INTENSIVE AND QUOTATIVE ALL: SOMETHING OLD, SOMETHING NEW

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ABSTRACT: This article presents a synchronic and diachronic investigation of the lexeme all in its intensifier and quotative functions. We delimit the new from the old functions of the lexeme and present a variationist account of all's external and internal constraints in various syntactic environments. Our analysis is based on a variety of data sets, which include traditional sociolinguistic interviews as well as data culled from Internet searches and a new Google-based search tool. On the basis of these data sets, we show that intensifier all is not new but has expanded in syntactic environments. We further pinpoint the syntactic and semantic niches which all has appropriated for itself among California adolescents and compare its patterning with that of other intensifiers in our data and the data of other researchers. All's extension to quotative function, however, is new, apparently originating in California in the 1980s. Our investigation of its development spans across data sets from 15 years. Using variable rule analysis and other quantitative techniques, we examine the distribution of quotative all vis-à-vis its competitor variants (including be like, say, and go) and show that the constraints on quotative all have undergone a marked shift in recent years and that quotative all is in decline right now, after peaking in the 1990s.

The Lexeme *all* in its intensifier and quotative functions (as in 1a and 1b, respectively) occurs commonly in media representations of adolescents' speech:

- 1. a. My mom is all mad at me. [Jerry Scott and Jim Borgman, "Zits" (comic strip), King Features, Aug. 30, 2005]
 - b. The dog just—she was all "Bark! Bark!" [ibid, July 28, 2005]

In the only published article devoted to these uses of *all*, Waksler (2001, 128) describes both quotative *all* and intensifier *all* as "new constructions" in the speech of adolescents and young adults in San Francisco:

INTENSIFIER:

- 2. Do you feel all goofy? [Waksler 2001, 129]
- 3. I'm all sitting there lonely. [female, mid-20s, discussing a call from a guy; Waksler 2001, 130]

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QUOTATIVE:

- 4. He's all, [whining] "Tell me you like it." [female, ca. 17, about a boyfriend's reaction to a new sweater he'd purchased; Waksler 2001, 132]
- 5. And she was all "Were you in the church?" and I was all "yeah." [male, ca. 19, Waksler corpus]

However, with respect to intensifier *all*, Waksler appears to have been affected by what Arnold Zwicky (2005) has dubbed the "recency illusion," whereby people think that linguistic features they've only recently noticed are in fact new.¹ Our survey of historical sources reveals that intensifier *all* is actually rather old. As an intensifier with participles and adjectival heads, *all* has been in use since Old English. Consider (6)–(8), chosen from a larger data collection in Buchstaller and Traugott (2006).²

- Seo ealde cyrce wæs eall behangen mid criccum.
 'The old church was hung all around with crutches' [1000, Ælfric's Lives of Saints, ed. Walter W. Skeat, Early English Text Society 76 (London: Trübner, 1881), 468, l. 431 (DOE)]
- 7. Of him-self he wex al sad. [a1400 (a1325), *Cursor Mundi*, MS Cotton Vespasian A3, ed. R. Morris, Early English Text Society 57 (London: Trübner, 1874), 80, l. 1240 (*MED*)]
- 8. seo wurðfulle byrgen þæs ðe him eallum þuhte eall bifigende wæs. 'That worshipful tomb, as to-them all appeared, all rocking was' [990, Ælfric's Lives of Saints, ed. Walter W. Skeat, Early English Text Society 76 (London: Trübner, 1881), 448, ll. 123–24 (DOE)]

What is new about intensifier *all* is its extension to full (tensed) verbs, as in (9) and (10), also from Buchstaller and Traugott (2006).

- 9. I haven't seen Joy in *years* and now that she's visiting, she all walks in and looks like Gwen. [Felicia (20-year-old woman in Minn.), Vespertine (blog), http://www.alatariel.net/ruin/00000125.htm, Nov. 28, 2002]
- 10. Yeah I all screamed when we hit the skunk i never hit anything before... [http://www.ndnsports.com/forums/topic.asp?TOPIC_ID=768 (accessed Aug. 2005)]

Also, Waksler was right about the innovativeness of quotative *all*, which appears to have originated in California in the early 1980s. The quotative function of *all* was noted in Igoe et al. (1999), the *American Heritage Dictionary* (2000, 46), Rickford (2000, xxii), and Singler (2000), and more recently by Barbieri (2005). The earliest report of quotative *all* we have found is in the fall 1982 issue of the newsletter "Not Just Words," edited by Danny Alford.³ The new quotative was said to be "surfacing in children in many parts of California" (Alford 1982–83, 6). It was described as occurring in a two-part

sequence in which an initial quote introduced with *all* was followed by a quoted response from another speaker, introduced with *here*:⁴

11. S/he's all, [with hands on hips and falsetto voice] "Why don't you ever do what you're told!"

I'm here, [feigned nonchalance] "la-de-da-de-da." [Alford 1982-83, 6]

Hence, in spoken conversational present-day English, the lexeme *all*—apart from its quantifier function (as in *All the birds flew away*), which can be traced back to ProtoGermanic—functions as an adverbial intensifier, which is essentially old,⁵ and as a quotative, which has been attested since the 1980s. We will now present a synchronic, quantitative study of *all* in these two functions. For intensifier *all*, we follow Buchstaller and Traugott's (2006) call for a broad distributional analysis, taking into account structural and functional perspectives. We will provide frequency analyses of the co-occurrence of intensifier *all* with different syntactic heads (adjective, adverb, NP, and so on). We will then focus on the frequency of *all* relative to other intensifiers like *very* and *really*. We also offer comparative evidence on how adverbial *all* is distributed among various semantic adjective types.

For quotative *all* we considered five internal factor groups and three external ones, so for its analysis, we exploited the multivariate capabilities of VARBRUL, a statistical program that allows multivariate analysis of many independent factors that hold simultaneously (see Paolillo 2002; Pintzuk 1988; Rand and Sankoff 1990; Robinson, Lawrence, and Tagliamonte 2001; Tagliamonte 2006). The relative scarcity of quotative *all* in our most recent (2005) database compared to data collected in 1990 and 1994 raises the question of whether the variant has decreased in frequency. In order to test this hypothesis, we devised a two-pronged method that allows us to trace the trajectory of quotative *all* in recent diachrony. On the basis of this evidence, we conclude that the constraints on quotative *all* have undergone a marked shift and that quotative *all* is in decline right now, after peaking in the 1990s.⁶

THE DATA

Our analysis is based on four sets of data:

THE STANFORD TAPE-RECORDED CORPUS (STRC). This corpus, part of Stanford University's Changing *all* Project, includes sociolinguistic interviews with six Stanford University undergraduates, six students from Gunn High School in Palo Alto, California,⁷ and four people from San Francisco and southern

California in 2005 (ages 15–25). This accountable corpus was the basis of our primary statistical analyses, allowing us to understand how *all* patterns quantitatively in relation to the variants it competes with. Our tape-recorded corpus yielded 654 intensifiers, of which 43 were *all*, and 544 quotatives, including 23 tokens of *all* and 375 tokens of *like*.

THE WIMMER/FOUGHT TAPE-RECORDED CORPUS (WFTRC). This corpus consists of tape recordings of native Californian adolescents and young adults made by Ann Wimmer for her Stanford University senior honors thesis in 1990 and by Carmen Fought in 1994. It comprises a total of eight speakers who produced 388 quotations, including 113 tokens of *all*. We will use this smaller earlier corpus as a comparative base for our larger 2005 corpus, primarily to see whether the constraint hierarchy has changed across time.

THE MULTISOURCE ALL CORPUS (MSAC). This all-only corpus, also part of Stanford University's Changing all Project, includes overheard examples, examples from Waksler's corpus, and tokens extracted from online chat sites and Web pages via Google, television series such as Buffy the Vampire Slayer, and California films such as Clueless and Fast Times at Ridgemont High. This corpus, with over 597 contemporary all intensifiers and 253 quotative all tokens, is a rich source of examples. It also allows us to make some quantitative comparisons with the tape-recorded corpora. But since it does not allow us to see the full envelope of variation—the intensives like really and very and quotatives like say, like, and think that each of the all tokens might alternate with—it lacks the ACCOUNTABILITY (Labov 1972, 72) of the tape-recorded corpora.

THE GOOGLE NEWSGROUPS CORPUS. In order to get a sense of the relative frequency of quotative *all* over the past two decades, we searched year by year a massive archive of Internet newsgroup postings spanning 1981–2005 that Google makes available on its Web site (http://groups.google.com). When Google acquired its initial archive from Deja.com, it already contained over 500 million messages (hence many billions of words); and of course it is constantly growing. We say more later in this paper about how we searched this archive. This source yielded 354 examples of quotative *all*.

RESULTS: INTENSIFIER ALL

In line with the concept of the sociolinguistic variable as "alternate ways of saying 'the same' thing" (Labov 1972, 118), the first step in our analysis was to define our variable and identify what *all* competes with. The extension of

sociolinguistic inquiry "above and beyond" phonology (Sankoff 1980) led to a debate about which criterion—functional or semantic similarity—was most useful for the definition of the variable (Lavandera 1978; Romaine 1984; Cheshire 1987; Macaulay 2002a; Milroy and Gordon 2003). In line with much current research on discourse variables, we have chosen to follow Dines's (1980) functionally oriented definition for discourse variables, which assumes that all variants have the "same function in discourse." For intensifier *all*, our variable therefore includes every option speakers have at their disposition to reinforce or boost the property denoted by the head they modify. We will now delimit our variable in order to find out where *all* can occur and where it cannot (the so-called "don't count contexts"; see Blake 1997).

Semantically, degree modifiers can be differentiated with respect to the value on a scale which they assign to their heads. As table 1 demonstrates, degree modifiers can be boosters, where they amplify the property denoted by their head. They can also moderate the property, or they can diminish it. As adverbial *all* is a booster, we only included the subset of degree modifiers which are associated with high degree—adverbs such as *all*, *extremely*, *very*, and *totally*. We did not include adverbial modifiers that moderate or diminish the property (consider also Bäcklund 1973; Quirk et al. 1985).

Also, Paradis (1997, 2000) suggested that degree modifiers tend to pattern with one of two different types of heads, gradable properties, as exemplified in (12), and nongradable ones, as in (13):¹⁰

- 12. GRADABLE: You are very good at that. [Arzella Dirksen, CareerLab, http://www.careerlab.com/99ways.htm]
- 13. NONGRADABLE: For example, my clone would appear completely identical to me... [Leila Ghaznavi, http://serendip.brynmawr.edu/biology/b103/foo/web2/ghaznavi2.html, 2000]

As *all* patterns with both types of heads in our corpus (as in 14 and 15), and since the distinction is hard to make in practice, we included both categories in our variable.

- 14. GRADABLE: There's Leo, looking all cool in his sunglasses. [male, c. 21]
- 15. NONGRADABLE: She's all pregnant in this episode. [female, c. 22]

TABLE 1
Taxonomy of Types of Adverbial Modifiers Based on Paradis (2000, 2)

booster	very (tired)
moderator	quite (tired)
diminisher	a bit (tired)

We also excluded another syntactic context from our analysis, namely plural subject NPs. This is because most clauses with plural subjects + *all* are ambiguous between floated quantifier and adverbial constructions. Thus, (16) is ambiguous between a construction with a floated quantifier (a) and a reading where *all* functions as an intensifier (b). To avoid this ambiguity, we restricted our investigation to intensifiers with singular subjects.

- 16. The players were all sexy.
 - a. 'All the players were sexy' [Quant-float: Adj all = 'every'; modifies the subject]
 - b. 'The players were totally sexy' [Adv = 'completely'; modifies the adjectival head] 11

Hence, our variable "intensification" includes all adverbial strategies speakers have at their disposition to boost or reinforce the property denoted by their heads. To reduce the number of potentially floated-quantifier constructions in our data pool, we consider only constructions with singular subject NPs. Having delimited our variable in this way, we will now move on to the quantitative analysis of *all* in intensifying function.

As a first step, in order to see what *all* competes with, we investigate the full set of intensifying adverbs in the STRC. Table 2 shows the distribution of *all* and its competitor variants by following syntactic contexts. Table 2 shows that *all* occurs in a range of syntactic constructions. And just as other intensifiers have preferred collocational patterns—*really* with adverbs, finite verbs, PPs, and past participles;¹² *very* with adverbs, NPs, and PPs; *so* with PPs; *totally* and *fuckin*' with present participles—*all* specializes with some. In decreasing order of relative frequency per syntactic context, it is used for the intensification of present participles (as in 17), prepositional phrases (18), adjectives (19), and adverbs (20).

TABLE 2
Relative Frequency of Intensifiers per Following Syntactic Context in the Stanford Tape-Recorded Corpus

R	elative Freq	uency of all	Main Competitors (≥10%)
Adjective	36/488	(7.4%)	See table 3
Adverb	1/40	(2.5%)	really (42.5%), very (17.5%), so (17.5%)
Finite verb	0/73		really (72.6%), totally (20.5%)
NP	0/13		very (30.8%), such (23.1%), really (23.1%)
PP	4/18	(22.2%)	so (16.7%), completely, really, very, way (11.1% ea.)
Past part.	0/4		really (75.0%), totally (25.0%)
Present part	. 2/5	(40.0%)	totally (40.0%), fuckin' (20.0%)

- _V-ing: I'm watching it and I'm all laughin and whatever. [white female high school student]
- 18. _PP: I'm all in bed now. [white female, c. 19]
- 19. __Adj: And I got all spastic. [TV show Scrubs]
- 20. __Adv: He was all smugly eating a cookie. [Sarah Bunting (white female in Brooklyn), Tomato Nation (blog), http://www.tomatonation.com/gbcii2.shtml, June 11, 2004]

The fact that adverbial *all* occurs less frequently with some heads than with others might have led some researchers to claim that the infrequently occurring types are new (Waksler 2001) or only colloquial (Bäcklund 1973). For example, *all* does not occur in our tape recordings with finite verbs or NPs. However, the absence of the variant in these syntactically defined contexts from our tape-recorded corpus does not necessarily mean that these heads are not available for *all*-intensification. In fact, the MSAC contains a number of examples of *all* in these environments stemming from Google searches and overheard examples (see 21 and 22).

- 21. _V: She all walks in and looks like Gwen. [Felicia (20-year-old woman in Minn.), Vespertine (blog), http://www.alatariel.net/ruin/00000125.htm, Nov. 28, 2002]
- 22. _NP: She's all this big English woman. [Waksler 2001, 131] 13

We are now going to concentrate on the intensification of adjectival heads. This is because adverbial *all* is most frequent in this syntactic position in both corpora (84% of the 597 tokens in our MSAC corpus are adjectives) and also because it allows us to build on interesting recent work on the intensification of adjectives by Macaulay (2002b), Ito and Tagliamonte (2003), and Tagliamonte and Roberts (2005).

As an intensifier modifying adjectives, *all* is in competition with 31 other variants. We should note that we did not count *pretty* (which made up about 18% of the degree adverbs) because we felt that in most cases it was not reinforcing but rather fixed the property denoted by its head somewhere on the middle of the scale. Hence we take *She was pretty nice* with neutral intonation to mean 'somewhat nice' (hence, a moderator) rather than 'very nice' (a booster, see also Bäcklund 1973). Table 3 gives an overview of the most frequent intensifiers for adjectival heads in the 2005 STRC. The most frequent intensifiers in our tape-recorded corpus are *really*, *so*, and *very*. *All* has made inroads into the paradigm of intensifiers, showing up in fourth position in the system of our adolescent and young adult California speakers, before *totally*. Together, these variants make up 90.6% of the system. This is quite an interesting finding given the results of Tagliamonte and Roberts's

TABLE 3
Most Frequent Intensifiers in the Stanford Tape Recorded Corpus
Preceding Adjectival Heads

Rank	Intensifier Variants (>2%)	N	Relative Frequency	
1	really	255	52.3%	
2	so	92	18.9%	
3	very	46	9.4%	
4	all	36	7.4%	
5	totally	13	2.7%	
	Other ^a	46	9.4%	
	TOTAL	488		

a. Other low-frequency variants include *super*, *way*, *über*, *freakin*(*g*), *hella*, *insanely*, and so on.

(2005) longitudinal study of the television series *Friends* (see 23). Our findings generally agree with theirs, except that the rank orders of *really* and *so* are reversed, and *all* features in our listing, ranking fourth, just above *totally*.

23. Intensifier frequency in Tagliamonte and Roberts (2005, 286): so(44.1%) > really(24.6%) > very(14.2%) > pretty(6.1%) > totally(2.8%)

We will now look more closely at the distribution of intensifiers with different types of adjectival heads. For this analysis, we will use a modified taxonomy first discussed in Dixon (1982) and usefully employed by Ito and Tagliamonte (2003). Dixon proposes a number of semantic types of adjectives such as PHYSICAL PROPERTY (loud, empty), AGE (young, middle-aged), COLOR (red, bluish), SPEED (fast, slow), HUMAN PROPENSITY (upset, excited), VALUE (awesome, depressing), and DIMENSION (tall, big), which we exemplify in (24)–(29) below. We found it useful to supplement this group with an eighth type, OTHER, which included a range of adjectives such as different, mixed, standard, and random. The results of our cross-tabulation of the most frequent intensifiers by the semantic type of the adjectives they accompany are depicted in figure 1, which shows that intensifiers have varying ranges of application types. Really, the most frequent intensifier, has a wide distribution. It leads the field in most categories except "other" (see examples 24-29). So, the second most frequent option, occurs with all but one adjective type, dimension. On the other side of the spectrum, totally intensifies only three types of adjectives, namely human propensity, value, and other. All occupies the middle field. It is like very insofar as it occurs with four of the six adjective types or groups in figure 1. But the two variants occur with different adjectival categories. All is most favored (33-35%) of the time) with adjectives denoting physical property and those denoting age, color, and speed. It occurs about half as

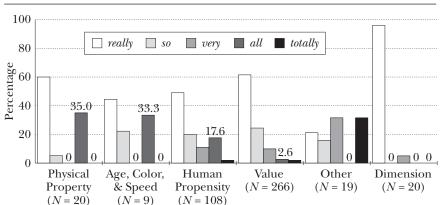


FIGURE 1
Intensifier Use with Different Adjective Types in the Stanford Tape-Recorded Corpus

often (17.6% of the time) with adjectives denoting human propensity, and at a low frequency (2.6%) with adjectives denoting value. Therefore, while *all* has a more restricted distribution (examples 30–33) than the ubiquitous *really* (24–29), its distribution is as broad as that of *very*, the prototypical booster, which is slightly higher in frequency.

- 24. If anything it was really comfy cause my seat protected me. [physical property]
- 25. I look really white. [color]
- 26. He started you know being really attached. [human propensity]
- 27. That's really annoying. [value]
- 28. The weather there is really exaggerated. [other]
- 29. Was she like really tall and played volleyball? [dimension]
- 30. S'weird how the skin is all shiny where the tape was. [physical property]
- 31. Oreos make your mouth all black. [color]¹⁴
- 32. Khalid is getting all strange. [value]
- 33. Come see pics from the whole year and get all sentimental. [human propensity]

In sum, intensifier *all* most frequently modifies present participles, PPs, and adjectives in the STRC. In the system of reinforcing intensifiers for adjectival heads of our young California speakers, *all* occurs in fourth place. It modifies a range of adjective types, as many as *very* does. But it has taken on an idiosyncratic distribution with these types—different from that of any other intensifier. Let us move on to a definitely new function of *all*, namely quotative *all*.

QUOTATIVE ALL

As we have noted above, *all*'s extension to quotative function is new, apparently originating in California in the 1980s. Quotative *all* is not in the Dictionary of Old English Corpus in Electronic Form (DOE) or *The Middle English Dictionary* (*MED*), nor in any of the modern dictionaries except the *American Heritage Dictionary*. The Switchboard Corpus I, collected in 1988–92 (http://www.ldc.upenn.edu/Catalog/LDC97S62.html), and the Santa Barbara Corpus of Spoken American English Part 1, collected in 1988 (http://www.ldc.upenn.edu/Catalog/LDC2000S85.html), each contain only one token of quotative *all*. The focus at NWAV meetings and in the sociolinguistic literature has been on quotative *like*, which was assumed to be the newest and hippest of the quotative newcomers. ¹⁵ Apart from Wimmer's (1990) Stanford senior honors thesis and Waksler's (2001) article, quotative *all*, however, is underresearched.

In order to study quotative *all* in a quantitative, accountable way, we adopted Buchstaller's (2006, 5) operational definition of quotatives as "all strategies used to introduce reported speech, sounds, gesture and thought by self or other." In its quotative function, *all* competes with *like* and *say* as in (34) but also with go (35), as well as with unframed quotes (36):¹⁶

- 34. So donnys is closing and I'm sayin bye to cutie's friend Jessie. Jessie says no, you're comin to _____'s house. (forgot her name. oops) I'm like no, gotta go home. And I wasn't invited anyways. She's all no, I'm inviting ya, and you're coming. So I go. Yeah, good plan. [Kim Berst (white female), GirlyDyke (blog), http://kimberst.blogspot.com/2003_12_07_kimberst_archive.html, Dec. 7, 2003]
- 35. I go "Oh my God" [white female high school student, 2005]
- 36. T: So like how do those popular girls that you described, how do they talk?
 - E: Surprisingly, they actually talk normal, besides, Ø "ohmyGod, I have a Abercrombie and Fitch backpack, ohmyGod. It's so cool?" [white male high school student, 2005]

As a first step we will now examine the corpus collected by Ann Wimmer in 1990 and by Carmen Fought in 1994 in California (WFTRC). These data will serve as a comparative base for our later corpus, recorded in Stanford in 2005 (STRC). Using comparative methods, we will then examine whether and how much the quotative system of young Californian speakers has changed within the last decade.

The most important constraint in the WFTRC is a social one that functions categorically: age. When Wimmer (1990) first looked at quotative *all*, she reported that "all of the high school students interviewed used it [*all*],

but none of the college age speakers did.... No one in the study over the age of 19 was heard to use this variable at any time" (10). In returning to the data sets collected by Wimmer and by Fought to conduct a variable rule analysis, we therefore included only high school students (aged 14–18) in our statistical analysis. They produced 246 quotations.

All is the most frequent single variant in the quotative system of the California adolescents recorded in 1990 and 1994, making up about 45.9% of the quotative system.¹⁷ Table 4 shows that all leads the field by far, with quotative like amounting to 17.5% and unframed quotes and say making up another 15.9% and 10.6%, respectively.

We will now move on to our variable rule analysis in order to find out which social and linguistic constraints favor *all* over other quotatives. We included a total of seven factor groups in our VARBRUL analysis: Tense/Modality, Subject Type, Quotative Harmony, Speech/Thought, Drama/Animation, Gender, and Ethnicity. The output of the multivariate regression indicates the probability of occurrence of *all* versus all other quotatives as factor weights ranging from .01 to .99. Factors above .5 favor the occurrence of *all*, values below .5 disfavor it, and values at or around .5 have little or no effect. It will become evident that, in several respects, *all* patterns quite differently from *like* or other quotatives. Table 5 displays the groups that turned out to be significant.

For the speakers recorded by Wimmer and Fought in 1990 and 1994, the primary constraint on quotative *all* is the factor Tense/Modality, which has a very strong effect (range .72). The present-tense forms strongly favor *all* (factor weight = .78), while the past-tense forms and even more so modals and quasi modals (factor weights .24 and .06, respectively) disfavor it (cf. also Barbieri 2005, 239).

The second strongest constraint is the factor Speech/Thought. Introducing a speaker's overt words slightly favors quotative *all* (factor weight

TABLE 4
Frequency of Quotative Variants for California High School Students in Winner's 1990 and Fought's 1994 Corpora

all	113	45.9%
like	43	17.5%
Unframed quotes	39	15.9%
say	26	10.6%
Other	19	7.7%
go	6	2.4%
TOTAL	246	

TABLE 5

VARBRUL Analysis of Factors Favoring Quotative all in Wimmer's 1990 and Fought's 1994 Corpora

(other variants include like, go, say, Ø, other)

Total N		245	
Input probability or corrected mean		.38	
Tense in Quotative			
Present		.78	
Past		.24	
Other (will future, habitual will/would)		.06	
	Range		.72
Quoting Speech/Thought			
Speech (external)		.56	
Ambiguous or indeterminate		.30	
Thought (internal)		.22	
	Range		.34
Birds of a Feather			
Perseverance (quot. all in 5 preceding li	ines)	.66	
Alternation (diff. quot. in 5 preceding li	ines)	.53	
No quotatives (in 5 preceding lines)		.36	
	Range		.30

.56, see examples 37a and 37b), while thought or ambiguous cases strongly disfavor *all* (factor weights .30 and .22, respectively, as in examples 38a and 38b). This patterning has been pointed out before by Singler (2000), contra Barbieri (2005, 245).

- 37. Introducing speech
 - a. He's all "Let me see your license; is that your car?" [Latino male]
 - b. She's all "What do your mean, gum?" [white female]
- 38. Introducing thoughts
 - a. All the family's all giving me hugs, I'm all "Uhhhhhh." [white male]
 - b. Our parents would always be all "Can't wait till those kids get to bed." [white male]

Quotative Harmony is the third important factor group (range .30).¹⁸ This constraint is meant to capture a harmonic (or disharmonic) tendency when quotatives occur in sequence. Are quotatives inclined to persevere (harmonize), with the same quotative tending to be used throughout such sequences? Or do they alternate (disharmonize), with one quotative tending to be followed by a different one? Our factor group tests for three sequences: perseverance; alternation; no quotative (after stretches where no quotative occurred). For this factor we have set the previous context, or "minimal

sequence" (Cameron 1998, 66) to five intonation units. ¹⁹ Previous nonoccurrence of quotation disfavors occurrence of *all* (factor weight .36). In contrast, perseverance favors the occurrence of *all* (factor weight .66), whereas alternation with another quotative essentially has no effect (factor weight .53). Hence, in the 1990/1994 data, *all* tends to cluster (see example 39).

39. and I was all "keep at it what are you gonna do, and I got witnesses right here, kick my ass" and he's all "You know what" he was just getting mad cause they he they wanted to beat me down you know. [Latino male]

To summarize, in 1990 and 1994, *all* is the most frequent variant in the quotative pool of our adolescent California speakers but does not occur in the speech of recorded college-age speakers. The significant linguistic constraints on quotative *all* are the tense of the quotative, the nature of the quote (Speech/Thought), where the occurrence of outwardly realized speech favored *all*, as well as the Quotative Harmony factor group, where *all* was disfavored in contexts which did not contain any previous quotation.

In order to trace the constraints on quotative *all* across time, we will now comparatively investigate the patterning of the quotative systems in the 2005 STRC. We investigated all seven factor groups considered for the 1990/1994 corpus, namely Tense/Modality, Subject Type, Quotative Harmony, Speech/Thought, Drama/Animation, Gender, and Ethnicity, but as table 6 shows, only two proved to be statistically significant. (We repeat the WFTRC results for comparison.)

Note first, from the input probabilities, that *all* is much less likely to occur overall in the 2005 corpus (.02) than in the 1990/1994 corpus (.38). Also, the constraint ranking has changed significantly during the 10 years. In 1990 and 1994, Tense marking turned out to be the most important constraint, with present forms favoring *all* and other tenses disfavoring it (range .72). By 2005, however, tense did not turn out to be a significant constraint for the occurrence of *all*. The second most important constraint in 1990 and 1994, Speech/Thought representation, still held in 2005 and with a similar range. Speakers from our earlier, as well as our later, corpus mainly used *all* to introduce a speaker's overt words (as in 40) and preferred other quotative options for the introduction of reported thought and attitudes (as in 41).

- 40. Introducing Speech
 I kinda teased him, I'm all "wow, you must reaaaaaally need attention back
 there...." [IM log, female, c. 18]
- 41. Introducing Thoughts
 I totally was like "Wait a minute." [white female]

TABLE 6

VARBRUL Analysis of Factors Favoring Quotative *all* in the 2005 STRC with the 1990/1994 WFTRC Results Included for Comparison

		•		
	1	2005	1990/19	994
Total N		544	245	
Input probability or corrected mean		.02	.38	
Tense in Quotative ^a				
Present		[]	.78	
Past		[]	.24	
Other (will future, habitual will/would)		[]	.06	
	Range	[]		.72
Quoting Speech/Thought				
Speech (external)		.63	.56	
Ambiguous or indeterminate		.29	.30	
Thought (internal)		.27	.22	
	Range	.36		.34
Birds of a Feather	_			
Perseverance (quot. all in 5 preceding lines)		.16	.66	
Alternation (diff. quot. in 5 preceding lines)		.70	.53	
No quotatives (in 5 preceding lines)		.68	.36	
	Range	.54		.30

a. Following VARBRUL convention, empty square brackets denote factors that were not statistically significant. They are included for the 2005 run merely to provide a comparison with the 1990/1994 run, in which they were significant. For its potential interest, however, we include these (nonsignificant) factor weights for the Tense factor group in the 2005 data set from the first step-down run, in which all the factor groups are included regardless of their significance: present nonmodal (.54), past nonmodal (.59), and other (.27).

In fact, as table 7 shows for the 2005 STRC, *all* is quite different from *like* with respect to this constraint. It rather seems to pattern like the older quotatives *say* and *go* in being favored for the introduction of actual speech. This preference for speech is also evident, though not quite as dramatically, in the multisource *all* corpus (see bottom row of table 7).

The final constraint, Quotative Harmony, comes out significant in both corpora, however with different rankings and different directions of constraints. In 1990 and 1994, the main disfavoring factor was situations in which no previous quote had occurred, whereas perseverance favored it most of all (factor weight .66). By 2005, this constraint has changed. Now, *all* is strongly dispreferred in perseverance contexts (factor weight .16), whereas alternation or no quotative favors its occurrence. To some extent, this is a

TABLE 7
Occurrence of Quotatives with Speech/Thought Representation in the 2005 Stanford Tape-Recorded Corpus and the Multisource *all* Corpus

	N	Speech	Don't Know	Thought
STRC		1		
all	23	87%	9%	4%
like	375	54%	32%	14%
go	6	83%	0%	17%
say	68	90%	7%	3%
No quotative	58	88%	9%	3%
Other	14	64%	0%	36%
MSAC				
all	253	79%	9%	12%

function of the relatively low frequency of quotative all (only 23 or 4.2% of the 544 quotatives in the VARBRUL run on the 2005 corpus were all). But even so, the all tokens could have appeared in clusters, as has been shown to be the case with go in other studies (Buchstaller 2004). ²⁰ In essence, our 2005 data replicate the stereotyped pattern that can be found in the media and popular culture (see examples 42-44), ²¹ where quotative alternation helps (along with the alternation in personal pronouns and the agreeing forms of be) to demarcate speaker turn, highlighting the shift between one interlocutor and another. These turn shifts can be rapid in narratives of personal experience, and the alternation is typically between the first-person narrator (I) and a third person (he, she).

- 42. And she's like, "Afraid so"
 And I'm all, "WHOA." [*The Simpsons*]
- 43. I'm like "Yeah"
 but she's all "No"
 and I'm all "Come on baby, let's go"
 and she's like "I don't think so" [from the 1996 album *Love is Dead* by The
 Mr T Experience]
- 44. So he goes "Like I'm sure," and I'm like... you know, "I don't think so"
 And then he's all, "Oh, right...." [http://www.public.asu.edu/~gelderen/314text/chap7.htm]

So the constraint ranking between 1990/1994 and 2005 has clearly shifted. Furthermore, the overall distribution of the quotative system in the 2005 data turned out to be fundamentally different. There is no one in our 2005 high school corpus like speaker RO in Wimmer's 1990 high school

corpus, who uses 15 quotative *all* tokens, or like her speaker BG, who uses 14 quotative *all* tokens and 53 tokens of *all here*. Nor does our recent corpus include anyone like CF in Carmen Fought's 1994 high school corpus, a young man who used 17 tokens of quotative *all* in a 45-minute interview. So whereas at least three speakers in Wimmer's 1990 and Fought's 1994 recordings used 14 or more tokens of quotative *all*, the highest number used by any ONE speaker in our 2005 tape-recorded corpus was 6. We will now investigate the development of the quotative system in real time.

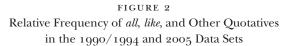
QUOTATIVE ALL: A CASE OF LANGUAGE CHANGE?

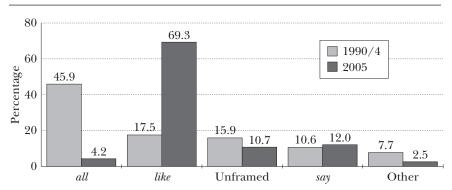
A distribution analysis of the quotative system across the two corpora reveals that the ubiquitous quotative *all* in the 1990/1994 corpus has given way to an overwhelming preponderance of quotative *like* by 2005. Table 8 shows that *like* clearly dominates the quotative system of our 2005 young California speakers, while *all* amounts to only 4.2% (cf table 4 above). Figure 2 comparatively depicts the composition of the quotative system of our 1990/1994 and 2005 corpora. The crossover pattern is evident: *all* and *like* alternate as the primary quotative, whereas the other variants stay comparatively stable.

Given the far higher rate of quotative *all* in Wimmer's and Fought's corpora collected over a decade earlier, its relative infrequency in the interviews we conducted with local high school and college students in 2005 was a surprise. Two possible explanations for this discrepancy leap to mind: (1) our method of data collection in some way discouraged the use of quotative *all*, or (2) the use of quotative *all* has decreased in recent years. Since our data were collected in essentially the same way as Wimmer's, the latter seems like the more promising hypothesis. Furthermore, while in 1990 and 1994 *all* was not used by anyone older than the high school speakers, when we split up our 2005 corpus by age cohort, the opposite pattern obtains: 7.7%

TABLE 8
Frequency of Quotative Variants in 2005 for California High School and College Students

like	375	69.3%
say	65	12.0%
Unframed quotes	58	10.7%
all	23	4.3%
Other	14	2.6%
go	6	1.1%
TOTAL	541	





of our college speakers' and only 3.3% of the high school students' quotatives were *all*. We therefore hypothesize that after a brisk rise in the 1990s, the overall use of quotative *all* is in decline.

To test the hypothesis that the frequency of *all* has indeed dwindled in recent years, we took advantage of the fact that Google makes available a large archive of Internet newsgroups, going back to 1981.²² We searched this archive for examples fitting the patterns in figure 3. These patterns were chosen because they preclude the possibility that *all* is modified by a relative clause of the form like *She's all I've seen* or *I'm all that you need*.

Most of the resulting hits were newsgroup posts containing quotative *all*. After excluding hits that did not contain quotative *all*, as well as a few that

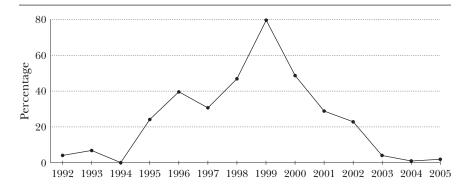
FIGURE 3
Pattern Match for the Google Newsgroup Search



were discussions of quotative all (using invented examples), and doubles, we were left with 354 examples, dating from 1992 to September of 2005, when the search was conducted. The raw numbers are misleading, however, since the size of the newsgroup archive changed considerably over this period. Hence we needed to calibrate for size differences in the newsgroup archives for different years. Google does not make available the number of words of each year's archive, but searching for an assortment of very common words provides a consistent measure of the size of each year's archive in number of postings. The words we looked for were word, other, make, time, look, write, see, number, way, people, first, the, and is. We recorded the number of hits for each of these words in the newsgroup archive for each year from 1992 through 2005. Finally we divided the number of quotative all examples per year by the respective "frequent word" hit total to get a normalized frequency of occurrence for all for each year. 23 We plotted the resulting fraction as a measure per 100,000 posts. Figure 4 is based on this measure and shows the rate of occurrence of quotative all in the Google newsgroup archive.

Figure 4 shows that the decline over the past five years is quite dramatic, providing direct support for the hypothesis that the use of quotative *all* has declined. Why does the peak of the newsgroup usage occur so late? One answer is that innovations in speech may take some time to find their way into written form. Another potential answer is changes in the use of newsgroups during the 1990s. In the early years, newsgroups were primarily the province of expert computer users, and much of their content consisted of information exchanges about computers, which might not invite quotation.

FIGURE 4
Frequency of Quotative all Over Time, Normalized for Number of Posts per Year over a Composite of Very Frequent Words
(word, other, make, time, look, write, see, number, way, people, first, the, and is)



Later, newsgroups also became a forum for discussions of popular culture by a much wider group of users. ²⁴

The quantitative evidence from figure 4 can thus be taken as support for the qualitative comment of one 21-year-old former Gunn High school student, that he and his friends no longer use quotative *all* because it is passé.

As table 8 shows, *like* has clearly established itself as the default form among the quotative introducers. And interestingly, of the 23 *all* tokens in our recent corpus, 15 were *all like*, as in:

- 45. W went up to S and he was all like, umm," S, I need to wear socks on my ears for uh, for my prank." [white female college student]
- 46. And she's all like, "Well you HAVE to. Are you allergic to them?" And I'm like, "No. They just make me nauseous." [white female high school student]

It is furthermore remarkable that the only eight tokens of quotative *all* by itself in our 2005 tape recordings come from college students. All of the high school students used *all like*. We decided to count these as tokens of quotative *all*, treating *like* as an approximative or second quotative. But these *all like* tokens may represent a reanalysis. The *like* element in these collocations may have been reinterpreted as the primary quotative, with the *all* in turn shifting from its new quotative to its older intensifier function, reinforcing *like*. Investigating this collocation pattern across our recordings, we notice that there are no *all like* tokens whatsoever in Wimmer's (1990) corpus and that by the mid-1990s, in Fought's corpus, one token of *all like* is found. The scale of the shift from *all* to *all like* is therefore quite dramatic: from 0% in 1990 to 0.8% in the 1990/1994 recordings (1 out of 113 tokens) to 65% in 2005 (15 out of 23 *all* tokens). By our 2005 corpus, *all like* has become the primary sequence in which *all* is used as a quotative, and the only one used by the younger speakers.

CONCLUSION

In this article we have discussed the sociolinguistic reality of the lexeme *all*, which shows up in speech and popular media, especially in California. A diachronic analysis of its functions and structural properties has revealed that intensifier *all* is very old and that by present-day English it can occur with a broad range of heads (finite verbs, NPs, PPs, adjectives...). In quotative function, however, *all* is relatively new, first mentioned as being used by California adolescents in 1982. Applying variationist sociolinguistic methodology to the two variables *all* is participating in—intensification and quotation—we have been able to show that the variability among the competitor variants is

systematically constrained and can be described in detail. By 2005, intensifier *all* has wormed itself into fourth place in overall frequency—behind *really*, *so*, and *very*—and is favored by adjective types involving physical property or age, color, and speed.

With respect to quotation, we found that in 1990 and 1994 *all* was the predominant variant among the younger high school students but was categorically constrained by age, being not used at all among the college-age speakers. Among the speakers who used *all*, it mainly introduced reported speech and occurred with present-tense verbs and in contexts of reported speech. However, by 2005, *all* had fallen back to below 10% among the quotative options, and the younger cohort used it even less than the college-age speakers. Furthermore, *all* shows an important shift in constraints, both in terms of ranking and in terms of the direction of the constraints. Hence, the quotative system of California adolescents and young adults has seen qualitative as well as quantitative changes over the past 15 years. The results we have presented here suggest a change, not in overall composition but in constraints and weighting. The quotative system is unstable and subject to change.

The continued dominance of quotative *like* and the rise and fall of quotative *all* and *(all) here* in the quotative system represent a classic case of retraction (Haspelmath 2004), where newcomer variants are picked up to a certain extent by the community but then rejected in favor of a more dominant variant, in this case *like*. The curve of *all* therefore parallels the fate of *go*, which has been rising and falling since at least the 1980s (Buchstaller 2006). In the rapidity of its flux, *all* is like many kinds of slang, and the fact that it is a lexical item (as opposed to an incoming pronunciation or syntactic variant) perhaps adds to the speed with which it can be adopted (and discarded). At the same time, it is a grammatical item, entering into competition with a range of paradigmatic alternatives, which are shifted and reshifted in the process.

Importantly, in this area of rampant variability, we find some striking examples of idiolectal variation—like BG in Wimmer's 1990 data set, who used *all here* repeatedly when none of his high school peers did. Nevertheless, it is the norm-enforcing character of the social group that comes through more clearly in our data—the fact that *all* has uniformly morphed into *all like* at the high school level.

Finally, Ito and Tagliamonte (2003, 258; citing Bolinger 1972, 18) have observed that intensifiers are "a picture of fevered invention and competition that would be hard to come by elsewhere, for in their nature they are unsettled." However, as Buchstaller and Traugott (2006) have pointed out, degree modifiers are not unique in this respect. For instance, there have

been a number of recent newcomers to the system of quotative introducers: I'm sitting here + QUOTE (Stein 1990), and done that + QUOTE (Macaulay n.d.), in addition to go/like + QUOTE.²⁵ The recurrent innovations lead to a steady reshifting of frequencies and constraints, with the result that the classic quotative say is rarely used by our young California speakers (just 12% in our 2005 tape-recorded corpus), suffering much the same fate as the classic intensifier very (just 9% in our 2005 tape-recorded corpus). Other, newer quotatives, especially like and other intensifiers such as really, so, and totally, have taken over the functional load in this area of the grammar, and perhaps other alternatives are popping up as we write.

NOTES

The Stanford all Project was started by John R. Rickford in the spring of 2004 as a collective enterprise combining the expertise of faculty and students from various subfields in the Department of Linguistics at Stanford University. Its principal personnel include, apart from the authors: Elizabeth Traugott (faculty), Zoe Bogart, Tracy Conner, and Rowyn McDonald (undergraduates), and Laura Whitton (graduate student). Other faculty and students have also contributed, for example, by making field recordings (esp. Crissy Brown, Kristle McCracken, Francesca Smith, Tim Schechmeister, and Ryan Mecredi) or participating in project meetings and discussions (David Beaver, Jason Brenier, Kathryn Campbell-Kibler, Eve Clark, Bruno Estigarribia, Madeleine Amelia Priya Douglas, Lauren Hall-Lew, Mary Rose, Ivan Sag, Rebecca Starr, and Laura Staum, among others). Kelly Drinkwater, a student at Menlo High School, Atherton, helped with transcription and data analysis in summer 2005, and Penny Eckert contributed some all tokens and helped with one of our VARBRUL runs. We are grateful to all of these contributors, to Rachel Waksler (San Francisco State Univ.) for sharing her entire all corpus with us, to Carmen Fought (Pitzer College) and Ann Wimmer (UC Davis) for allowing us access to recordings they made in 1994 and 1989-90 with California teenagers who used quotative all, and to the two anonymous reviewers for American Speech. Our research has benefited especially from Wimmer's (1990) Stanford senior honors thesis on quotative all and from Buchstaller's research experience with like and other quotatives (see Buchstaller 2001, 2004). Finally, we gratefully acknowledge that our project was funded by grants from the Stanford Humanities Lab and the Vice Provost for Undergraduate Education at Stanford.

- Buchstaller and Traugott (2006, 365) hypothesize "that the advent of newcomer Quotative all might have increased the saliency of Adverb all and triggered a perceptual generalization whereby some people have overextended the process that underlies Quotative all (a change in progress) to Adverb all."
- 2. Intensifier *all* with PPs goes back at least to the eleventh century, with NPs to the seventeenth century (a–d):

- a. Se king ... læi þære eall ofer Pentecoste wuce 'the king ... lay there all/entirely through Pentecost week' [1123, *The Anglo-Saxon Chronicle: A Collaborative Edition*, vol. 7, *MS E*, ed. Susan Irvine (Cambridge: Boydell and Brewer, 2004), 124]
- and lege þone stan on uppan þam stacan, þæt he beo eall under eorðan, butan þam gewritenan
 'and put the stone on top of the stake so that it is wholly under the earth but for the inscription' [11th c., "Þis Is Sancte Columcille Circul," MS Cotton Vitellius E18, in *Anglo-Saxon Magic*, G. Storms (The Hague: Hijhoff, 1948), 399]
- c. Sir, I am all Obedience [Bowing and sighing; [sic] [1682, A. Behn, The City Heiress; or, Sir Timothy Treat-all (London: Brown, Benskin, and Rhodes), 10]
- d. Remarked to him the great Change in the Temper of her Daughter, 'who from being,' she said, 'one of the liveliest, merriest Girls in the World, was, on a sudden, become all Gloom and Melancholy.' [1749, Henry Fielding, *The History of Tom Jones: A Foundling* (London: Millar), 5: 150–51]
- 3. We are grateful to Jesse Sheidlower, editor-at-large of the *Oxford English Dictionary*, for bringing this attestation to our attention.
- 4. We found no subsequent occurrences of quotative *here* by itself, except for one occurrence in the data for Wimmer's (1990) Stanford BA thesis on *all*:
 - e. My dad always does this. We tell him, you know, "Stop, Dad." And he doesn't. He's here, "No, no, I can handle it." [BG, Wimmer 1990 dataset]

Interestingly enough, 53 of the 67 quotative alls (79%) produced by this speaker occurred as all here, as in:

- f. I'm all here "Mom, could you get out of bed?" [BG, in Wimmer 1990, 56]
- 5. A distinction has to be made here between type and token frequency. While *all* in intensifying function with a variety of heads has been attested since the earliest records of English, there are strong indications that it has actually increased in frequency in recent years. We are pursuing this hypothesis in further research.
- This claim is based on a trend that we found in our data, which were collected in California. However, Google searches on the Internet (see below) also corroborate this trend on a larger scale.
- 7. The cooperation of principal Noreen Likins and the staff and students at Gunn High School, especially teacher Tarn Wilson, is gratefully acknowledged.
- 8. Work is under way at Google to provide tools that will allow searching of the newsgroups archive in ways more useful for linguistic research. We were able to draw on this work (for which we are grateful to Thorsten Brants, David Hall, and Google, Inc.) to advance our understanding of the development of all, and

- reported on this in our paper at the 35th annual conference on New Ways of Analyzing Variation (NWAV 35) at Ohio State University, Nov. 9–12, 2006.
- 9. The term "booster" is used by Quirk et al. (1985), Altenberg (1991), and Paradis (2000), among others. Boosters have also been called "amplifiers" (Quirk et al. 1985) and "reinforcers" (Paradis 2000).
- 10. Buchstaller and Traugott (2006), Kennedy and McNally (2005), and Paradis (2001) refer to "bounded" versus "nonbounded" properties.
- 11. It has to be pointed out that the possibility of ambiguity also holds with mass nouns as well as singular subject NPs that can be conceptualized as a conglomeration of subentities (see Bobaljik 1995 and Gouro 2000).
 - g. The food is all moldy.
 - h. The pear is all moldy.
- 12. The "past participles" in table 2 are defined in the narrow sense (complements to auxiliary *have/s*, as in *Bob Marley has totally taken over the camera*). No examples of intensifier *all* + V-*ed/*V-*en* occur with these predicates. A number of examples of *all* with V-*ed/*V-*en* do occur in our tape-recorded corpus, however, as adjectival or verbal passives (Wasow 1977), as in *My hand was all wrapped in gauze*.
- 13. A number of our examples with NP do seem to be adjectival in character, as one of our reviewers noted in relation to the following example in our corpus: "And then you went all Tyson on these demons?" As the reviewer comments, and we agree, "this does not involve the actual proper name as such, i.e., a referential NP, but a property derived from the boxer."
- 14. Here *all* seems to convey both intensification and completeness, qualities which sometimes overlap, as noted by Gouro (2000), who considered this cross-linguistically, including *all*.
- 15. After Butters first pointed out the newcomer quotative in the United States in his 1982 note, a flurry of articles on *like* ensued and since then most NWAV conferences have featured at least one paper addressing it in some way (Blyth, Recktenwald, and Wang 1988; Ferrara and Bell 1990; Dailey-O'Cain 1996; Dougherty and Strassel 1998; Igoe et al. 1999; Sanchez and Charity 1999; Fuller 2000; Singler 2000; Buchstaller 2001, 2003; Bakht-Rofheart 2002; Cukor-Avila 2002; Singler and Woods 2002; Barbieri 2003; Tagliamonte and D'Arcy 2003, 2004; D'Arcy 2004). A number of publications have also focused on the cross-variety comparison of the newcomer with respect to intra- and extralinguistic factors in Canadian English (Tagliamonte and Hudson 1999, Dion and Poplack 2005), southern British English (Tagliamonte and Hudson 1999; Buchstaller 2002, 2004), Scottish English (Macaulay 2001), and Australian English (Winter 2002).
- 16. There are also other variants that occur with much lower frequencies, such as *think*, *ask*, *yell*, or *be just*, as in "I'm just 'That makes more sense than that one so it must be that one'" [female, ca. 18].
- 17. We tested whether the high overall *all* frequency is due to outliers. When we excluded the heaviest *all* user, BG, who produced 67 tokens of quotative *all*, the relative frequency of *all* still amounted to 35%.

- 18. The term "quotative harmony" (on analogy with the well-established notion of "vowel harmony") was suggested by one of the anonymous reviewers. A harmonic effect of this sort is also known in the literature as a "birds of a feather effect," based on the colloquial saying "birds of a feather flock together." The term "birds of a feather" was first used by Scherre and Naro (1991, 1992), who discuss a specific form of priming with respect to the presence versus absence of plural -s in Brazilian Portuguese NPs and show that marking leads to more marking and no marking leads to lack of marking. Applied to the field of quotatives, Cameron (1998, 66) has shown for his Puerto Rican Spanish data that there is also a quotative harmony or "birds of a feather effect" in the sense that quotative frames that contain verbs of direct report trigger more marking with verbs of direct report.
- 19. Obviously, the notion of previous context or minimal sequence is problematic. Other studies have defined it with respect to a certain number of turns or information units. For example, Scherre and Naro (1991, 24) operationalize the context to 10 clauses, while Cameron (1998) gives a context of only two preceding clauses. Buchstaller (2004) uses five intonation units, and we will operationalize this minimal sequence here.
- 20. Buchstaller (2004, 71) has shown that *go* has a stronger tendency to cluster than *like* (11% frequency for the sequence *go-go-go* versus 3% for the corresponding *like* sequence).
- 21. While it is difficult to determine the geographic background of every scriptwriter, songwriter, or cartoonist whose examples of *all* and other quotatives we have used, it is striking that several of them come from studios or groups located in California.
- 22. It is impossible to retrieve information about the geographic background or current location of the people who post to newsgroups. Therefore, we can only speculate on the breadth of *all* use worldwide. The literature does, however, provide evidence of *all* use in locations outside of California, such as Texas and Arizona (Bayley and Santa Ana 2004), New York City (Singler 2000), as well as the United Kingdom (Buchstaller 2004).
- 23. While we did not have any information on the exact number or words of the newsgroups, we believe that normalizing by number of posts might in fact lessen the danger that one or two heavy users of quotative *all* are skewing the results. Furthermore, while the correlation between number of postings and number of words is likely to be quite consistent overall, we acknowledge that we cannot be certain.
- 24. It has been suggested that another reason for the plummeting frequencies of *all* in recent years is that use of newsgroups has declined among teenagers and young adults, given their preference for instant messaging and other alternatives. This is a possibility that we hope to investigate in future research through a systematic investigation of instant messages, blogs, and other forms of computer-mediated communication over the past five to ten years.

25. As Meillet (1915–16) pointed out long ago, there are many areas of renewal in language. Modality is one such area, as the development of quasi-modals attests, e.g., *fixing to, better* in addition to *ought to, be going to, got to,* and so on. See, for instance, Cort and Denison (2005) and Krug (2000).

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