ANYMORE, IT'S ON TWITTER: POSITIVE *ANYMORE,* AMERICAN REGIONAL DIALECTS, AND POLARITY LICENSING IN TWEETS

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ABSTRACT: Positive *anymore* is recognized as a feature of some dialects of English. However, because positive *anymore* occurs infrequently in conversational speech, studies have generally relied on grammaticality judgments. This article takes advantage of the massive corpus of speech-like text available on the social media platform Twitter to study productions of positive *anymore* in American English. More than 80,000 tweets containing *anymore* were collected over one month from areas around five Midland cities and three non-Midland cities. Tweets were coded for 20 types of negative polarity item (NPI) triggers and for the position of *anymore* within clauses. Results confirm that, in the context of American regional Englishes, positive *anymore* is a distinctive feature of the Midland. However, results also show intraregional differences within the Midland, with *anymore* being produced more frequently in Pittsburgh and less frequently in the western Midland cities of Kansas City and St. Louis. Midland cities also show increased incidence of *anymore* with several NPI triggers that should license NPIs in all dialects, suggesting that these ostensibly ordinary NPI triggers may affect or be affected by the use of *anymore* in positive polarity contexts. More generally, this research models ways that productions of positive *anymore* and other low-frequency linguistic variables might be studied through media like Twitter.

KEYWORDS: negative polarity item (NPI), Midland, social media

THE ADVERB *anymore* may occur at the end of a negative clause in all dialects of American English, as it does in the following tweet:

1. I figured it out. Internet age/texting/Twitter = punctuation doesn't matter anymore. People assumed "Love Trump's hate." [DanManX (@DanManX), Chicago, Nov. 23, 2016, https://twitter.com/DanManX/status/801447678 253170690]

In this standard usage, *anymore* is a negative polarity item (NPI) licensed or triggered by the negative particle *-n't.* Additionally, the tweets in examples 2–4 show that, for some speakers, *anymore* can occur in a broader range of clause types and clausal positions and in nonnegative polarity clauses:

2. Anymore, there's Murphy's Law, and then there's the #Bears. [Dave Kerner (@DaveKerner), Chicago, Nov. 21, 2016, https://twitter.com/DaveKerner/status/800824714218323968]

3. These pass interference penalties anymore has ruined the game of football. [Dale Stevens (@bighead65), Columbus, Ohio, Nov. 13, 2016, https://twitter.com/bighead65/status/797941665352691712]

4. Mizzou is a dumpster fire anymore. Domestic violence, weed arrests, losing to a school nobody's heard of? What in the actual fuck? [Jed L. Benson (@Jed_Benson27), Kansas City, Mo., Nov. 30, 2016, https://twitter.com/Jed_Benson27/status/803956778635497472]

These "positive" forms of *anymore* have been studied a number of times since first being noted in American Englishes in the 1930s and are interesting for researchers studying dialects, semantics, syntax, and other domains of linguistics. However, positive *anymore* poses several challenges to researchers. In particular, positive *anymore* occurs infrequently in conversational speech, making it difficult to study the feature quantitatively in speech corpora.

Researchers have filled the gap in production data, to an extent, by eliciting grammaticality judgments about *anymore* in surveys. However, as discussed below, studies regularly report that people fail to recognize positive *anymore* in their own speech and the speech around them, meaning that findings about positive *anymore* based on grammaticality judgments must always be interpreted cautiously.

The huge volume of speech-like text on Twitter offers a potential workaround to the problem of low-frequency grammatical variables like positive *anymore*. In this study, I attempt to harness Twitter to contribute new and needed production data to the legacy of positive-*anymore* literature. This approach will inform knowledge about the occurrence of *anymore* in relatively naturalistic language and the status of positive *anymore* as a dialect feature of American English. It will also model methods for studying *anymore*, specifically, and low-frequency grammatical variables, more generally.

BACKGROUND

ANYMORE, WHAT DOES IT MEAN? J. H. Wofford, of Atlanta, first commented on positive *anymore* in the Miscellany section of *American Speech*, having heard it in the vicinity of Bluefield, West Virginia (Malone 1931). In his editorial comments, Malone glossed it as 'now' and offered further that "in standard speech this use of the locution always goes with a negative," but for some speakers "this rather artificial rule has been chucked, and *any more* is used freely in affirmative as in negative sentences" (460). Carter (1932, 236)

posited that positive *anymore* additionally embodies "a greater degree of finality to the contrast and less likelihood of future change than *now*." Ferguson (1932, 234) similarly suggested that positive *anymore* could be substituted for 'now' when 'now' is not "sufficiently expressive of the speakers's attitude." Krumpelmann (1939, 156) argued that positive *anymore* did not necessarily imply a contrast with past events and was the first to gloss positive *anymore* as 'nowadays'. Parker (1975), Murray (1993), and Coye (2009) all adopt 'nowadays' as part of positive *anymore*'s meaning. Indeed, Parker attributed the spread of *anymore* into positive clauses to negative *anymore*'s semantic overlap with *nowadays*: *anymore* can standardly occur in negative clauses to express past, present, or future time, while *nowadays* can standardly occur in positive and negative clauses only to express present time. (Note, though, that Labov [1973, 73] had already pointed out that *nowadays* and positive *anymore* were not mutually substitutable, demanding a more complex semantic-syntactic account than the one Parker offered.)

The notions these linguists raised with regard to polarity (Malone), implication (Carter and Krumpelmann), and modality (Ferguson) have been independently examined in an expansive semantics literature on NPIs. Klima's (1964, 289–95) landmark study on negation in English identified the negative particle (*not*), negative affixes (*un-*, *in-*, *dis-*, etc.), and "inherent negatives" (*doubt, forbid, too*) among others as environments favorable to *any* (including a series of citation sentences with *any more*—but all quantificational instances, rather than the adverbs of time that are relevant to positive *anymore* [291–92]).

Subsequent work on NPIs in English and other languages (see, e.g., Wouden 1997, 60–61; Giannakidou 2011, 1661–63) has revealed the tremendous complexity of NPIs as a universal feature of language. While there is a general property that NPIs are licensed or triggered by falling in the c-command scope of negation (Giannakidou 2011, 1663), studies of specific NPIs, classes of NPIs, and NPIs cross-linguistically have routinely identified idiosyncratic and exceptional behaviors. Indeed, Bergen and Bergen (1993, 198–99) conclude that "there is no single principle that can explain negative polarity uniformly" (as cited in Wouden 1997, 79). Hoeksema (2010, 218) similarly posits:

I believe that 'negative polarity item' may well be a grab bag, similar to, say, 'adverb', that does not directly play a role in the grammar, but serves as a convenient term to refer to a loosely knit group of expressions with overlapping distributional properties.

Ladusaw (1996) summarizes four areas of research into NPIs (which I paraphrase roughly here): (1) How are NPIs licensed? (2) What are the properties of NPIs? (3) What are the structural, semantic, and other relationships between NPIs and their licensers? And, (4) are NPIs that violate

licensing requirements uninterpretable or simply pragmatically bad? Wouden (1997, 81–93) provides an overview of attempts to answer these questions from syntactic, pragmatic, and semantic perspectives. One particularly influential approach is Ladusaw's (1980) proposal that "α is a trigger for negative polarity items in its scope iff α is downward entailing" (summarized in Giannakidou 2011, 1668). Zwarts (1998) identified increasingly restrictive categories of downward entailment as antiadditive and antimorphic, which in turn allowed him to distinguish among "weak," "strong," and "superstrong" NPIs corresponding to a range of triggers that license them (summarized in Giannakidou 2011, 1669; see also the long summary in Wouden 1997, 113–30). In this context, Horn's (2013, 1) review of research on positive *anymore* categorizes negative *anymore* as a "medium-strength" NPI. Edmondson (1983) also proposed a hierarchy of affective contexts for NPIs that runs from negative to interrogative to conditional to comparative (summarized in Wouden 1997, 94–95).

Giannakidou (2011) included downward entailing contexts in a broader set of nonveridical contexts that licenses a "broad" class of NPIs. Nonveridical contexts also include modal, intensional, and generic contexts, disjunctions, questions, imperatives, and conditionals (1679). This broad class is opposed to a narrower class of NPIs that appear only in overtly negative contexts. Additionally, Giannakidou proposed a secondary operation of "rescuing" that allows some nonlicensed NPIs to be used via semantic-pragmatic reasoning. Rescuing specifically allows English *any* to be licensed in apparently veridical contexts like *only, rarely, barely,* and so on through a clash between veridical and nonveridical inferences that renders both inferences "assertorically inert" (Giannakidou 2011, 1687, uses Horn's 2002 term). Horn (2016), however, challenges that Giannakidou's concept of rescuing makes many incorrect predictions about NPI licensing, for instance, allowing *almost* to license NPIs while blocking *only* from licensing. Instead, he describes a role for calculating assertoric content of utterances in NPI licensing.

Horn (1970) was apparently first to examine positive *anymore* from the perspective of semantic research on NPIs, noting "the dialectal use of non-polarity *anymore*" that carries a negative presupposition—the sentence "Floyd always thinks he is right anymore" presupposes "Earlier, he didn't always think he was right" (Horn 1970, 320). Hindle and Sag (1975) followed a similar line, claiming that positive *anymore* asserts 'now' but presupposes a contrast with past events. Since the proposed assertion and presupposition for positive *anymore* is not noticably different from what negative *anymore* would assert and presuppose, Hindle and Sag suggest that positive and negative *anymore* are not distinct lexical entries, but rather a result of "various speakers differing simply on how picky they are about the receptiveness of an environment" for licensing *anymore* (92).

Their notion of a continuum is suggestive of Edmondson's (1983) hierarchy of affective contexts or Zwarts's (1998) weak, strong, and superstrong NPIs. Research into speaker intuitions about the grammaticality of *anymore* has certainly shown that some types of sentences and some constructions are more acceptable than others. Hindle and Sag (1975), for instance, found that respondents agreed in rejecting a small number of the "worst" positive-*anymore* sentences and accepting the best. However, respondents also showed little agreement in the relative acceptability of other instances of *anymore*. Youmans (1986, 73), too, identified differences in acceptability:

The highest ratings were given to a negative and to a *yes/no* question. Next highest were sentences with *anymore* embedded in verbal complements following adversatives, such as *reluctant*, or words with a negative prefix, such as *impossible*. […] Even Positive speakers would be likely to reject the preposed negative *anymore* in *Anymore, I never go to the movies*.

In the scope of the complex literature on NPIs generally and positive *anymore* specifically, and foreshadowing discussion of grammaticality judgments of positive *anymore* to follow, it is worth noting disagreements in linguistic research over what counts as positive *anymore* or what is acceptable under positive and negative *anymore* grammars. Horn (2013, 1–2) notes that two citations for positive *anymore* in the *Oxford English Dictionary* (*OED* 2000–) in fact occur in "garden-variety, downward-entailing, NPI-licensing environments" of *only* and the restrictor of *everything*. Labov (1973, 74) characterizes the sentence "It's hard to do that anymore" as "out of the question" for negative *anymore* dialects, but Youmans (1986, 73) intuits the sentence to be acceptable, including *hard to* among Klima's (1964) category of adversatives. At an even more nuanced level, Horn (1970, 325) accepts "It's hard to find a good man anymore" as standard negative *anymore*, but considers "Finding a good man is hard anymore" and "A good man is hard to find anymore" to be acceptable only in positive-*anymore* dialects. Horn (1970, 320) also disagrees with Youman's (1986, 73) finding that preposed *anymore* is unacceptable in a negative clause, claiming that positive-*anymore* speakers find the sentence "Anymore, they don't make 'em like that" "totally unobjectionable." Labov's (1973, 73) survey respondents laugh at the exchange, "When was the best beer brewed? Anymore." But Murray (1993, 182) reports informants using the identical structure in "[Do you eat red meat?] Anymore."

This brief survey of ideas about the meaning of positive *anymore*, as well as the semantics and syntax of NPIs more generally, shows positive *anymore* to be a rich site for research, with many findings yet to be discovered. A starting point is to recognize that a range of licensing conditions must be examined if positive *anymore* is to be understood and that innovations represented by

positive *anymore* need to account for syntactic, semantic, and pragmatic factors, and for the interactions among them.

POSITIVE *ANYMORE* IN AMERICAN SPEECH. Positive *anymore* was described anecdotally in *American Speech* frequently after Malone (1931). Authors and letter writers identified it in West Virginia (Malone 1931; Lyman 1936; Krumpelmann 1939); southwestern Pennsylvania (Maxfield 1931); southern Ontario and Michigan (Ferguson 1932); Illinois (Carter 1932; Nock 1959); Elmira, New York (Pound 1935); South Carolina (McCain 1939); Iowa and Maryland (Russell 1941, 18–19); Philadelphia (Tucker 1944, 39); Indiana (Gibbens 1944, 204; Krueger 1965); and, in Dunlap (1945, 15), every region of the United States and Canada except New York City, Long Island, New England, and Nova Scotia.

It is noteworthy that citations offered by these authors include positive *anymore* in clause-initial, -medial, and -final positions, suggesting that all of these constructions have long time depth. Eitner (1951, 311) noted that Wentworth's 1944 *American Dialect Dictionary* included 59 examples of positive *anymore*, including 5 clause-initial occurrences, 10 clause-medial, and 44 clause-final.

A lineage of subsequent surveys employed greater sophistication for mapping positive *anymore* but still generally concluded that the feature is widespread, especially in the traditional U.S. Midland. Wolfram and Christian (1976) documented it as part of the grammar of Appalachian speech. The *Dictionary of American Regional English* (*DARE* 1985, 73) plotted a concentration of positive *anymore* being judged as grammatically acceptable in Kentucky and Indiana, but with scattered usage throughout the Midwest, Pacific Northwest, New York, Texas, and Oklahoma (*DARE*'s map is reproduced in Horn 2013, 2; see also responses to question A26 of *DARE*'s original survey [1965–70], "People used to walk a lot, but everybody drives a car _____," with *anymore* accounting for 9.2% [http://dare .wisc.edu/survey-results/1965-1970/time/a26]). Youmans (1986) examined positive *anymore* in Missouri, and Shields (1997) in southeastern Pennsylvania. Murray (1993) showed a cline of acceptability judgments throughout the U.S. Midwest for 15 sample sentences with positive *anymore*. Coye (2009, 421) found that positive *anymore* was frequently acceptable in southern New Jersey, but unacceptable north of a line of demarcation between Trenton and Atlantic City. Strelluf and Cardwell (2019) identify race as a predictor of grammaticality judgments for positive *anymore* in Kansas City, associating judgments of "heard but don't use" with white informants and "never heard" with African Americans.

The TELSUR project surveyed respondents on the acceptability of three positive-*anymore* sentences, the result of which Labov, Ash, and Boberg (2006,

293–94) used to plot a positive-*anymore* isogloss around the Midland region in *The Atlas of North American English*'s (Labov, Ash, and Boberg 2016 [*ANAE*]), as well as the upper area of the South and a subsection of the West (see also Ash 2006 for a focused examination of the TELSUR data specifically in the context of the U.S. Midland). Murray and Simon (2006, 15) included positive *anymore* as one feature in a constellation of lexical, phonological, and morphosyntactic features that mark the Midland as a distinct dialect region. The Harvard Dialect Survey (Vaux and Golder 2003 [HDS]) plots acceptability judgments for four positive-*anymore* questions (maps 54–57; however, the distribution of mapped responses makes it difficult to conclude much more than that positive *anymore* is judged to be acceptable across much of the United States, but more frequently judged unacceptable. (See Maher 2011 for additional positive-*anymore* mapping.)

While the acceptability and presence of positive *anymore* are well established in some varieties of American English, explanations for its acceptability and presence in those varieties (but not in others) remain unsettled. Dunlap (1945) connected positive *anymore* to Ulster migrations. Eitner (1949, 314–15) likewise attributed positive *anymore* to Scotch-Irish settlement, rejecting H. L. Mencken's (1948) attribution to German immigrants and Tucker's (1944, 39) to Welsh immigrants. Eitner noted citations for positive *anymore* in *The English Dialect Dictionary* (1898, s.v. *any*) and *The Scottish National Dictionary* (1931, s.v. *any more*), with occurrences in Northern Ireland and Scotland (see also Crozier 1984, 318). The *OED* entry for positive *anymore* includes a quotation from *Women in Love* by D. H. Lawrence ("'Quite absurd,' he said. 'Suffering bores me, any more'" [1920, 167]), suggesting the English East Midlands as another possible source.

Much of the literature presupposes that positive *anymore* is spreading (e.g., Murray 1993, 185, concluded, "One cannot help wondering whether its current pattern of use will CONTINUE to spread" [emphasis mine]). But there is little data that the feature actually represents a change in progress, either inside or outside the areas where positive *anymore* is attested to. Youmans (1986, 74) noted, "[I]f this usage is becoming more common, as many commentators suggest, then it is probably because Midland speech in general is spreading rather than because of innovations introduced by younger speakers." Shields (1997, 219) also found "no differences in its use between age groups" in Pennsylvania. Across American regional dialects, the acceptability judgments mapped in HDS and *ANAE* certainly suggest a diachronic expansion of the positive-*anymore* region compared with the *DARE* map. However, a qualitative comparison of HDS and *ANAE* data against Dunlap's (1945) survey leads to a more general conclusion that positive *anymore* was geographically widely distributed in American English at the end of the twentieth century just as it was in the middle of the century.

ANYMORE JUDGMENTS. An interesting social feature of positive *anymore* is that people often seem not to notice it. Labov (1973, 66) wrote that positive *anymore* "is not a social marker or stereotype, and is not evaluated by most speakers." He cited as evidence a 1969 *Life* headline: "What It Takes to Be a Lady Author Anymore" (see also Labov 1972, 309). Youmans (1986, 71) noted that "even some speakers who have lived all their lives in positive *anymore* regions claim never to have heard this form," and described his surprise at noticing during his parents' 50th wedding anniversary that his father used preposed positive *anymore*.

On the other hand, Horn (2013, 8) also described a hateful response to the "extension of the meaning of *anymore*" from the *Harper Dictionary of Contemporary Usage* panel (Horn 2014, 340, also quotes Follett's 1998 *Modern American Usage* calling positive *anymore* "wrong"). Cox's (1932, 236) early account of positive *anymore* implies that the feature raised prescriptivist hackles: "Composition teachers tell me that occasionally it creeps into papers written by students." Positive *anymore* also seems to be salient as a feature of "Pittsburghese" (see http://www.pittsburghese.com/ for a popular account; Johnstone 2013). By and large, though, the story of positive *anymore* is that it passes unnoticed and unstigmatized—at least until the construction is presented for conscious evaluation, as in the cases cited by Horn (2013, 2014). Indeed, Labov (1973, 71) concluded, "*Anymore* is all about us, under the surface, but is not available for conscious judgments of grammaticality."

Because of the disconnect between positive-*anymore* usage and recognition, the *ANAE* map of grammaticality judgments to positive *anymore* is preceded by the disclaimer:

Considerable caution must be exercised in interpreting these data. Positive *anymore* shows a disparity between intuitions and actual use. Long-term studies of positive *anymore* in Philadelphia show that the great majority of speakers will use *anymore* in constructions like [the survey items], when enough spontaneous speech is recorded, but only about half will recognize this construction in response to direct questions. [Labov, Ash, and Boberg 2006, 292]

ANAE's disclaimer points to a major conundrum in positive-*anymore* research. Judgments about the grammaticality of positive *anymore* are unreliable. However, contrary to Labov's (1973, 71) description of positive *anymore* as "all about us," positive *anymore* actually occurs infrequently in natural speech. Indeed, Youmans (1986, 71) suggested that it was positive *anymore*'s low frequency that made it possible for the feature to "be heard for years without registering on a listener's consciousness."

As such, elicitation techniques—whether indirect like sociolinguistic interviews or direct like "rapid and anonymous surveys" (e.g., Labov 1972)

or the questionnaires of the Linguistic Atlas of the United States and Canada (e.g., Kurath 1931) and *DARE*—do not yield enough productions of positive *anymore* to study the feature. (Indeed, Menner [1933, 6] identified positive *anymore* as illustrative of syntactic features that could not be accurately mapped by the elicitation methods used in dialect surveys like the Kurath's linguistic atlas project.) Furthermore, because positive *anymore* could be added as an adjunct to almost any sentence, positive *anymore* cannot be quantified as a binomial variable that alters between application and nonapplication, which has been a standard approach for variationist studies of grammatical features (see Tagliamonte 2006).

Studies of positive *anymore* have therefore necessarily relied almost exclusively on either grammaticality judgments or anecdotal reports. A qualified exception is that Murray (1993) included some surreptitiously documented productions of positive *anymore* among the surveyed judgments he reports. But overwhelmingly, empirical knowledge of positive *anymore*'s distribution and occurrence in American English is drawn from overt judgments. And overt judgments of positive *anymore* are inherently unreliable.

METHOD

ANYMORE ON TWITTER. Twitter, with its massive pool of often speech-like text, offers a means to study low-frequency grammatical features like positive *anymore*. Sociolinguists have leveraged Twitter as a rich resource for studies of language variation and change. Squires (2016b) provides an overview of approaches and issues in Twitter-based research, and the chapters collected for Squires (2016a) provide several exemplary applications. Eisenstein (2017) demonstrates the usefulness of Twitter for mapping lexical variables associated with particular dialect regions (see also Eisenstein et al. 2012; Pavalanathan and Eisenstein 2015). Jones (2015) maps regional varieties of African American English based on lexical and spelling variants (see also Austen 2017). Doyle (2014) shows that Twitter can also be leveraged to study low-frequency grammatical features, as he used his tweet mapping script, SeeTweet, to plot 480 instances of *needs done* in tweets in the United States.

For the present study, I built a corpus of tweets using R (R Core Team 2017) and the package twitteR (Gentry 2015). The twitteR package interfaces with the standard-level, public set of APIs in the Twitter developer platform (e.g., Twitter 2017). Calls to Twitter's standard search return a nonexhaustive sample of tweets containing relevant search strings and published within seven days of running the search. The twitteR package makes these calls to search Twitter and pulls the outputs as text into R, where the tweets can be converted to a spreadsheet or other file for coding and analysis.

I extracted tweets containing the word *anymore* daily for a month, from November 8 to December 8, 2016. I limited my search to within 75-mile radii around five cities in *ANAE*'s Midland dialect region: Columbus, Ohio; Indianapolis, Indiana; Pittsburgh, Pennsylvania; Kansas City, Missouri; and St. Louis, Missouri. I also searched three cities representative of other *ANAE* dialect regions: Birmingham, Alabama (South); Chicago, Illinois (Inland North), and San Francisco, California (West). The Midland cities were selected to provide coverage across most of the east-west range of the Midland. The search radius was set at 75 miles to capture as much area as possible without overlap. The three non-Midland cities were selected not only for their dialect region assignment but also because of their varied distance from the Midland dialect region. Inland North Chicago, for example, is closer to Midland Indianapolis than Indianapolis is to Midland St. Louis. Birmingham is about twice as far from Indianapolis and St. Louis, north-south, as Chicago is, while San Francisco is around 1,500 miles west of Kansas City in a straight line. The search parameters were therefore intended to afford several geographic perspectives on *anymore* productions: distributions within the Midland, regional comparisons of Midland cities against non-Midland cities, and a straightforward geographical view (i.e., in case Chicago's proximity to the Midland correlated with a greater proportion of positive *anymore* than occurs in San Francisco).

The geocode parameter in Twitter's search interface returns not only results for users who include location metadata in tweets (i.e., geotags) but also results based on the Twitter users' locations entered in their profiles. User-provided locations are inexact since users may enter any place they wish and may not update their location if they move. Certainly, some tweets I collected for locations were not tweeted by people in those locations. For instance, several tweets pulled from Birmingham, Alabama, contain references that suggest the authors were actually in Birmingham, England.

Many tweets in my sample, however, contain local references that show authors very clearly to be within the cities I hoped to study. Thus, tweets identified in this study can only offer qualified insights into regional distributions of positive *anymore*, but they still offer insights. It was necessary to rely heavily on user-provided locations rather than geotags exclusively because the vast majority of tweets are not geotagged. Leetaru et al. (2013) report that only 1.1% of tweets are geotagged (Eisenstein 2017 similarly reports 1–2% of tweets being geotagged). In the corpus I built for this research, only 191 tweets (about 0.2% of the sample) are geotagged. Given the low frequency of positive *anymore*, these small numbers effectively preclude studying the feature through Twitter in the same way that it has been difficult to study it in speech.

A Twitter-based corpus is fraught in a number of other ways. Beyond being limited obviously to Twitter users—about 18% of internet users according to Duggan and Smith (2013, 5)—Twitter is used disproportionately by African Americans and 18–29-year-olds. Results reported from Twitter will therefore not be demographically representative of the speech communities they are drawn from, and differences in the social characteristics of Twitter users in a specific speech community might create the appearance of a regional difference that is actually a result of social factors. I did not extract any metadata on tweeters' social characteristics and make no attempt in this research to control for or examine any demographic characteristics besides location. Social categorization of Twitter data on positive *anymore* may be fruitfully examined in future research.

HOW CODING *ANYMORE* IS DONE. From the initial pool of data-mined tweets, I manually deleted tweets where *anymore* occurred in song titles or lyrics (popular songs during the collection period included "We Don't Talk Anymore," by Charlie Puth and Selena Gomez, and "Anymore," by Travis Tritt); quotations attributed to public figures (e.g., during collection, Scottie Nell Hughes said, "There's no such thing, unfortunately, anymore as facts"); and advertisements (the clickbait headline "7 Signs Your Boyfriend Is Just Not into You Anymore" was tweeted frequently). I also deleted repeated tweets (because an author was resending a tweet with different callouts or engaging in flaming or trolling). I deleted tweets where interpretation was not possible, often because a tweet with *anymore* appeared to be a continuation of previous message so there was insufficient text to evaluate polarity licensing or because content suggested that an author had likely accidentally omitted a negative particle, as in example 5:

> 5. Bro are you serious right now bc we might get to be friends anymore [Striped Pup (@StripedPup), Birmingham, Nov. 22, 2016, https://twitter.com/Striped Pup/status/801289410205585408]

Finally, it was necessary to distinguish *anymore* being used to express a quantity from adverbial *anymore*. The importance of this is illustrated by a example 6:

> 6. I literally couldn't love you anymore @EzekielElliott [Whitney (@whitneyns_), Columbus, Nov. 24, 2016, https://twitter.com/whitneyns_/status/8019516 80736751616]

In example 6, Ezekiel Elliot is unloved if *anymore* is an adverb, but loved a lot if it is a quantity. Since positive *anymore* is an expansion of the grammaticality of adverbial *anymore*, I deleted 3,408 tweets where I judged it likely that *anymore* was being used to express quantity. On a related point, I did not

include the prescriptive two-word spelling, *any more*, in my searches because I found during exploratory work that the form was used overwhelmingly to express quantity. An anonymous reviewer rightly points out that this decision may have excluded relevant instances of positive *anymore*.

These procedures resulted in a corpus of more than 80,000 instances of *anymore*. I coded each token of *anymore* for the trigger that licensed negative polarity item. Initially, I followed a set of ten categories of NPI trigger from a guide by Lawler (2005). Following recommendations from anonymous reviewers, I made several additional passes through all the tokens that were not licensed by an overt negative marker and recoded according to a finer-grained set of NPI triggers, following several works in the semantics of negation, most notably Klima (1964), Wouden (1997), and Giannakidou (2011). These sequential reexaminations of the data set resulted in 20 NPI triggers, listed here along with the types of words or structures that would yield a coding of each NPI trigger and examples from the corpus:

OVERT NEGATIVE (*-n't, no, not*)

7. ; ugh.. I don't want to be on this phone anymore [A. (@vintageSINNER), Birmingham, Nov. 22, 2016, https://twitter.com/vintageSINNER/status/801152950651523072]

WH- QUESTION (*What…?, Where…?*, etc.)

8. agree 100%. Why play them anymore? [JJ Vickery (@Gobama_4_Ever), Birmingham, Nov. 29, 2016, https://twitter.com/Gobama_4_Ever/status/803615612446511105]

POLAR QUESTION (*Do…?, Should…?*, etc.)

9. Wtf!? Do liberals even know what they stand for anymore? Smh. This is why we have to #MAGA [Luke Stark (@Stark_412), Pittsburgh, Nov. 13, 2016, https://twitter.com/Stark_412/status/797604836355305472]

IF-CONDITIONAL (*if…*)

10. We have to go out of our way to make their way easier. If we want them around anymore. fb.me/1yMeuHeUL [Sabina Diestl-McCauley (@helen kanova), San Francisco, Nov. 23, 2016, https://twitter.com/helenkanova/status/801254461704470528]

NEGATIVE AFFIX ADJECTIVE (*in-, un-, -less*, etc.)

11. NFL is unbelievable anymore. [Chad Strahler (@ChadStrahler), Columbus, Nov. 8, 2016, https://twitter.com/ChadStrahler/status/795936697989136384]

NEGATIVE FREQUENCY (adverbs: *rarely, barely, seldom*, etc.; adjectives: *rare*, etc.; noun: *rarity*)

12. I barely even pay attention anymore. Lost interest. #usmnt [Gary Singh (@gary_singh), San Francisco, Nov. 21, 2016, https://twitter.com/gary_singh/status/800804933981220864]

13. and it's rare anymore to find that in retail. [Lindsay Beck (@beck6264), Pittsburgh, Nov. 14, 2016, https://twitter.com/beck6264/status/7979870 54449807360]

INHERENT NEGATIVE (verbs: *refuse, doubt*, etc.; nominalized inherent negative verb: *a struggle, doubts*, etc.)

14. If it's not a Gavin reaction meme I refuse to retweet anymore lol [Johanna (@ijudgeJOJO), Birmingham, Nov. 26, 2016, https://twitter.com/ijudge JOJO/status/802558176608604160]

15. in all seriousness I have doubts as to whether 87-year-old Chomsky remarks are even Chomsky anymore, let alone anarchist. [Robert E. P. Levy (@rplevy), San Francisco, Nov. 26, 2016, https://twitter.com/rplevy/status/802619 270056189952]

ONLY/JUST ADVERB (*only, just* modifying verb)

16. Convinced Ohio State only wins anymore because they have the power of LeBron on their side [Mat Degnan (@MatDegnan), Columbus, Nov. 26, 2016, https://twitter.com/MatDegnan/status/802631256727056388]

NEGATIVE QUANTITY (*only, few, little*, etc. modifying noun)

17. You're really the only thing that makes sense anymore. ♥ [Angelica Lovato (@a_jmarie), Kansas City, Nov. 28, 2016, https://twitter.com/a_jmarie/ status/803104276260134912]

COMPARATIVE (comparative: *-er, more than*; superlative: *-est, most*; preference: *rather, prefer*)

18. Ugh Christmas is more stressful than anything anymore [Emily (@EEmily DD), Pittsburgh, Nov. 15, 2016, https://twitter.com/EEmilyDD/status/79 8556143001993216]

19. That feeling of dread when Cutler is under center is gone. I'd rather fail with someone else than live with Cutler anymore. [Brett Solesky (@Bears _ASU), Chicago, Dec. 4, 2016, https://twitter.com/Bears_ASU/status/805 617069828009984]

TOO (*too* modifying adverb or adjective)

20. Honestly I'm too annoyed to pay attention to what other teams are doing anymore. [Keiana (@RealMamaEagle), Columbus, Dec. 1, 2016, https:// twitter.com/RealMamaEagle/status/804533904510095361]

ALL + NOUN PHRASE (*all* modifying noun, often in subject position)

21. all I want is guac anymore [Maribel Martinez (@heytheremaribel), Chicago, Dec. 3, 2016, https://twitter.com/heytheremaribel/status/805261781392 388100]

(DOWNWARD ENTAILING) PREPOSITION (*beyond, without*, etc.)

22. this is beyond my ability to understand anymore [John Casey (@JCBuild HikeRide), Kansas City, Dec. 7, 2016, https://twitter.com/JCBuildHikeRide/ status/806332540894199812]

COUNTERFACTUAL (sarcastic expressions, including *I could care less*)

23. like you have any credibility anymore [puckroger (@puckroger), St. Louis, Dec. 5, 2016, https://twitter.com/puckroger/status/805707541078560768]

ADVERSATIVE (adjectives: *hard*, *difficult*, etc.; nominalized adversative and negative-affix adjective: *inability*, *difficulty*, etc.; also: *a joke* as noun complement)

24. so hard to keep track anymore [Alpha Sigma Phi (@alphasigs), Indianapolis, Dec. 6, 2016, https://twitter.com/alphasigs/status/806268914812461057]

25. Sadly, it's almost as if social media has contributed to society's inability to debate anymore. No win… [Brian Daniels (@TheBrianDaniels), St. Louis, Nov. 13, 2016, https://twitter.com/TheBrianDaniels/status/79765 7704424673280]

26. This is a bad joke anymore [Garrett (@garrettvrooman), Indianapolis, Dec. 3, 2016, https://twitter.com/garrettvrooman/status/805120843449860096]

NEGATIVE AFFECT ADJECTIVE (emotionally negative adjectives: *scary*, *boring*, *awful*, etc.; nonmorphemic *dis-*)

27. The nfl is boring to me anymore [Jason (@jasondoyka), Pittsburgh, Nov. 13, 2016, https://twitter.com/jasondoyka/status/797889148258394116]

NEGATIVE AFFECT VERB (emotionally negative verbs: *suck*, *hate*, *piss off*, etc.)

28. Weekends suck anymore [Taylor Harrington (@TayLynn09), Columbus, Nov. 12, 2016, https://twitter.com/TayLynn09/status/797588666852003840]

POSITIVE QUANTITY (*almost all*, *a lot of*, *so much*, etc. modifying noun; adverb: *always*; *any-* + pronoun as universal quantifier with no other trigger; universal quantifier: *everything*, *everyone*, etc.)

29. this is what almost all my convos look like anymore [Isabella (@isabella bay101), San Francisco, Nov. 22, 2016, https://twitter.com/isabellabayyy/status/800946842708025344]

30. I love always having plans anymore [Jo Siah (@SIAHDELIC), Columbus, Nov. 14, 2016, https://twitter.com/SIAHDELIC/status/798260529043226624]

31. this is how I feel about anything anymore, too damn old to stand outside for a game/movie. [Robert (@VoxRC), Pittsburgh, Nov. 18, 2016, https://twitter.com/VoxRC/status/799444733399420928]

32. Kelce is dropping everything anymore. The heck is going on. [Chiefs182 (@Chiefs182), Kansas City, Nov. 28, 2016, https://twitter.com/Chiefs182/status/803053579892391937]

INTENSIFIER (*so*, *such*, *fucking*, etc.)

33. People are so fucked up anymore they can't recognize politeness or decency… [Dan Walsh (@danwalsh65), Nov. 26, 2016, https://twitter.com/danwalsh65/status/802607511576674304]

NO TRIGGER (none)

34. it is a staple of our lifestyle anymore [Gussie (@kokuhakubiyxri), Columbus, Nov. 8, 2016, https://twitter.com/kokuhakubiyxri/status/79602752 4111339520]

The list of NPI triggers above reflects a series of principled compromises to make the best possible use of a large and inherently messy natural-language data set. I will detail those compromises here, as well as reasoning behind them.

As an overarching principle, I deemed it crucially important that this research not rely on judgments of whether any given instance of *anymore* was polarity negative or positive. I grew up in the presumably positive-*anymore* speech community of Kansas City, so my judgments are inherently suspect. But the disagreements noted above over the polarity of particular instances of *anymore* among language experts from, at least in some cases, negative-*anymore* dialect areas (e.g., William Labov and Gilbert Youmans, Laurence Horn and *OED* editors) cast doubt on the prospect of anyone successfully categorizing many natural-language instances of *anymore* for polarity. This doubt is reinforced by Hindle and Sag's (1975, 92) suggestion that differing judgments about positive *anymore* reflect a continuum of "how picky" speakers are about licensing restrictions rather than a difference in discrete dialects. As such, I tried to remove judgment from the coding process and to rely instead on the presence of discrete lexical NPI triggers to categorize tweets (or, syntactic NPI triggers in the case of *wh-* and polar questions, and pragmatic in the case of counterfactual). The importance of this commitment is illustrated by several of the examples above, including 11, 16, 18, 21, and 24–26, which—to my suspect positive-*anymore* dialect, at least—allow either a negative- or positive-polarity interpretation. The NPI trigger coding scheme detailed above was developed to remove such judgments from the study.

While following this principle removes the reliance on problematic polarity judgments, it introduces another problem when an *anymore* clause contains more than one potential NPI trigger. For example, I have coded example 10 as *if*-conditional because of the overt occurrence of *if* at the start of the clause, "if she was at all relevant anymore." However, the clause is also semantically counterfactual. Or it could be an embedded polar question, "Is she at all relevant?" The NPI *at all* could also potentially license *anymore*, necessitating an additional trigger category. This messiness is a natural consequence of studying a large set of natural-language data rather than isolated citations and constructed examples. Of course, this could be addressed by coding clauses for multiple triggers (i.e., to account for "secondary triggering" or "parasitic licensing"; see, e.g., Horn 2001, 181; Dikken 2006; Hoeksema 2007). But in a sample of more than 80,000 tweets, doing so was not feasible. Coding for multiple NPI triggers would arithmetically increase the time required to code each tweet and enormously complicate statistical modeling. It would also introduce additional levels of dubious interpretation into the data set, as it would frequently be necessary to guess at authorial intent or to probe

Twitter conversations and exchanges in ways that would push the limits of research ethics for subject privacy.

I therefore risked doing damage to the data set by selecting a single NPI trigger for each instance of *anymore*. Following conceptually on Edmondson's (1983) hierarchy of affective contexts, as well as Giannakidou's (2011, 1674) distribution of *any* sanctioning environments, I attempted to code according to the "strongest" overtly present NPI trigger. The list of NPI triggers above is arranged roughly according to the hierarchy that I followed—though, in practice, there are certainly instances of NPI triggers in the middle of the hierarchy where I made interpretive judgments about licensing that deviated from the ordering above.

Relatedly, I note that the NPI triggers above were arrived at inductively over multiple iterations of analysis to best represent the data set, rather than to examine all possible NPI triggers. For instance, within the NPI trigger comparative, I initially coded separately for superlative ($n = 11$), adverbs of preference ($n = 7$), and verbs of preference ($n = 1$). However, the counts of these were very small, so I collapsed these categories into the larger category of comparative (grouping, in this case, according to Lawler's miscellaneous category of NPI triggers). Similarly, negative frequency includes the erstwhile separate NPI triggers of negative frequency adverbs, adjectives, and nouns. I completed a full analysis of the data set (as below) and found that these NPI triggers all performed identically. Given the semantic similarity between, for example, *rare*, *rarely*, and *rarity*, the lack of analytic insights from distinct categories justified collapsing these into one NPI trigger.

I also deleted four instances of *anymore* in the environment of the restrictor of a universal quantifier, as in example 35. This position standardly licenses NPIs. But the tiny set of four tweets (two from Chicago and one each from Columbus and Pittsburgh) creates problems for modeling, and I could not find a defensible way to combine the trigger with another category of NPI trigger.

35. 😳 <-- my face every time I open Twitter anymore. [Tiffany Leigh (@typha nileigh), Chicago, Dec. 2, 2016, https://twitter.com/typhanileigh/status/ 804803606100774914]

This inductive approach also yielded categories like intensifier. I am not familiar with anything in the literature on NPIs that suggests intensifiers should license NPIs. Instances of *anymore* triggered by intensifier are almost certainly polarity positive. Likewise, the category positive quantity should not license true NPIs. Intensifiers and positive quantity markers occurred so frequently with *anymore* in the corpus, however, that I deemed it appropriate to quantify these separately from the category of no trigger.

My avoidance of interpreting semantic content of tweets also precluded quantitative examination of the affective content of messages containing positive *anymore*. Youmans (1986, 73, citing a conversation with William Labov) suggests that positive *anymore* (usually but not always) "implies a negative attitude toward the state of affairs reported," so that positive *anymore* might retain "some of its association with negation." Horn (2013, 6) similarly notes that a prepondence of positive *anymore* occurrences in corpora and dictionary entries are "emotively negative," making negative affect "a characteristic (though not ineluctable) feature of positive *anymore*" (see also Horn 2014, 338–39).

I collected many positive-*anymore* tweets written with emotionally positive or neutral affect, as in examples 36–38, as well as 30 and 34 above.

> 36. I'm cool on it anymore. [Kyle Ammon (@k_burt1993), Columbus, Nov. 13, 2016, https://twitter.com/k_burt1993/status/797931197594628096]
> 37. I enjoy my own company anymore [Hannah Hall (@hannah_hall103), Indianapolis, Nov. 11, 2016, https://twitter.com/hannahmarieh2/status/797140130742079489]
> 38. Stafford playing how we expect anymore. Looking good. [Tyler White (@Tyler White95), St. Louis, Dec. 12, 2016, https://twitter.com/TylerWhite95/status/805481251167674369]

However, the overwhelming impression from the corpus is that positive *anymore* is usually used in complaints and other emotionally negative contexts, just as indicated by Youmans (1986) and Horn (2013, 2014). This impression of emotional negativity is strongly reinforced by several of the environments that license *anymore*, such as those I have labeled counterfactual, adversative, and negative affect adjective and verb, which are naturally conducive to expressing negative emotional states.

While I initially hoped to examine the emotional contexts of positive *anymore* in this article, it quickly became clear that it would not be possible to code the entire corpus for emotional affect. While many tweets are obviously emotionally negative or positive, many others—like examples 39–41—seem like they are probably complaints, but it is easy to imagine contexts where they would be emotionally neutral or positive.

> 39. 3 nurses on night shift seems to be the norm anymore 🙄 [Stephanie Fine (@StephJo205), Pittsburgh, Nov. 18, 2016, https://twitter.com/StephJo205/status/799482105591779328]
> 40. cold calling anymore is frustrating for the receiver. People rarely answer numbers they don't know. [Tisha Nagel (@quiltytherapy), Indianapolis, Dec. 2, 2016, https://twitter.com/quiltytherapy/status/804700192813551616]

41. ahah it's a tradition anymore [Jay Diamond (@The_White_Goat), Pitts-
burgh, Dec. 8, 2016, https://twitter.com/The_White_Goat/status/806927
470331039750]

As was the case for coding polarity, I deemed it ethically problematic to
probe the conversational and situational contexts of tweets in order to make
judgments about emotional affect and anticipated that doing so would still
leave emotional affect of a large number of tweets ambiguous (or scalar, i.e.,
necessitating establishing the degree of emotional affect in a given tweet).

Moreover, the number of tweets coded as overt negative also gives the
impression that standard NPI *anymore* overwhelmingly occurs in emotionally
negative contexts. It may then simply be a practical matter that people tend to
use *anymore*, whether in polarity-negative or -positive scope, frequently when
they are complaining. This would be a matter of usage, rather than a matter
of negative *anymore*'s syntactic connection to negativity being transferred to
the semantic domain of positive *anymore*. To check whether positive *anymore*
occurred at relatively higher or lower frequency in presumably syntactically
positive environments, such as positive quantity, intensifier, and no trigger,
it would also be necessary to establish the frequency with which negative
anymore occurs with emotionally positive and negative affect in the scope
of standard NPI-licensing triggers like overt negative, negative frequency,
and inherent negative. In other words, it would be appropriate to apply the
problematic coding scheme to the entire corpus. While that work might
contribute valuably to knowledge of positive *anymore* and its connection to
emotional affect, it was not feasible at this stage.

I own that this is an imperfect coding scheme. Future research may inter-
rogate it, and other data sets may dictate different coding decisions. Even
within the present data set, it is likely that new insights about *anymore* may
be gleaned from finer-grained examination of specific NPI triggers or from
recoding clauses according to different or more exhaustive lists of single or
multiple NPI triggers.

I also coded for the position where *anymore* occurred within a clause,
whether initial, medial, or final. These clausal positions are exemplified by
examples 2, 3, and 4 above, respectively. I deleted 16 tweets where *anymore*
sat between a pair of clauses and was equally interpretable as either ending
the first clause or beginning the second clause. Appendix 3 shows counts of
anymore in each clausal position by city.

For the purposes of conducting the first large-scale, production-based
study of positive *anymore,* though, the coding scheme I followed at least offers
a replicable and manageable approach to the data. I offer qualified support
for this coding scheme in the context of the present data set from the fact
that, over multiple passes through the results presented below—using as few

as 10 NPI triggers and as many as 26—the findings from the data remained fundamentally the same. I also note that, where there are flaws in the coding scheme, because of the objectivity built into it, the flaws will have been applied consistently across the data set. So, for instance, if any given NPI trigger is problematic, it will be similarly problematic across all eight cities.

The counts for each NPI trigger in each city appear in appendix 1. In total, they categorize 80,364 instances of *anymore*. Overt negative is by far the most common NPI trigger, but the sample still contains 5,642 instances with nonovert negative NPI triggers, including 442 in likely polarity-positive environments, such as positive quantity, intensifier, and no trigger.

RESULTS

ANYMORE AND NPI TRIGGERS. Because the sample is overwhelmingly dominated by *anymore* in clause-final position, the first pass through the data is limited to clause-final *anymore*. The relationship between NPI triggers and the cities where tweets originated is examined in figure 1 by conditional inference tree. Conditional inference trees mine responses to a dependent variable for statistically significant predictors. When significant predictors are found, responses are split at the factor with the lowest *p*-value, forming a node with two branches of data. Each branch is then further examined for significant predictors. The process repeats recursively until all significant splits are exhausted. The process forms a hierarchical explanation for responses to a variable, offering a very quick, intuitive way to mine large data sets for interactions. Conditional inference trees were introduced as a tool for sociolinguists by Gordon et al. (2004) and have since been used in sociolinguistic studies of grammar (e.g., Tagliamonte and Baayen 2012; Stange 2017; Schnell and Barth 2018) and sound change (Chevalier 2016; Bekker and Chevalier 2018). I used the ctree() function (Hothorn, Hornik, and Zeileis 2006) in the "partykit" package for R (Hothorn and Zeileis 2015) to generate conditional inference trees.

The tree shown in figure 1 for clause-final *anymore* can be read as showing which cities behave similarly or differently relative to others with regard to NPI trigger counts. The barplots at the terminal nodes are zoomed to make the low-count NPI triggers at least slightly visible. (On this view, the overt negative counts would extend beyond the barplots by an order of roughly 4,500.) The actual proportions of the NPI triggers are less important at this stage than the way the tree groups them according to cities.

It is immediately striking in figure 1 that the non-Midland cities of Birmingham, Chicago, and San Francisco—despite being geographically distant and assigned to different dialect regions in *ANAE*—group together.

FIGURE 1

Proportions of NPI Triggers for Clause-Final *anymore* with City as Predictor
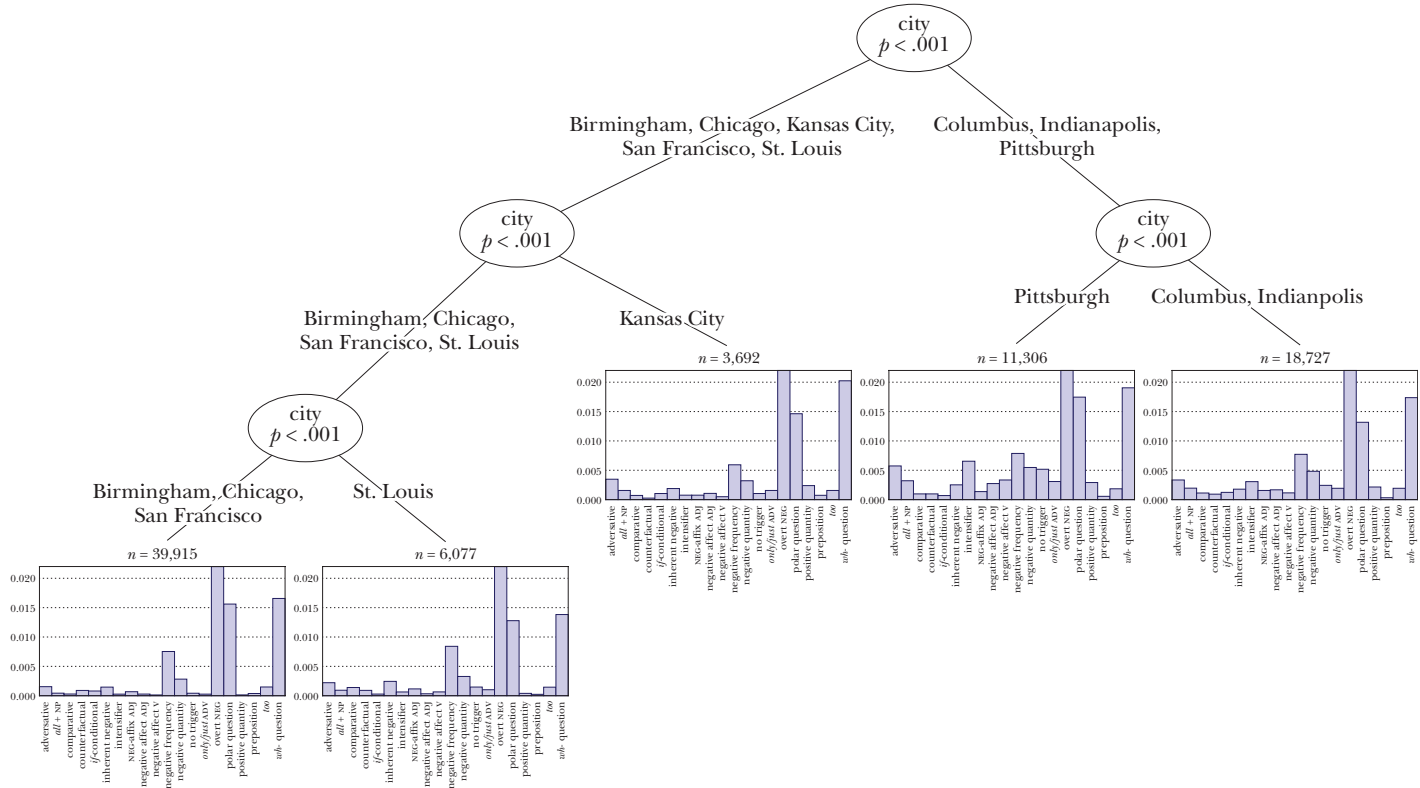
This suggests that *anymore* occurs with various NPI triggers at similar rates in the three non-Midland cities and that the occurrences of *anymore* with these NPI triggers in the non-Midland cities are different from the Midland cities.

It is also noteworthy that the Midland cities do not cluster together in a unified node in the way that the non-Midland cities do. Kansas City and St. Louis initially split from Columbus, Indianapolis, and Pittsburgh. Kansas City is then isolated into a node away from St. Louis and the non-Midland cities, and finally St. Louis is split from the non-Midland cities. On the right half of the tree, Columbus and Indianapolis end up in one node together and Pittsburgh in another.

The conditional inference tree in figure 1, then, shows an association between dialect region and NPI triggers for *anymore* between Midland and non-Midland cities. At the same time, it shows differences across the Midland, with the western Midland cities of Kansas City and St. Louis being more like the non-Midland cities than are Columbus, Indianapolis, and Pittsburgh to the east. It is noteworthy at this juncture that Columbus and Pittsburgh are in states adjacent to West Virginia, where positive *anymore* was first noted to occur in *American Speech* in the 1930s, and that high levels of production in Pittsburgh match the folk linguistic claim for positive *anymore* being part of Pittsburghese (Johnstone 2013).

To compare the rates at which NPI triggers occurred in each city, I divided the count for each NPI trigger by counts for overt negative. For example, for Birmingham, I divided 84 *wh-* questions by 4,644 overt negative to get 0.0181. Since the resulting quotients were very small, I multiplied quotients by 1,000 to create a calculation I will refer to as an "*anymore* index." While using overt negative counts to normalize counts of other NPI triggers is imperfect, overt negative at least provides one "standard" point of reference for the number of times *anymore* might be used in a community's Twitter discourse.

Figures 2 and 3 show the *anymore* indexes for each NPI trigger by city. Figure 2 focuses on the three non-Midland cities, and figure 3, the five Midland cities. Appendix 2 lists the *anymore* indexes for every NPI trigger and city, as well as averaged indexes for the Midland and non-Midland cities (for reference with figures 4 and 5).

The *anymore* indexes in figure 2 reveal the high degree of similarity in the occurrence of NPI triggers in Birmingham, Chicago, and San Francisco. Impressionistically, the line graphs for the three cities are practically identical across all NPI triggers, and especially on the right side of the graph where the most certainly positive-*anymore* licensors sit.

This contrasts with figure 3, where differences among the Midland cities are apparent for several NPI triggers. These clearly include the positive-*anymore* contexts of positive quantity, intensifier, and no trigger, as well as *wh-* and polar questions and, to some extent, negative quantity and negative

FIGURE 2
Anymore Index by NPI Trigger in Non-Midland Cities
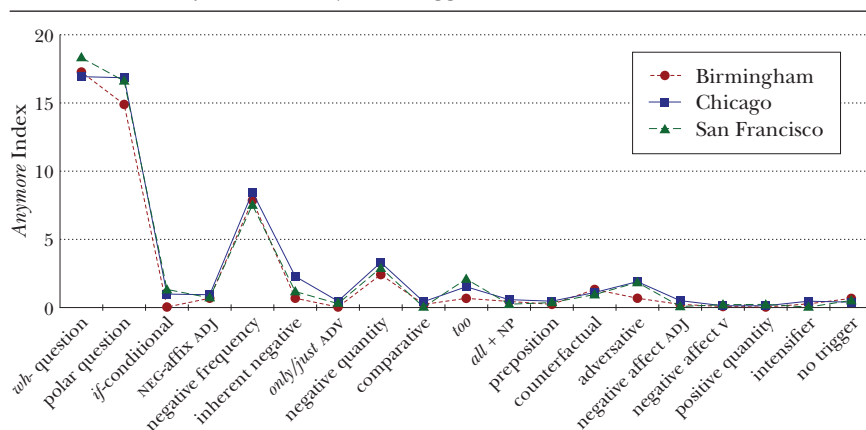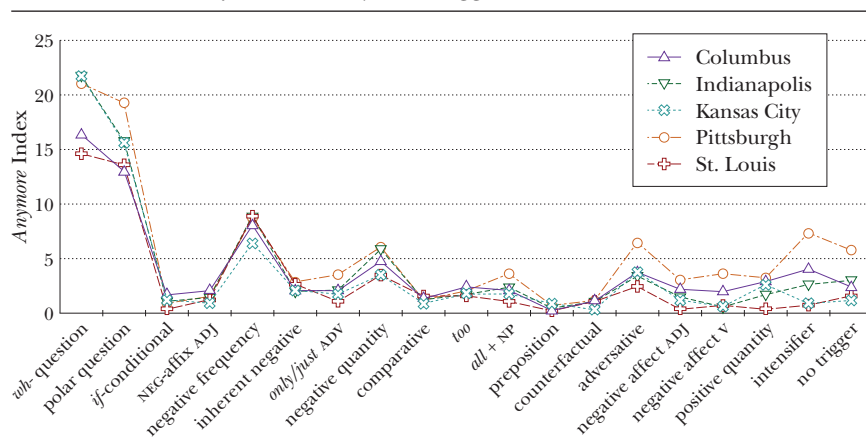

FIGURE 3
Anymore Index by NPI Trigger in Midland Cities

affect adjective and verb. Generally speaking, *anymore* indexes for Pittsburgh are at the high end of the range for each NPI trigger, and St. Louis and Kansas City are on the low end. The profile of *anymore* indexes shown not only details the differences identified among Midland cities with regard to NPI triggers by the conditional inference tree in figure 1 but also positions Pittsburgh as a core for positive *anymore*, with the frequency of positive *anymore* decreasing to the west.

For cross-regional comparison, figure 4 averages the *anymore* indexes of the three non-Midland cities into one line and the five Midland cities into another. The Midland and non-Midland lines are impressionistically
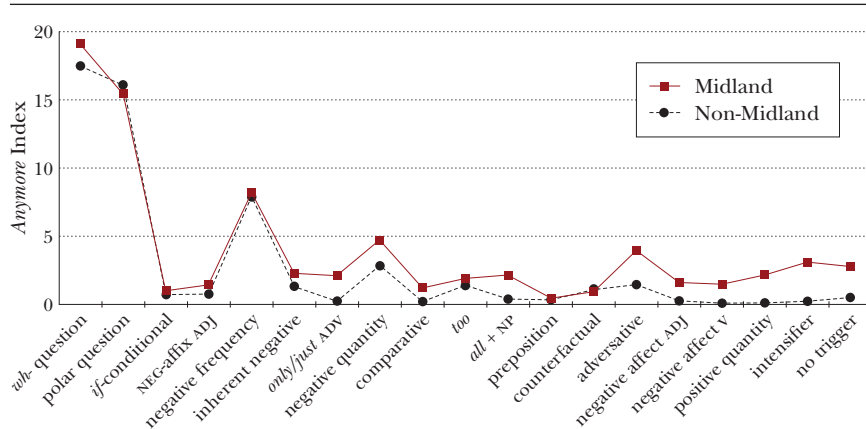
very similar for a number of NPI triggers, including *if*-conditional, negative frequency, downward entailing preposition, and counterfactual. Since these NPI triggers standardly license *anymore* in all dialects of English, the similar *anymore* indexes for these triggers are unsurprising.

Elsewhere, *anymore* indexes are higher in the Midland. The increased Midland counts are especially clear in *only/just* adverb, negative quantity, *all* + noun phrase, adversative, negative affect adjective and verb, positive quantity, intensifier, and no trigger. The greater Midland *anymore* index for positive quantity, intensifier, and no trigger again presents positive *anymore* as a productive feature of Midland grammar.

It is also noteworthy that the Midland has higher *anymore* indexes for several NPI triggers that could license *anymore* for negative-*anymore* speakers—for example, *wh*- question, negative quantity, and adversative. This suggests that in the Midland, where *anymore* is produced more frequently in non-negative-polarity contexts, *anymore* also occurs with greater frequency in some negative-polarity contexts than it does in non-Midland cities.

In figure 5, the mean *anymore* index of the three non-Midland cities is subtracted from the *anymore* index of each Midland city. This shows an absolute difference for every NPI trigger between each Midland city and the three non-Midland cities. The horizontal line at zero represents identical *anymore* indexes, and points above it represent *anymore* indexes that are larger in the Midland cities than in the non-Midland cities. The NPI triggers on the *x*-axis are arranged in ascending value according to the difference between the average of all five Midland cities and the non-Midland average.

Polar and *wh*- questions pattern curiously in figure 5. Columbus's and St. Louis's *anymore* indexes are substantially less than the non-Midland cities

FIGURE 5
Positive *anymore* Index for the Midland
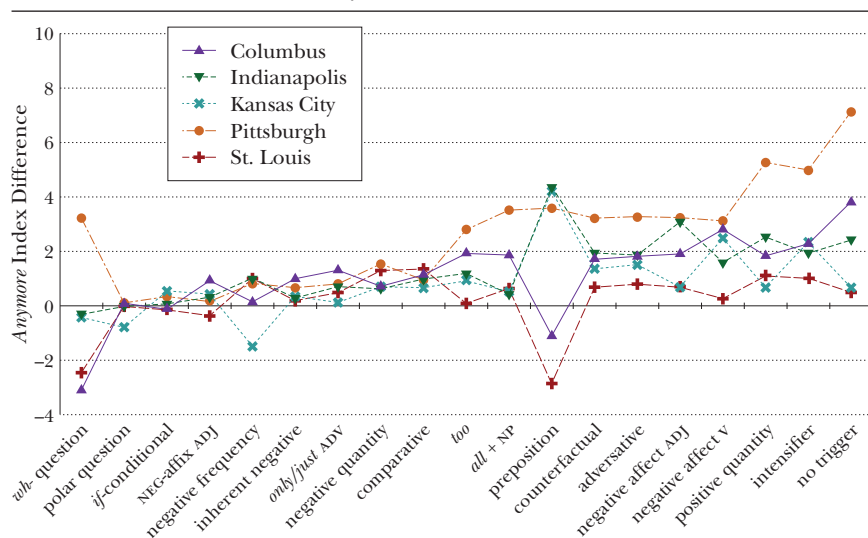
for both polar question and *wh-* question, and Pittsburgh's is greater. Indianapolis and Kansas City are slightly lower for polar question, but greater for *wh-* question. Since questions should license NPIs generally, these differences bear additional examination.

   Differences for most other NPI triggers that license *anymore* in all standard dialects are generally small. The NPI triggers that fall between counterfactual and comparative in figure 5 show basically similar differences from non-Midland averages, though it is noteworthy that *anymore* indexes for the Midland cities are generally on the positive side of the line, reinforcing the previous observation that *anymore* occurs more frequently in the Midland in many NPI trigger contexts, and not just positive-polarity ones.

   Visually, negative affect adjective appears to mark a boundary between Midland and non-Midland *anymore* indexes. Moving to the right from that NPI trigger, Pittsburgh shows a relatively steady increase in *anymore* indexes relative to non-Midland cities. Leaving *wh-* question as exceptional, Columbus, Indianapolis, and, to a lesser extent, Kansas City trend upward in this section of the plot, too—though Kansas City tails toward the non-Midland average in positive-polarity contexts of no trigger and intensifier. The line for St. Louis remains mostly above the non-Midland average, but flat.

   Among these NPI trigger contexts where Midland *anymore* indexes are larger than non-Midland averages is negative quantity, which should presumably license *anymore* in all dialects. This again suggests that, in speech

communities where *anymore* is more frequenty licensed in positive-polarity contexts, it is also used more productively in some negative-polarity contexts.

It is worth highlighting that adversative, *only/just* adverb, and *all* + noun phrase are among the Midland-preferred NPI triggers. As noted above, there is disagreement between Labov (1973) and Youmans (1986) over the acceptability of the adversative *hard* as a trigger for *anymore*, and the citations of positive *anymore* that Horn (2013, 1–2) objects to as "ordinary (a)-list NPI *anymore*" include cases of *all* + noun phrase and *only/just* adverb. The increased occurrence of *anymore* licensed by these NPI triggers may shed some light on these disagreements. From a semantic standpoint, *anymore* may be licensed by all these NPI triggers, but in this data set, *anymore* is produced more in these NPI trigger environments in the Midland than in other dialects. *Anymore* may therefore be potentially licensed everywhere by these triggers, but "more" licensed in the Midland. They may be ordinary (a)-list *anymore* from a semantic standpoint, but more extraordinary from a sociolinguistic and dialectological one.

ANYMORE AND CLAUSE POSITION. Figure 6 shows the conditional inference tree for the clausal position of *anymore* with city as predictor. Because the sample is so overwhelmingly dominated by clause-final *anymore*, the *y*-axes on the barplots are zoomed to 0.02 to make the proportions of clause-initial and -medial *anymore* visible.

The tree in figure 6 groups the Midland cities of Columbus, Indianapolis, Kansas City, and Pittsburgh together for higher proportions of clause-initial and -medial *anymore*. The non-Midland cities are again grouped together.

FIGURE 6
Proportions of *anymore* Clause Positions with City as Predictor
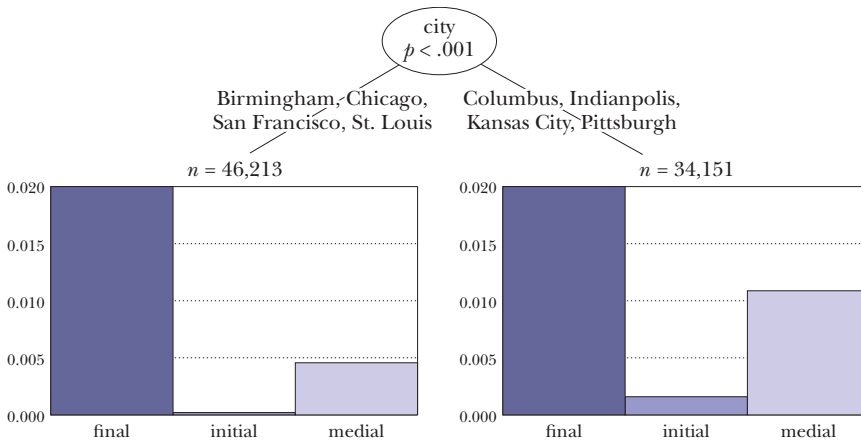
This model, however, adds St. Louis to the non-Midland cities, further attesting to St. Louis's marginal status as a positive-*anymore* speech community.

St. Louis's similarity to the non-Midland cities in terms of the clausal position of *anymore* is visible in the line graph in figure 7. The graph shows a refigured version of the *anymore* index by dividing the counts of clause-initial and -medial *anymore* from clause-final *anymore* in each city. As above, the tiny quotients are multiplied by 1,000.

The line for St. Louis sits immediately on top of the lines for Chicago and San Francisco and just under the line for Birmingham. The other four Midland cities all show higher proportions of clause-initial and -medial *anymore* than the non-Midland cities and St. Louis. In clause-medial positions, the Midland cities show the familiar pattern of Pittsburgh having the highest index, Kansas City the lowest among Midland cities, and Columbus and Indianapolis falling in between.

Of course, it is clear from the counts in appendix 3 that *anymore* is rare in positions other than clause-final, but it occurs more commonly in clause-initial and -medial positions in the Midland (St. Louis excepted) and thus provides additional evidence of innovative uses of *anymore* being a regional feature of Midland speech. The relative frequencies of clause-medial *anymore* also offer additional evidence of Pittsburgh as the core positive-*anymore* city, and St. Louis as being, at best, marginally Midland in terms of this grammatical variable.

Of course, it is likely that clause types are not all equal in their amenability to *anymore* in various clausal positions. Interrogatives, for example, can

FIGURE 7
Index for Clause-Initial and -Medial *anymore* in Each City
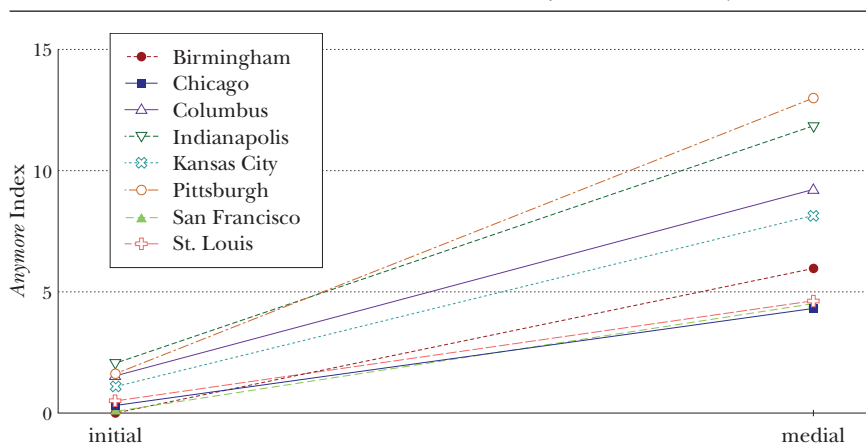
be constructed to begin with clause-initial *anymore* (e.g., "Anymore is there much to do downtown?"), but in fact there are no such constructions in the present sample. (To be precise, as an anonymous reviewer points out, *anymore* in this clause-initial position would not be licensed by an NPI trigger at all, so clause-initial *anymore* is really better thought of as "occurring with" NPI triggers.)

To examine the relationship between *anymore* clausal positions and NPI triggers, figure 8 shows a conditional inference tree of their interaction. Overt negative is excluded from the model because of the overwhelming dominance of clause-final *anymore* in that trigger context.

The tree modeled in figure 8 picks out a significant split for each clausal position. Unsurprisingly given the counts in appendix 3, every NPI trigger is associated with clause-final *anymore*, but the proportions of questions and negative frequency adverb are especially high. Clause-medial *anymore* is triggered most frequently by *all* + noun phrase as well as negative frequency and negative quantity. Clause-initial *anymore* is especially connected to *anymore* with no trigger, as well as *only/just* adverb, again pointing to that NPI trigger as a site for innovative uses of *anymore*.

DISCUSSION

This research has presented, to my knowledge, the first large-scale study of productions of positive *anymore*. Despite the inherently flawed nature of the Twitter corpus and the necessary compromises required to make the corpus analyzable, this study has offered fresh insights into a grammatical variable that has drawn interest for nearly a century but has not afforded quantitative studies of productions in natural-language data.

ANYMORE, DIALECTS, AND DIALECTOLOGY. The production data in this study confirm the association between positive *anymore* and the U.S. Midland. Tweets from the non-Midland cities of Birmingham, Chicago, and San Francisco show similar proportions of *anymore* across NPI triggers and clausal positions. *Anymore* is generally used in greater proportions in Midland cities with most NPI triggers, but especially in positive-polarity contexts like positive quantity, intensifier, and no trigger, as well as in clause-medial and clause-final position. Murray and Simon (2006, 15) posited positive *anymore* as a distinguishing feature of Midland grammar, and productions of *anymore* on Twitter support that claim.

The Midland is not monolithic with regard to *anymore* productions, though. While previous research based primarily on grammaticality judgments has described positive *anymore* as being acceptable across much of the

FIGURE 8

Proportions of Non-overt NEG NPI Triggers with Clause Position as Predictor
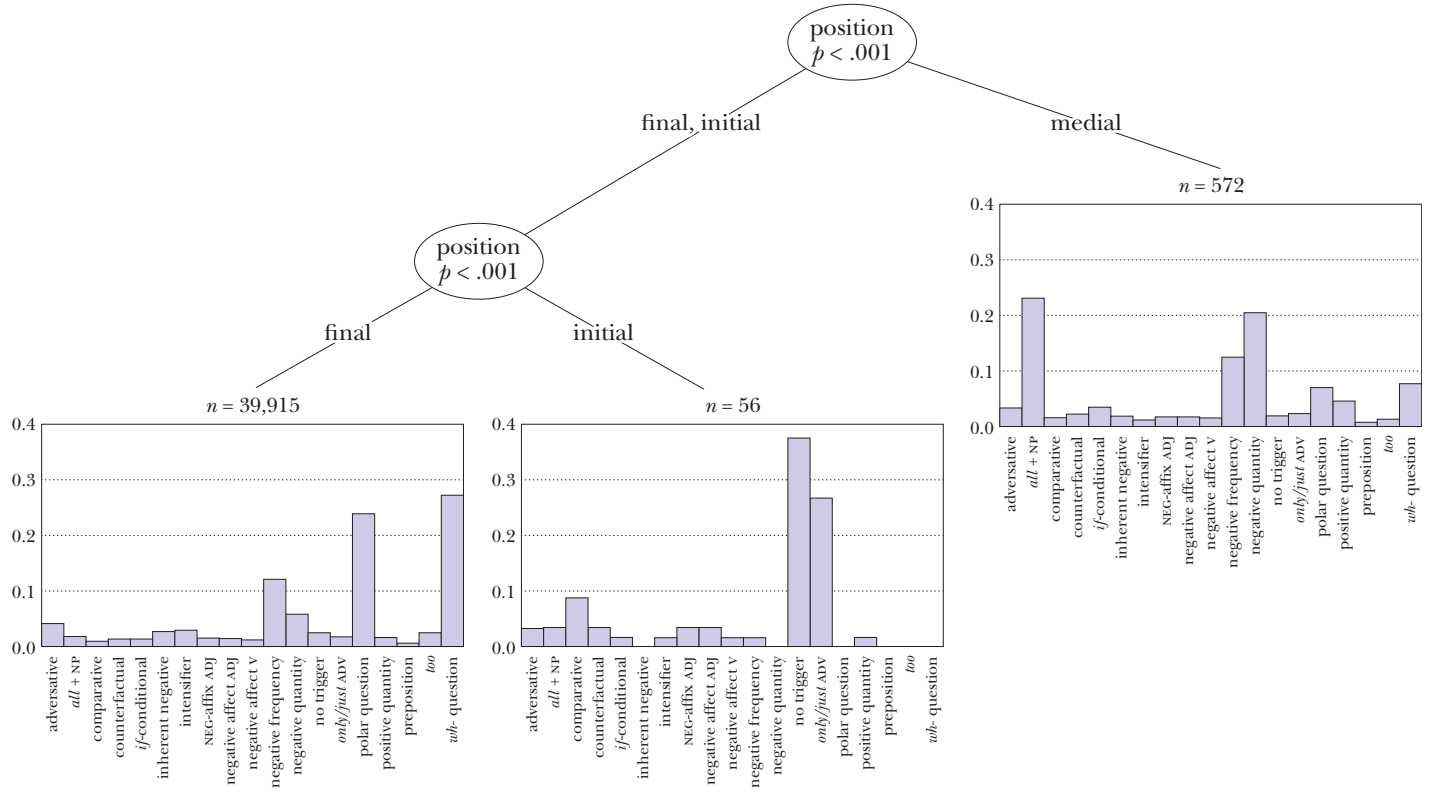
Midland, this study shows compelling evidence that positive *anymore* is used more in Pittsburgh than elsewhere in the Midland, and more in Columbus and Indianapolis than in Kansas City and St. Louis. Findings in this study put Pittsburgh at the heart of positive-*anymore* country, and the concentration of positive *anymore* in discourse dissipates through the Midland to the west.

Indeed, Kansas City and St. Louis can only be regarded as marginally positive-*anymore* speech communities based on production data. Of the two, Kansas City has a slightly better claim to positive-*anymore* membership. If St. Louis's *anymore* indexes are removed from the Midland average plotted in figure 5, then for all but five NPI triggers, St. Louis's *anymore* indexes are closer to the non-Midland average than the Midland average. St. Louis still has a greater *anymore* index for 14 of the 19 NPI triggers than the non-Midland cities, though. So St. Louis is more of a positive-*anymore* speech community than the non-Midland cities are, but it is much less positive-*anymore* than the Midland cities to the east.

An anonymous reviewer rightly challenged that claims about St. Louis must be weighed against the limitation that race cannot be controlled for in this Twitter data set. The 2010 Census reported that 18.6% of the total population of the St. Louis Metropolitan Statistical Area (MSA) identified as uniracially African American, compared with 15.0% in the Indianapolis MSA, 14.9% in Columbus, 12.5% in Kansas City, and 8.4% in Pittsburgh (Wilson et al., 2012). Strelluf and Cardwell (2019) report lower acceptability ratings for positive *anymore* among African Americans in Kansas City. It may be, then, that positive *anymore* is used less by African Americans, and the relatively lower proportions of positive-*anymore* productions in St. Louis may be a result of a greater portion of that city's tweets coming from African Americans.

St. Louis's tenuous participation in a regional grammatical feature also recalls the city's peripheral relationship to the Midland in terms of its phonology. Labov, Ash, and Boberg (2006, 276–77) showed that St. Louis aligns with the Inland North "in its resistance to the low back merger" as well as in "several indices of the Northern Cities Shift," but "[i]n a number of other respects, St. Louis is more or less aligned with the Midland." St. Louis's marginality with regard to regional phonetic and phonological characteristics in *ANAE* is paralleled by its marginality with regard to the grammatical innovation of positive *anymore*.

More broadly, the identification of an east-west cline of positive-*anymore* speech communities within the U.S. Midland is an important new contribution to knowledge about the feature. For instance, studies of positive-*anymore* grammaticality judgments—especially Youmans (1986) and Murray (1993), but also Ash (2006) and Labov, Ash, and Boberg (2006)—identified Mis-

souri as a locus for positive *anymore*. While it is clear from these studies that positive *anymore* is part of the passive grammar of Missouri, production data indicate that positive *anymore* is much less a part of the active grammar of Missouri than it is for parts of Indiana, Ohio, and Pennsylvania. This nuance in knowledge of positive *anymore* highlights the dialectological value of finding innovative methods to study productions of linguistic variables that have traditionally resisted variationist study.

It also provides empirical evidence for positive *anymore* becoming a feature of Midland grammar through an east-to-west diffusion. This would seem to coincide with the settlement- and migration-based accounts (e.g., Eitner 1951; Montgomery and Hall 2004). If a suitable diachronic corpus exists, this synchronic impression could be tested directly. Similar relative *anymore* indexes across the Midland (i.e., higher to the east and lower to the west) would support the hypothesis of a wave-like spread. Of course, the *anymore* indexes in this study would also provide a baseline for the incidence of positive *anymore*, and the same diachronic study could compare *anymore* indexes at a different point in time to help determine whether positive *anymore* is stable or changing as a productive grammatical variable. Given the increasingly massive corpora of historical texts that are being developed relatively routinely (e.g., Davies 2010–, 2011–), it seems likely that a corpus sufficient for such a diachronic study either exists or will exist soon. Otherwise, the present study may serve as a real-time baseline for a future study.

If such studies are possible, it will be very interesting to see whether the apparent distinctness of the Midland as a dialect region with regard to positive *anymore* persists. A number of recent phonetic and phonological studies suggest that some of the regional dialect diversity marked out by *ANAE* may be leveling, especially as major patterns like the Northern Cities Shift and Southern Shift retreat in favor of more general patterns of low-back vowel merger and front short vowel retraction (see Strelluf 2018, chap. 9; Becker, forthcoming). Productions of positive *anymore* suggest that long-standing regional dialect divisions that have previously existed in lexis and phonology may still be maintained in low-frequency grammatical variables like positive *anymore*. Such low-frequency features could, in the changing landscape of American Englishes, take on new importance in mapping that landscape.

ANYMORE NPIS, MEANINGS, AND METHODS. This study approached positive *anymore* from a variationist perspective informed by the semantics of NPIs, as well as a tradition of dialectological studies of positive *anymore*. That interaction led to the development of a relatively complex coding scheme for NPI triggers. This further enabled the creation of an *anymore* index for comparing the proportions of productions of *anymore* in various NPI trigger

environments and different speech communities. These coding and quantificational methods provide a useful framework for future studies on positive *anymore* and, potentially, other linguistic variables that have similarly resisted variationist examination.

Differences between the *anymore* indexes of Midland and non-Midland cities, as well as among cities within the Midland, are especially important for comparative study. The averaged non-Midland *anymore* index in appendix 2 might serve as a baseline for determining whether a speech community has an *anymore*-positive or -negative grammar.

Similarly, differences between the *anymore* indexes of particular NPI triggers may help inform the path *anymore* follows to lose its negative-polarity licensing requirement. The profile of Kansas City's *anymore* indexes relative to those of other communities, for instance, shows *anymore* being produced at relatively elevated levels in several NPI-licensing environments, but not in the straightforwardly positive-polarity environments of positive quantity, intensifer, and no trigger. Many of the occurrences of *anymore* with traditionally negative-licensing triggers, however, lend themselves easily to a grammatically positive interpretation:

ADVERSATIVE

42. it's 2016. Hard to tell anymore. [John Casey (@JCBuildHikeRide), Kansas City, Nov. 30, 2016, https://twitter.com/JCBuildHikeRide/status/8041117 79014000640]

ONLY/JUST ADV

43. I only write in cursive anymore . Writing in print is dreadfully slow [Justin Daugherty (@CITK_4_JD), Kansas City, Dec. 1, 2016, https://twitter.com/ CITK_4_JD/status/804362494366060544]

ALL + NP

44. Seems like all I do anymore on my days off is clean 🙄😡 [Tori Simone (@TORificoo), Kansas City, Dec. 8, 2016, https://twitter.com/TORificoo/ status/806907254712700928]

One possibility, then, is that a subset of NPI triggers that standardly license NPIs in all dialects operates to transition interpretations and uses of *anymore* from negative- to positive-polarity contexts. As *anymore* is produced more frequently with these NPI triggers, it might become polarity ambiguous, facilitating a subsequent increase in polarity-positive usages. This subset would appear to include negative affect adjective and verb, *all* + noun phrase, *only/just* adverb, negative quantity, and adversative.

On the other hand, increased production of *anymore* in positive-polarity contexts like positive quantity, intensifier, and no trigger may license posi-

tive *anymore* to occur more in contexts that could standardly license negative *anymore*. In this instance, the high occurrence of *anymore* in the eastern Midland cities in intensifier and no trigger would be dragging the occurrence of *anymore* with other NPI triggers upward in those cities.

Resolving these two possibilities is most likely the work of future diachronic study, though concentrated synchronic analysis of *anymore* in specific NPI trigger environments might also prove fruitful. Either way, it is worth pointing out that "transition" suggests a semantic account of positive *anymore* like the one offered by Hindle and Sag (1975), where *anymore* always asserts 'now' but presupposes a contrast with the past, and that dialects simply differ on the strength of the requirement for polarity licensing. This could be updated with Giannakidou's (2011, 1687) description of "rescuing," with the grammatical innovation being the extent to which dialects will add context to license an occurrence of *anymore* that is not overtly licensed. Alternately, Horn (2016, 281) identified incorrect predictions about NPI licensing made by rescuing operations and instead suggested that NPI licensing involves calculation of the "asserted/at issue component of meaning," as well as "the speaker's expectations about the hearer's dynamically constructed discourse model." Following Horn (2016), Hindle and Sag (1975) might be updated to suggest that positive *anymore* emerges from scalar differences in speakers' calculations of assertoric content required to license *anymore*. These explanations contrast with Labov's (1973) claim that positive *anymore* marks a distinct boundary in grammars, which Youmans (1986) also sided with.

Clearly, then, variationist and dialectological understandings of positive *anymore* benefit from the semantic accounts of NPIs. At the same time, semantic accounts of NPIs may benefit from variationst and dialectological understandings of positive *anymore*. In particular, I rehash the observation that, in published cases where language scholars have disagreed over the polarity of *anymore*, the NPI triggers that are present are the ones that trigger *anymore* more frequently in the Midland. Indeed, beyond NPI triggers like adversative and *only/just* adverb, this observation extends to *wh-* questions, which I treated above as anomalous. Youmans (1986, 61) reported that survey respondents were evenly divided with regard to the grammaticality of *wh-* questions. The Midland leads the non-Midland cities in *anymore* indexes for *wh-* question, and the Midland cities are also differentiated intraregionally. *Wh-* questions may, then, be another environment where *anymore* is "more licensed" to occur in positive-*anymore* grammars than in negative ones. The intuitional disagreements among language experts and grammaticality survey respondents may indicate gradations in the licensing ability of specific NPI triggers for *anymore*. Variationist studies of large production-based natural-language data sets may usefully reveal these gradations and in doing so help advance semantic theory.

APPENDIX 1
Counts of *anymore* by NPI Trigger and City

Trigger	Non-Midland				Midland				Total
	Birm.	Chic.	S.F.	Colu.	Ind.	K.C.	Pitts.	St. L.	
overt NEG	4,644	18,822	14,367	9,734	7,682	3,456	10,268	5,749	74,722
wh- question	84	330	272	164	174	76	217	89	1,406
polar question	72	324	247	130	127	54	206	80	1,240
if-conditional	1	19	23	22	10	6	12	3	96
NEG-affix ADJ	5	20	11	21	12	4	19	7	99
negative frequency	39	176	115	91	76	27	104	53	681
inherent negative	3	45	21	20	15	7	31	16	158
only/just ADV	1	11	6	26	21	9	43	7	124
negative quantity	18	76	55	65	69	16	90	25	414
coparative	1	11	0	14	14	3	17	9	69
too	3	28	30	25	14	6	23	10	139
all + NP	6	18	10	46	48	14	81	13	236
preposition	2	10	6	2	3	3	7	1	34
counterfactual	7	21	16	11	11	3	16	7	92
adversative	3	41	28	40	28	13	71	16	240
negative affect ADJ	1	9	1	22	13	5	38	3	92
negative affect V	0	3	2	20	6	5	40	4	80
positive quantity	1	2	5	36	18	11	42	2	117
intensifier	1	8	0	41	25	3	76	4	158
no trigger	4	13	7	31	27	5	70	10	167
TOTAL	4,896	19,987	15,222	10,561	8,393	3,726	11,471	6,108	80,364

APPENDIX 2
Anymore Indexes by NPI Trigger and City

Trigger	Non-Midland				Midland					
	Birm.	Chic.	S.F.	Mean	Colu.	Ind.	K.C.	Pitts.	St. L.	Mean
wh- question	17.2	16.9	18.3	17.5	16.3	21.7	21.7	21.1	14.6	19.1
polar question	14.9	16.8	16.6	16.1	13.0	15.8	15.6	19.3	13.6	15.4
if-conditional	0.0	1.0	1.3	0.7	1.6	1.0	1.2	0.9	0.3	1.0
NEG-affix ADJ	0.6	0.9	0.7	0.7	2.1	1.4	0.9	1.6	1.2	1.4
negative frequency	7.8	8.4	7.4	7.9	8.0	8.9	6.4	8.7	8.9	8.2
inherent negative	0.6	2.2	1.1	1.3	2.1	2.0	2.0	2.8	2.6	2.3
only/just ADV	0.0	0.4	0.3	0.2	2.1	2.1	1.7	3.5	1.0	2.1
negative quantity	2.4	3.2	2.9	2.8	4.7	5.9	3.5	6.0	3.5	4.7
coparative	0.2	0.4	0.0	0.2	1.3	1.2	0.9	1.2	1.6	1.2
too	0.6	1.5	2.0	1.4	2.4	1.7	1.7	2.0	1.6	1.9
all + NP	0.4	0.5	0.2	0.4	2.1	2.3	1.7	3.6	1.0	2.2
preposition	0.2	0.4	0.3	0.3	0.2	0.4	0.9	0.7	0.2	0.5
counterfactual	1.3	1.1	0.9	1.1	1.1	1.0	0.3	1.2	1.0	0.9
adversative	0.6	1.9	1.8	1.4	3.7	3.4	3.8	6.4	2.4	3.9
negative affect ADJ	0.2	0.5	0.1	0.3	2.2	1.4	1.2	3.0	0.3	1.6
negative affect V	0.0	0.1	0.1	0.1	2.0	0.5	0.6	3.6	0.7	1.5
positive quantity	0.0	0.1	0.2	0.1	2.9	1.7	2.6	3.2	0.3	2.1
intensifier	0.2	0.4	0.0	0.2	4.0	2.6	0.9	7.3	0.7	3.1
no trigger	0.6	0.4	0.5	0.5	2.4	3.0	1.2	5.7	1.6	2.8

APPENDIX 3

Counts of *anymore* by Clause Position and City

Position	Non-Midland			Midland					Total
	Birm.	*Chic.*	*S.F.*	*Colu.*	*Ind.*	*K.C.*	*Pitts.*	*St. L.*	
initial	0	6	1	16	17	4	18	3	65
medial	29	86	68	96	98	30	147	28	582
final	4,867	19,895	15,153	10,449	8,278	3,692	11,306	6,077	79,717
TOTAL	4,896	19,987	15,222	10,561	8,393	3,726	11,471	6,108	80,364

NOTE

REFERENCES

Ash, Sharon. 2006. "The North American Midland as a Dialect Area." In *Language Variation and Change in the American Midland: A New Look at 'Heartland' English,* edited by Thomas E. Murray and Beth Lee Simon, 33–56. Amsterdam: Benjamins.

Austen, Martha. 2017. "'Put the Groceries Up': Comparing Black and White Regional Variation." *American Speech* 92, no. 3 (Aug.): 298–320. https://doi.org/10.1215/00031283-4312064.

Becker, Kara, ed. Forthcoming. *The Low-Back Merger Shift: Uniting the Canadian Vowel Shift, the California Vowel Shift, and Short Front Vowel Rotations across North America.* Publication of the American Dialect Society 104. Durham, N.C.: Duke University Press.

Bekker, Ian, and Alida Chevalier. 2018. "The Colour of Liquid: /l/ in South African English." Paper presented at Sociolinguistics Symposium 22, Auckland, New Zealand, June 27–30, 2018.

Bergen, Anke von, and Karl von Bergen. 1993. *Negative Polarität im Englischen.* Tübingen: Narr.

Carter, Charles W., Jr. 1932. "Any More Again." *American Speech* 7, no. 3 (Feb.): 235–36. https://doi.org/10.2307/451673.

Chevalier, Alida. 2016. "Globalisation versus Internal Development: The Reverse Short Front Vowel Shift in South African English." Ph.D. diss., University of Cape Town. http://hdl.handle.net/11427/20292.

Cox, John Harrington. 1932. "Any More Again." *American Speech* 7, no. 3 (Feb.): 236. https://doi.org/10.2307/451673.

Coye, Dale F. 2009. "Dialect Boundaries in New Jersey." *American Speech* 84, no. 4 (Winter): 414–52. https://doi.org/10.1215/00031283-2009-032.

Crozier, Alan. 1984. "The Scotch-Irish Influence on American English." *American Speech* 59, no. 4 (Winter): 310–31. https://doi.org/10.2307/454783.

DARE. Dictionary of American Regional English. 1985. Vol. 1, *Introduction and A–C.* Edited by Frederc G. Cassidy et al. Cambridge, Mass.: Belknap Press of Harvard University Press.

Davies, Mark. 2010–. The Corpus of Historical American English (COHA): 400 Million Words, 1810–2009. Brigham Young University. Available at https://corpus.byu.edu/coha/.

———. 2011–. Google Books Corpus. Brigham Young University. Available at http://googlebooks.byu.edu/.

Dikken, Marcel den. 2006. "Parasitism, Secondary Triggering, and Depth of Embedding." In *Crosslinguistic Research in Syntax and Semantics: Negation, Tense, and Clausal Architecture*, edited by Raffaella Zanuttini, Héctor Campos, Elena Herburger, and Paul Portner, 151–74. Washington, D.C.: Georgetown University Press.

Doyle, Gabriel. 2014. "Mapping Dialectal Variation by Querying Social Media." In *Proceedings of the 14th Conference of the European Chapter of the Association for Computational Linguistics*, edited by Shuly Wintner, Sharon Goldwater, and Stefan Riezler, 98–106. Gothenburg, Sweden: Association for Computational Linguistics. http://aclweb.org/anthology/E/E14/E14-1011.pdf.

Duggan, Maeve, and Aaron Smith. 2013. "Social Media Update 2013." Pew Research Center. https://www.pewinternet.org/2013/12/30/social-media-update-2013/.

Dunlap, A. R. 1945. "Observations on American Colloquial Idiom." *American Speech* 20, no. 1 (Feb.): 12–21. https://doi.org/10.2307/487135.

Edmondson, J. A. 1983. "Polarity Auxiliaries." In *Linguistic Categories: Auxiliaries and Related Puzzles*, edited by Frank Heny and Barry Richards, 49–68. Dordrecht: Reidel.

Eisenstein, Jacob. 2017. "Identifying Regional Dialects in On-Line Social Media." In *Handbook of Dialectology*, edited by Charles Boberg, John Nerbonne, and Dominic Watt, 368–83. Hoboken, N.J.: Wiley Blackwell.

Eisenstein, Jacob, Brendan O'Connor, Noah A. Smith, and Eric P. Xing. 2012. "Diffusion of Lexical Change in Social Media." *PLoS ONE* 9, no. 11: e113114. https://doi.org/10.1371/journal.pone.0113114.

Eitner, Walter H. 1951. "Affirmative 'Any More' in Present-Day American English." *Papers of the Michigan Academy of Science, Arts, and Letters* 35 (1949): 311–16.

The English Dialect Dictionary: Being the Complete Vocabulary of All Dialect Words Still in Use, or Known to Have Been in Use during the Last Two Hundred Years. 1898. Edited by Joseph Wright. London: Frowde.

Ferguson, D. W. 1932. "Any More." *American Speech* 7, no. 3 (Feb.): 233–34. https://www.jstor.org/stable/451670.

Follett, Wilson. 1998. *Modern American Usage: A Guide.* Revised by Erik Wensberg. New York: Hill and Wang.

Gentry, Jeff. 2015. twitteR: R Based Twitter Client. R package. Version 1.1.9. https://CRAN.R-project.org/package=twitteR.

Giannakidou, Anastasia. 2011. "Negative and Positive Polarity Items." In *Semantics: An International Handbook of Natural Language Meaning*, vol. 2, edited by Klaus von Heusinger, Claudia Maienborn, and Paul Portner, 1660–1712. Berlin: de Gruyter

Gibbens, V. E. 1944. "Notes on Indiana Speech." *American Speech* 19, no. 3 (Oct.): 204–6. https://doi.org/10.2307/487293.

Gordon, Elizabeth, Lyle Campbell, Jennifer Hay, Margaret Maclagan, Andrea Sudbury, and Peter Trudgill. 2004. *New Zealand English: Its Origins and Evolution.* Cambridge: Cambridge University Press.

Harper Dictionary of Contemporary Usage. 1975. By William Morris and Mary Morris. New York: Harper and Row. 2nd. ed., 1985.

Hindle, Donald, and Ivan Sag. 1975. "Some More on *anymore*." In *Analyzing Variation in Language: Papers from the Second Colloquium on New Ways of Analyzing Variation*, edited by Ralph W. Fasold and Roger W. Shuy, 89–110. Washington, D.C.: Georgetown University Press.

Hoeksema, Jack. 2007. "Parasitic Licensing of Negative Polarity Items." *Journal of Comparative Germanic Linguistics* 10, no. 3 (Oct.): 163–82. https://doi.org/10.1007/s10828-007-9012-y.

———. 2010. "Negative and Positive Polarity Items: An Investigation of the Interplay of Lexical Meaning and Global Conditions on Expression." In *The Expression of Negation*, edited by Laurence R. Horn, 187–224. Berlin: De Gruyter Mouton.

Horn, Laurence R. 1970. "Ain't it Hard (Anymore)." In *Papers from the Sixth Regional Meeting, Chicago Linguistic Society, April 16–8, 1970*, edited by Mary A. Campbell, James Lindholm, Alice Davison, William Fisher, Louanna Furbee, Julie Lovins, Edward Maxwell, John Reighard, and Stephen Straight, 318–27. Chicago: Chicago Linguistic Society.

———. 2001. "Flaubert Triggers, Squatitive Negation, and Other Quirks of Grammar." In *Perspectives on Negation and Polarity Items*, edited by Jack Hoeksema, Hotze Rullmann, Víctor Sánchez-Valencia, and Ton van der Wouden, 173–200. Amsterdam: Benjamins.

———. 2002. "Assertoric Inertia and NPI-Licensing." In *CLS 38: Proceedings of the 38th Meeting of the Chicago Linguistic Society*, vol. 2, *The Panels*, edited by Mary Andronis, Erin Debenport, Anne Pycha, and Keiko Yoshimura, 55–82. Chicago: Chicago Linguistic Society.

———. 2013. "Even More on *anymore*." Unpublished manuscript. https://web.stanford.edu/dept/linguistics/structures_evidence/website/docs/papers/horn_2013_revised.pdf.

———. 2014. "Afterword: Microvariation in Syntax and Beyond." In *Micro-Syntactic Variation in North American English*, edited by Raffaella Zanuttini and Laurence R. Horn, 324–47. Oxford: Oxford University Press.

———. 2016. "Licensing NPIs: Some Negative (and Positive) Results." In *Negation and Polarity: Experimental Perspectives*, edited by Pierre Larrivée and Chungmin Lee, 281–306. Berlin: Springer.

Hothorn, Torsten, Kurt Hornik, and Achim Zeileis 2006. "Unbiased Recursive Partitioning: A Conditional Inference Framework." *Journal of Computational and Graphical Statistics* 15, no. 3: 651–74. https://doi.org/10.1198/106186006X133933.

Hothorn, Torsten, and Achim Zeileis. 2015. "*partykit*: A Modular Toolkit for Recursive Partytioning in R." *Journal of Machine Learning Research* 16: 3905–9. http://jmlr.org/papers/v16/hothorn15a.html.

Johnstone, Barbara. 2013. *Speaking Pittsburghese: The Story of a Dialect.* Oxford: Oxford University Press.

Jones, Taylor. 2015. "Toward a Description of African American Vernacular English Dialect Regions Using 'Black Twitter.'" *American Speech* 90, no. 4 (Nov.): 403–40. https://doi.org/10.1215/00031283-3442117.

Klima, Edward S. 1964. "Negation in English." In *The Structure of Language: Readings in the Philosophy of Language*, edited by Jerry A. Fodor and Jerrold J. Katz, 246–323. Englewood Cliffs, N.J.: Prentice-Hall.

Krueger, John R. 1965. "More on 'Anymore.'" *American Speech* 40, no. 2 (May): 159. https://www.jstor.org/stable/453728.

Krumpelmann, John T. 1939. "West Virginia Peculiarities." *American Speech* 14, no. 2 (Apr.): 155–56. https://doi.org/10.2307/451230.

Kurath, Hans. 1931. "The Geography of Speech: Plans for a Linguistic Atlas of the United States and Canada." *Geographical Review* 21, no. 3 (July): 483–86. https://doi.org/10.2307/209435.

Labov, William. 1972. *Sociolinguistic Patterns.* Philadelphia: University of Pennsylvania Press.

———. 1973. "Where Do Grammars Stop?" In *Report on the Twenty-Third Annual Round Table Meeting on Linguistics and Language Studies*, edited by Roger W. Shuy, 43–88. Washington, D.C.: Georgetown University Press.

Labov, William, Sharon Ash, and Charles Boberg. 2006. *The Atlas of North American English: Phonetics, Phonology, and Sound Change; A Multimedia Reference Tool.* Berlin: Mouton de Gruyter.

Ladusaw, William A. 1980. *Polarity Sensitivity as Inherent Scope Relations.* New York: Garland.

———. 1996. "Negation and Polarity Items." In *The Handbook of Contemporary Semantic Theory*, edited by Shalom Lappin, 321–41. Oxford: Blackwell.

Lawler, John. 2005. "Negation and NPIs." University of Michigan. Last modified Oct. 29, 2005. http://www.umich.edu/~jlawler/NPIs.pdf.

Leetaru, Kalev H., Shaowen Wang, Guofeng Cao, Anand Padmanabhan, and Eric Shook. 2013. "Mapping the Global Twitter Heartbeat: The Geography of Twitter." *First Monday* 18, no. 5. http://firstmonday.org/ojs/index.php/fm/article/view/4366/3654.

Lyman, Dean B. 1936. "Idioms in West Virginia." *American Speech* 11, no. 1 (Feb.): 63. https://www.jstor.org/stable/452685?seq=14.

Maher, Zach. 2011. "Positive *anymore.*" Yale Grammatical Diversity Project: English in North America. Yale University. http://ygdp.yale.edu/phenomena/positive-anymore. Updated by Tom McCoy, Aug. 22, 2015; updated and revised by Katie Martin, June 27, 2018.

Malone, Kemp. 1931. "*Any More* in the Affirmative." *American Speech* 6, no. 6 (Aug.): 460. https://doi.org/10.2307/452407.

Maxfield, E. K. 1931. "The Speech of South-Western Pennsylvania." *American Speech* 7, no. 1 (Oct.): 18–20. https://doi.org/10.2307/451308.

McCain, John Walker, Jr. 1939. "Any More." *American Speech* 14, no. 4 (Dec.): 304. https://doi.org/10.2307/451635.

Mencken, H. L. 1948. *The American Language: An Inquiry into the Development of English in the United States. Supplement II.* New York: Knopf.

Menner, Robert. J. 1933. "Linguistic Geography and the American Atlas." *American Speech* 8, no. 3 (Oct.): 3–7. https://doi.org/10.2307/3181750.

Montgomery, Michael B., and Joseph S. Hall. 2004. *Dictionary of Smoky Mountain English.* Knoxville: University of Tennessee Press.

Murray, Thomas E. 1993. "Positive *anymore* in the Midwest." In *"Heartland" English: Variation and Transition in the American Midwest,* edited by Timothy C. Frazer, 173–86. Tuscaloosa: University of Alabama Press.

Murray, Thomas E., and Beth Lee Simon. 2006. "What Is Dialect? Revisiting the Midland." In *Language Variation and Change in the American Midland: A New Look at 'Heartland' English,* edited by Thomas E. Murray and Beth Lee Simon, 1–30. Amsterdam: Benjamins.

Nock, Francis J. 1959. "The Affirmative 'Any More' Again." *American Speech* 34, no. 2 (May): 157. https://www.jstor.org/stable/454396.

OED. Oxford English Dictionary. 2000–. Online ed. Oxford University Press. http://www.oed.com.

Parker, Frank. 1975. "A Comment on *anymore.*" *American Speech* 50, no. 3/4 (Autumn–Winter): 305–10. https://doi.org/10.2307/3088009.

Pavalanathan, Umashanthi, and Jacob Eisenstein. 2015. "Audience-Modulated Variation in Online Social Media." *American Speech* 90, no. 2 (May): 187–213. https://doi.org/10.1215/00031283-3130324.

Pound, Louis. 1935. "Notes and Comments." *American Speech* 10, no. 2 (Apr.): 159–60. https://doi.org/10.2307/451752.

R Core Team. 2017. R: A Language and Environment for Statistical Computing. Version 3.5.1. R Foundation for Statistical Computing. Vienna, Austria. https://www.R-project.org/.

Russell, I. Willis. 1941. "Notes on American Usage." *American Speech* 16, no. 1 (Feb.): 17–20. https://doi.org/10.2307/486681.

Schnell, Stefan, and Danielle Barth. 2018. "Discourse Motivations for Pronominal and Zero Objects across Registers in Vera'a." *Language Variation and Change* 30, no. 1 (Mar.): 51–81. https://doi.org/10.1017/S0954394518000054.

The Scottish National Dictionary: Designed Partly on Regional Lines and Partly on Historical Principles, and Containing All the Scottish Words Known to Be in Use or to Have Been in Use since c. 1700. 1931. Vol. 1, *A–Bitteraks.* Edited by William Grant. Edinburgh: Scottish National Dictionary Association.

Shields, Kenneth. 1997. "Positive *anymore* in Southeastern Pennsylvania." *American Speech* 72, no. 2 (Summer): 217–20. https://doi.org/10.2307/455794.

Squires, Lauren, ed. 2016a. *English in Computer-Mediated Communication: Variation, Representation, and Change.* Berlin: Walter de Gruyter.

———. 2016b. "Twitter: Design, Discourse, and the Implications of Public Text." In *The Routledge Handbook of Language and Digital Communication,* edited by Alexandra Georgakopoulou and Tereza Spilioti, 239–55. New York: Routledge.

Stange, Ulrike. 2017. "'You're So Not Going to Believe This': The Use of GenX *so* in Constructions with Future *going to* in American English." *American Speech* 92, no. 4 (Nov.): 487–524. https://doi.org/10.1215/00031283-4395168.

Strelluf, Christopher. 2018. *Speaking from the Heartland: The Midland Vowel System of Kansas City.* Publication of the American Dialect Society 103. Durham, N.C.: Duke University Press. https://read.dukeupress.edu/pads/issue/103/1.

Strelluf, Christopher, and Tasha Cardwell. 2019. "Surveying Borders in a Speech Community." *Dialectologia* 22: 133–72. http://www.publicacions.ub.edu/revistes/ejecuta_descarga.asp?codigo=1515.

Tagliamonte, Sali A. 2006. *Analysing Sociolinguistic Variation.* Cambridge: Cambridge University Press.

Tagliamonte, Sali A., and R. Harald Baayen 2012. "Models, Forests, and Trees of York English: *Was/were* Variation as a Case Study for Statistical Practice." *Language Variation and Change* 24, no. 2 (July): 135–78. https://doi.org/10.1017/S0954394512000129.

Tucker, R. Whitney. 1944. "Notes on the Philadelphia Dialect." *American Speech* 19, no. 1 (Feb.): 37–42. https://doi.org/10.2307/486530.

Twitter. 2017. "Developer Agreement." Last modified Nov. 3, 2017. Accessed Nov. 29, 2017. https://developer.twitter.com/en/developer-terms/agreement.

Vaux, Bert, and Scott A. Golder. 2003. The Harvard Dialect Survey. Department of Linguistics, Harvard University. http://dialect.redlog.net/.

Wentworth, Harold. 1944. *American Dialect Dictionary.* New York: Crowell.

Wilson, Steven G., David A. Plane, Paul J. Mackun, Thomas R. Fischetti, and Justyna Goworowska. 2012. "Patterns of Metropolitan and Micropolitan Population Change: 2000 to 2010." With Darryl T. Cohen, Marc J. Perry, and Geoffrey W. Hatchard. Report number C2010SR-01. Washington, D.C.: U.S. Census Bureau. https://www.census.gov/library/publications/2012/dec/c2010sr-01.html.

Wolfram, Walt, and Donna Christian. 1976. *Appalachian Speech.* Arlington, Va.: Center for Applied Linguistics.

Wouden, Ton van der. 1997. *Negative Contexts: Collocation, Polarity and Multiple Negation.* London: Routledge.

Youmans, Gilbert. 1986. "Any More on *anymore*? Evidence from a Missouri Dialect Survey." *American Speech* 61, no. 1 (Spring): 61–75. https://doi.org/10.2307/454709.

Zwarts, Frans. 1998. "Three Types of Polarity." In *Plurality and Quantification,* edited by Fritz Hamm and Erhard Hinrichs, 177–238. Dordrecht: Kluwer.

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