors statistically significant when they are considered simultaneously? For this endeavor, we will use the fixed effects linear logistic regression embodied in the variable rule program (Sankoff and Rousseau 1979) using the latest implementation (Sankoff, Tagliamonte, and Smith 2012). A number of issues in the data structure require consideration. To test for job type and education, we must restrict the statistical model to individuals over the age of 29 because nearly all the younger speakers are students. This enables the social factors (sex, age, education and job type) to be tested with the internal factors adjective function and co-occurring intensifier.[16]

Table 3 confirms that neither of the linguistic factors are significant nor are any of the social factors. While Goldvarb returns a significant reading for job type, this result cannot be trusted because 19 of the 36 tokens in the less-educated category are represented by a single individual who happened to use an abundance of *weird* tokens, as in (28).[17]

> 28. Home delivery was cheaper than getting it from the box. WEIRD, eh? Yeah, and the paper had to be delivered by seven in the morning, WEIRD nice service, you know. [TEA, Jim Lear 51M, 2003]

Taken together these results support the hypothesis that there is a vibrant, recent change toward *weird* in contemporary Toronto English; however, it is not proceeding according to systemic linguistic or social factors, at least none that were tested here or could be determined from a corpus of this size.

BROADER PATTERNS OF CHANGE. One interpretation of the changeover from *strange* to *weird* is to suggest that it is unique to Toronto, a local anomaly. Therefore, the next step is to put this change into broader context. The most

TABLE 3
Logistic Regression Analysis of Predictors Influencing the Choice
of *weird* among Speakers Over 30 Years of Age

Predictors	FW	%	Ns/cell
Age			
30s	.62	56.6	113
40s	.48	42.9	35
50s	.50	50.0	96
60+	.05	5.9	17
Education			
more educated	.46	75.1	225
less educated	.72	48.6	36

Not statistically significant: sex, job type, adjective function, co-occurring intensifier.

appropriate means at our disposal is to compare the counts of the adjectives of STRANGENESS across comparable contemporary corpora of North American and British English, both synchronic and diachronic.

Table 4 displays the raw frequencies of each of the main forms in the semantic field of STRANGENESS in the TEA compared to Southeastern Ontario, comprising several small towns in the hinterland near Toronto (Tagliamonte and Denis, forthcoming), York England (Tagliamonte 1998), a compendium of dialects in the United Kingdom, North and South (Tagliamonte 2013),[18] and the Helsinki Corpus (Rissanen 1991).[19] In addition, we provide an over-arching check using the frequencies of these same forms from Google. The latter is, of course, a very gross tally of forms and is therefore only a tentative gauge of adjective frequency.

Table 4 is set up with a prevailing logic to it. The TEA represents the population of an urban center, from preadolescents to octogenarians. The

TABLE 4

Counts of Adjectives of Strangeness across Synchronic and Diachronic Corpora

Adjective	Toronto	Clara	Friends	DoC	York	North	South	Helsinki	Google
weird	834	66	179	112	51	5	20	20	389,000,000
strange	166	0	13	37	120	36	26	156	436,000,000
odd	50	1	1	60	118	107	88	18	315,000,000
creepy	37	0	10	0	0	0	5	0	89,600,000
bizarre	29	0	2	5	4	1	0	0	166,000,000
eerie	10	0	0	0	1	3	1	0	19,300,000
abnormal	2	0	0	1	0	0	0	0	18,200,000
peculiar	7	0	0	1	6	3	5	10	65,900,000
uncanny	1	0	1	0	0	0	0	0	18,100,000

NOTE: The corpora represented are as follows: TORONTO refers to the Toronto English Archive (Tagliamonte 2003–6), which is the basis of the analysis presented in this article; CLARA is a subset of these materials from a single individual interviewed every year from 2002–11 (Tagliamonte 2012); FRIENDS refers to the scripted dialogue from seasons 1–8 of the television series *Friends*, the basis of the analysis in Tagliamonte and Roberts (2005); DOC refers to the Directions of Change corpus of Southeastern Ontario English (Tagliamonte 2007–10), a variety spoken in several small towns relatively distant from Toronto (i.e., 2–4 hours); YORK refers to the York English Corpus (Tagliamonte 1996–98), a variety of northern British English; NORTH and SOUTH refer to the Roots Corpus (Tagliamonte 2000–2003, 2013), with the former containing speech sampled in Scotland, Northwest England, and Northern Ireland and the latter from three communities in the south of England, one each in Devon, Somerset, and Sussex; HELSINKI refers to the Helsinki Corpus (Rissanen 1991), data from English ca. 730–1710. The Google results were accessed on July 10, 2011.

data in the next column come from "Clara," a single individual born in 1986 and raised in Toronto. The comparison between the TEA and Clara show that the teenager mirrors the broader community and further, as a member of the youngest generation, that she reflects the overwhelming use of *weird* in the younger generation more generally.[20] This comparison provides a confirmation that the individual reflects the group (see also Guy 1980). The *Friends* materials provide a comparison to contemporary American English among young adults (Tagliamonte and Roberts 2005). Here too we observe a strong concordant distribution of forms—the *Friends* data is mostly *weird.* The next column, the Directions of Change corpus of Southeastern Ontario English, comprises data from Canada, but from several small cities and towns represented again by speakers of a wide range of ages; however, unlike the TEA, it is nonurban. This offers key sociolinguistic contrasts with Toronto in terms of community size, type of social networks, and nature of the language contact situation (Trudgill 2011). Notice the qualitative difference between the TEA and the Southeastern Ontario materials: the adjective *odd,* which we observed to be in decline in Toronto, is more frequent in the outlying areas of Ontario. This is to be expected given the urban-rural contrast in the data. The next column shifts the perspective to the British Isles. Here, we observe that *odd* is also more frequent in Britain generally, in York and in the North and South. As with the Southeastern Ontario materials, this supports the idea that these data represent an older stage in the trajectory of forms in which *odd* was a more popular form. The data in York come from a relatively standard variety of northern British English, from speakeres who span in age 19–92 years. In these data, notice that *strange* holds the most frequent slot, with *odd* as a close second and *weird* is rare. This suggests that *strange* and *odd* are precursors to the Toronto system, an interpretation that is supported, if we take another (metaphorical) step back in time, by looking at the next columns over, the North and South. The data labeled "North" come from small villages in Southwest Scotland, Northwest England, and Northern Ireland, far distant from any large cities, and from the oldest members of the community in each location. The data labeled "South" come from several small villages in Devon, Somerset, and Sussex, in the south of England, again from the oldest generation. This means that the data in both categories represent not only conservative areas, but also the most conservative individuals in those areas. In all these locales, *odd* is the dominant form; *strange* and *weird* are also present but are much less frequent. We are able to take one more step backwards in time with a comparison to the Helsinki Corpus (ca. 730–1700), where we see that *strange* dominates the system, and *odd, weird,* and *peculiar* are infrequent, although it is important to note that these historical data come from written sources only. However, earlier

examples from the *OED* suggest a variety of synonymic displacements in the period represented by the Helsinki Corpus—or, if not displacements, then at least competition. Finally, back to the present, Google offers a contributory viewpoint: given the nature of this universal data repository, the fact that the same main adjectives of STRANGENESS occupy the top spots (i.e., *strange, weird, odd*) is an overarching confirmation that the whole is not discordant with the corpus-based "parts" in the rest of the comparison. If we interpret the array of corpora in table 4 as a proxy for diachronic development, we now have an arresting picture of adjectival change in English.

To further substantiate these trends, we performed a Google Ngram for each of the main adjectives in our analysis: *peculiar, strange, weird, odd, eerie*, and added in *funny*. The results for American English are shown in figure 5 and for British English in figure 6.[21] Together, they show remarkably similar profiles. The adjective *peculiar* dominated these two major varieties of English until the mid-seventeenth century, when *strange* overtook it. *Funny* increased in frequency at the turn of the twentieth century, and *odd* increased sometime later. *Weird* shows a distinct rise in the American English in the late nineteenth century, heralding the results we have presented here from the TEA. In sum, the corpus-data as well as the Google searches are consistent with both the TEA results as well as the cross-corpora comparison in table 4.[22]

To focus on the evolution of *weird* in these data, figure 7 presents another Google Ngram search, this time with only the frequency of *weird* plotted for American English and British English. It reveals two notable accelerations in the frequency of *weird*, one in the late nineteenth century with a peak in

FIGURE 5
Frequency of Adjectives of STRANGENESS in American English
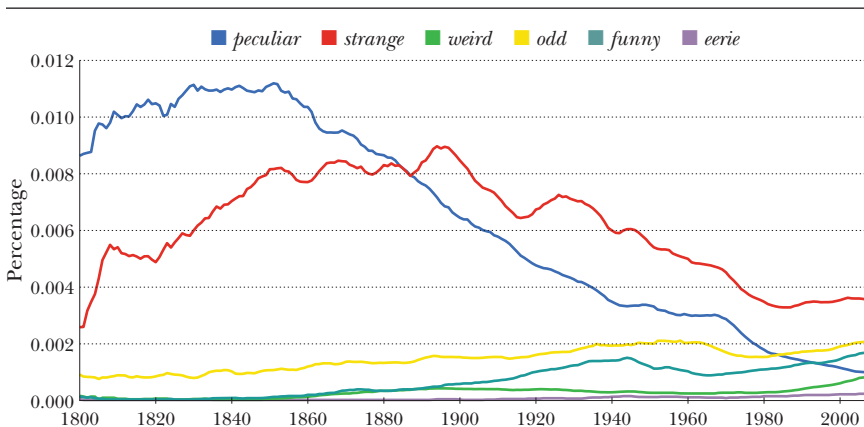(Google Ngrams, July 12, 2011)

FIGURE 6
Frequency of Adjectives of STRANGENESS in British English
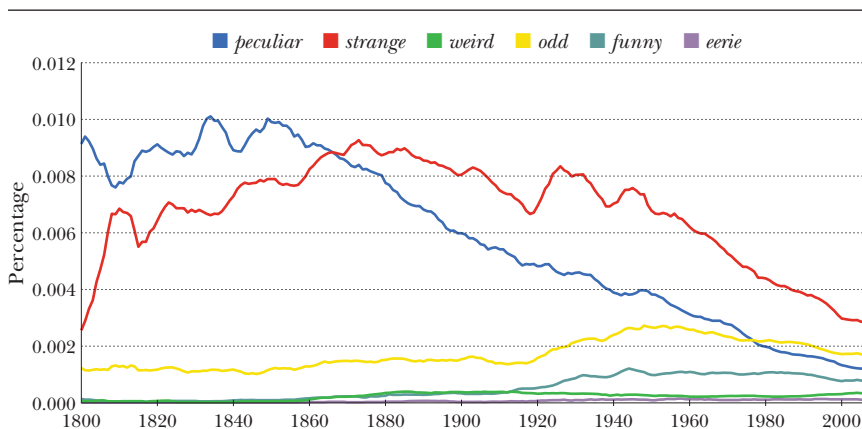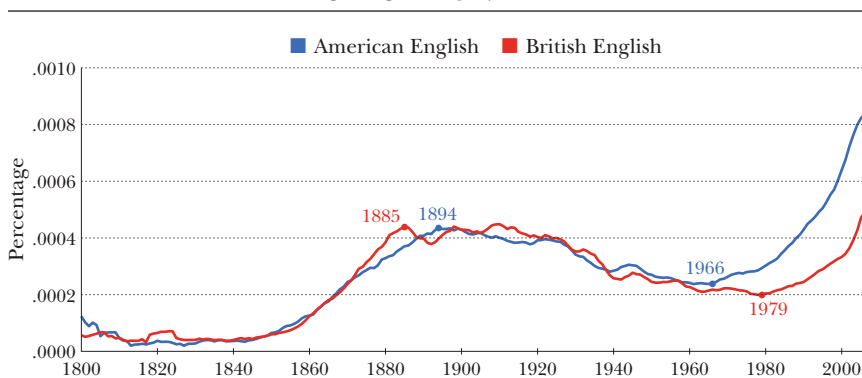(Google Ngrams, July 12, 2011)

FIGURE 7
Frequency of *weird* in American and British English
(Google Ngrams, July 12, 2011)

1885 in Great Britain and just a bit later in the United States, and a second upswing at the end of the twentieth century beginning with American English in the mid-1960s and British English in the late 1970s.

The main goal of these comparisons is to demonstrate that the trends in Toronto are not local, but are part of a widely diffused and wide-sweeping tide of change present across North American and British varieties of English. However, a further revelation is the particular points of acceleration in the use of *weird*. Although lexical change is not deeply embedded in the linguistic system, it evidently happens at a very particular times and places.

DISCUSSION

Using computational tools as a starting point for the investigation of poten-
tial language phenomena of interest in a large community-based corpus of
vernacular speech data in North America (Toronto, Canada), we discovered
that the adjective *weird* was highly implicated in linguistic change. To study
this feature, we needed to establish a defensible methodological plan. Fol-
lowing earlier research on semantic and lexical change, we used the semantic
field as our point of reference and included in our study all synonyms that
unambiguously referred to the meaning 'strange'. All the results confirm
that use of these adjectives is undergoing dramatic lexical change—*weird*
is becoming the dominant form. We could not substantiate conditioning
effects from any broad social categories such as sex, job type, and education.
Indeed, the use of *weird* increased in parallel among both males and females
beginning in the 50–59 year old age group in (figures 1 and 2). Thereafter, it
increases in use step-wise across generations. Several pieces of corroborating
evidence suggest that this was not the result of internal semantic develop-
ments. First, *weird* was not a new adjective for STRANGENESS in the late 1950s
and 1960s when the people in the TEA increased their use of this form,
but has been around since the fifteenth century, according to the *OED*,
and has been remarked upon as frequent in the early nineteenth century
(1817). We know that by the early twentieth century in Britain (1927) it was
subject to overt commentary, but considered transitory (Fowler 1927). Yet,
50–59-years-olds in Toronto appropriated this form rather abruptly (high
frequency), and thereafter it gains momentum and increases incrementally
by age to the point where young people hardly use any other form. The
age group who started this shift was born between 1944 and 1953. Given
the overt commentary against *weird*, it is conceivable that it was actually the
parents or grandparents of these individuals who started to use the word
weird frequently enough for it to become noted. If so, it must have taken
another generation for this variant to be begin incrementation and diffuse
further into the population. However, this transition was not the result of
typical processes of linguistic change, such as analogical extension, prag-
matic strengthening, and the like. Nor was it the result of internal linguistic
conditioning. When we examined plausible internal factors influencing the
choice of *weird*, we found little connection to a mechanistic process, such as
extension from one type of adjective function to another. The proportion
of attributive versus predicate uses of *weird* was stable across the population.
Moreover, the incoming adjective patterned in synch with a concomitant
changeover in the use of intensifying adverbs. Therefore, we conclude that
the changing inventory of adjectives is the result of lexical replacement rather

than any underlying grammatical development; in essence it was, and is, just what Fowler decreed, a word "in vogue."

WHY *WEIRD*?

What would have caused the adjective *weird* to become the predominant form in the semantic field of STRANGENESS in the late nineteenth century and then to accelerate again in the late twentieth century? Some cursory sleuthing uncovered a series of suggestive correspondences. Interestingly, in the late nineteenth century, an entirely new genre of fiction developed called Weird Fiction, a subgenre of speculative fiction encompassing all things strange and macabre that blends the supernatural, mythical, and scientific. Many popular writers of the time used the term Weird Fiction to describe their work (Joshi 1990). The major authors of this genre span a range of American and British nationalities, including J.P. Lovecraft, Clark Ashton Smith (American), William Hope Hodgson, Arthur Machen, M.R. James (English) and Lord Dusany (Irish) making this movement a transatlantic phenomenon. These authors also often appeared in the pulp magazine *Weird Tales*, the first run of which was published in 1923–54. The early development of Weird Fiction occurs precisely when the word *weird* shows an upswing in the Google Ngrams search in figure 7. Moreover, when the same genre undergoes a revival in the 1980s, The New Weird, there is another upswing in use of *weird* visible in the figure. Given that the data source of Google Ngrams is books (i.e., fiction and other published materials), it is not surprising to discover these correspondences. However, the links between the word *weird* at the right time and in the right place seem particularly germane to the question of how this change was actuated. The next question then becomes, can it be linked to vernacular usage? Of course the use of the word *weird* and the rise of Weird Fiction and all its attendant uses of the adjective *weird* in the Google Ngrams searches does not necessarily explain the abrupt rise of this word in the Toronto speech community among the individuals born after 1944. However, there is another influential cultural trend that may have reinforced and supported the rise of *weird* as a popular word for this semantic field. Beginning in the 1950s, a long line of comic book series became popular with repeating titles such as *Weird Fantasy* (1950–53), *Weird Adventures* (1951), *Weird Horrors* (1951–53), and *Weird Chills* (1954), among many others. These early series were rekindled in the 1970s, also with titles such as *Weird War Stories* (1971–83), *Weird Western Tales* (1972–80), *Weird Mystery Tales* (1972–75), and the like. In fact, the shear number of adjectival uses of *weird* in comic book titles is astounding (e.g., Overstreet and Carter 2000,

773–75).[23] The popularity of "Weird Al" Yankovic, whose songs started getting radio play in 1980, and that of the 1985 film *Weird Science* may well have helped propel the adjective outside the small cult comic audience. Indeed, the convergence of comics, pulp magazine, and other cultural phenomena strengthen the appeal to these as sources of actuation. The individuals in the Toronto corpus would have been the same generations exposed to and possibly reading *Weird Fiction* and *Weird* comic books. Unfortunately, neither Jim Lear (examples 11d, 25c, and 28) nor any of the other individuals in the TEA was asked about their pass times or reading habits. So, it is only speculation as to what influence these may have had on their language use; nevertheless, the timing and data from the world of popular literature is noteworthy. Further exploration of such cultural and other social influences on the choice of these or other adjectives in spoken or written language is beyond the scope of the present investigation, though they offer tantalizing observations for future exploration and study.

CONCLUSION

Returning to the linguistic contributions of this study, this study of adjectives has unveiled a new arena for the study of language variation and change that offers fresh insights into linguistic developments and lexical choices. First, it appears that changes in the use of certain adjectives begin relatively abruptly, visible in both the TEA and in the Google Ngrams for *weird*. Second, the nature of this process is not linguistically mechanistic according to any documented process. Instead, while synonyms are resplendent within semantic fields, particularly the adjectives of STRANGENESS, people do not make copious use of them. Instead, semantic fields appear to be dominated by one form and then another over the long term. As figures 6 and 7 suggest, this apparently happens in waves of change across time: as one form rises, another takes its place, and the former recedes in frequency. Third, the selection process for which form dominates at any given point in time may not be entirely local, at least insofar as the contrast among Canada, the United States, and Great Britain are concerned. Instead, it appears that the choice operates unconsciously, in tandem across localities, driven by higher level cultural trends in the mass media. Such changes are not without precedent. A parallel phenomenon is the selection of children's names reported in Labov (2001), referencing research by Liebersen (2000), who demonstrated that individuals select their children's names thinking that it is their conscious personal choice, unaware of the larger social factors that determine these choices. Indeed, Labov suggests that:

> While most language forms are stable and customary; a few rapidly changing variables may be closely compared to fashions. Change and diffusion of fashions—in clothing, cosmetics—appears to be closer to linguistic change and diffusion than any other form of behavior. [Labov 2002]

If clothing and cosmetics can influence language change, why not comics?

Whether the adjectives meaning STRANGENESS are unique in this way or whether semantic fields are like this more generally remains an important question. Indeed, many of these results entice further exploration, both with respect to other adjectives, a wider range of stylistic repertoires and registers, and a more fine-grained social analysis. Given the host of semantic differences among the adjectives, we might predict that shifts within and across semantic fields will be highly variegated by social, cultural, and economic trends. Yet these too may be guided by larger forces driving linguistic change. It is also worth noting that the extensive study of adjectives in the psychological literature suggests that a psycho-socio approach to adjectives may be warranted, since their use is apparently a good indication of internal psychological states. Such influences can be tapped in many different ways; however, the type of sociolinguistic corpora we have investigated here may not be sufficient by itself. New mega corpora of language (e.g., Davies's [2008–] Corpus of Contemporary American English [COCA], with 45 million words) and the virtually endless new online computer-mediated forms of written language offer an unprecedented range of real-time, online language data and so open the opportunity to document a change in adjectives while it is happening. Employing the variety of computational techniques we have explored here alongside standard sociolinguistic and dialectological methods offers new possibilities for analysts, not only for analyzing the changing landscape of adjectives, but also the prospect of grasping the actuation of linguistic change.

NOTES

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1. The examples' sources are provided throughout in square brackets in the following order: corpus, speaker's pseudonym (e.g., Clara Felipe), age at the time of recording, and sex, and the date of collection. The following corpora provide examples:

     TEA = Toronto English Archive (Tagliamonte 2003–6)
     YRK = York English Corpus (Tagliamonte 1996–98)

2. We owe a number of observations about the lexical choices of tree planters to Kyle Fair (pers. comm., July 1, 2012).

3. This is an ideal topic for introducing people to variation in language and its relation to society.

4. Of course, at any given time there will be innumerable vogue-words, nouns, adverbs, and intensifiers.

5. Other adjectives of STRANGENESS were present, including *selcouth* (ca. 888), *selly* (OE), and *ferly* (ca. 1225), to name a few; however, all of these are moribund in contemporary varieties.

6. Another potential adjective of STRANGENESS in the Toronto community, *random*, was just surfacing at the time of data collection:

     I always have some sort of like WEIRD experience that happens– like some random Pride thing. [TEA, Shannon Ermak 19F, 2006]

   It was not frequent enough to substantiate for inclusion in the present study.

7. Another potential adjective of STRANGENESS is *queer* (ca. 1513); however, its contemporary connotations make it untenable as a member of the STRANGENESS set. Not surprisingly, there were no instances of this function in the TEA.

8. Some examples in (20) come from a corpus of written computer mediated communication, a subcorpus of the TEA. All the original spellings and writing conventions have been preserved.

9. The somewhat generalized meaning of *funny* may be part of the reason it is so frequent in the data, occurring 1,108 times in the TEA. Further study of this form to disentangle its function is warranted.

10. Interestingly, the collocations *that's weird* and *that's strange* occur frequently among the interviewers in the TEA, whereas the collocation *that's unusual* is found frequently in the British Corpora. Note the correspondence to the figures in table 4.

11. This methodological approach to the study of the adjectives of STRANGENESS is a preliminary step in a wider study of adjectival variation. We have begun with a single semantic field with the intention of adding others. The long-term goal is to understand the adjectival system of which this semantic subset is a part.

12. Given the paucity of tokens of the other adjectives, we do not consider them further here.

13. The confidence intervals were calculated using Wilson's score interval method. These predict that were this analysis repeated, we would be 95% certain that a new data point would fall in the range indicated by the interval bars (see for example Aarts, Close, and Wallis 2013).

14. Due to the infrequency of stand alone adjectives, these were collapsed with predicate adjectives. Because there was no distinction between attributive and "combined" adjectives, those coded "combined" were collapsed with attributive.

15. Fisher's exact test, two tailed at: http://graphpad.com/quickcalcs/contingency1/.

16. Another issue is the low token counts for certain age groups, such as those over the age of 60 ($n = 17$). Why this is the case is beyond the scope of the present investigation.

17. Newer statistical techniques, such as mixed effects models, could handle the effect of individual speakers; however, the data distribution issues here are straightforward enough to make further analysis superflous.

18. The word *queer* 'strange' is found in British corpora (e.g., 23 times in the Roots Corpus [Tagliamonte 2013], as in *And you know rather QUEER it was, the first bus*). We have only included it in the comparison adjectives of STRANGENESS found in the target data set for simplicity's sake.

19. Due to the abundance of different historical spellings in the Helsinki corpus we did our best to include all the orthographic forms listed in the *OED* (e.g., *weird* as *wyrde, werd, veird, weyard, weyward, weer'd, weïrd, weerd*; e.g., *strange* as *strange, straunge* 23, *strang* 46, *strawnge* 3 *strenge* 9; *odd* as *odd* 13, *odde* 4, *ode* 1, etc.). An exhaustive search of adjectives of STRANGENESS in these corpora is beyond the scope of this article. The historical trajectory of these adjectives warrants further investigation.

20. The Clara data are not trivial, representing 65,434 words of intimate conversation between Clara and her sister collected over a decade.

21. According to Google "American English" represents "Books predominantly in the English language that were published in the United States" and "British English" represents "Books predominantly in the English language that were published in Great Britain" (http://books.google.com/ngrams/info accessed Aug. 12, 2013).

22. The adjective *odd* presents a curious case. It appears frequently in the British data; however, Google Ngrams show that it is never really ascended. Note, however, that it increases over the twentieth century, at least in British English, which corroborates the corpus trends. One wonders why it is not more frequent in the Helsinki corpus. This is likely due to the register/genre difference between the spoken and written (Helsinki) data. In addition, there is also the general trend toward more colloquial language over the twentieth century that may account for these discrepancies (e.g., Hundt and Mair 1999).

23. Of course, another obvious way to extend this research would be to analyze the linguistic contents of the comic books themselves.

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