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Rethinking Number in *There's*, *Here's*, and *Where's*

Kasey Lowe & Hongchen Wu [1]

Abstract. Noun-verb number agreement is widely regarded as a core grammatical constraint in English, but constructions in the form *there's + NP.pl* are widely used and accepted by English speakers. Previous studies on singular agreement have focused on the *there's + NP.pl* form, finding that such constructions are generally free from the social stigma that are usually linked to agreement errors. We extend the empirical domain by analyzing the prevalence of singular agreement across *[X] + be* constructions for $X \in$ {*there, where, here, how*} in the Corpus of Contemporary American English (COCA) sample texts. We then propose an Optimality-Theoretic explanation for singular agreement, specifically in the form *[X]'s + NP.pl*, in which phonological complexity constraints can outrank agreement constraints, motivating the observed agreement violations.

Keywords. there, noun-verb number agreement, phonological constraint.

1. Introduction. Noun-verb number agreement is widely regarded as a core grammatical constraint in English. However, naturalistic speech and corpus data reveal that *there's + NP.pl* patterns in which a singular verb form appears despite a plural postverbal noun phrase are common in standard forms of English (Meechan & Foley 1994; Crawford 2005; Walker 2007; Collins 2012), as shown in (1).

(1) a. There's a lot of people in this room.
b. It seems to me that there's multiple issues at play.

This phenomenon, often called singular agreement, non-agreement, non-concord, or non-prestige, has been extensively studied from a variety of linguistic perspectives. Corpus-based and sociolinguistic studies have shown that such constructions are both common and widely accepted in casual spoken English and typically lack the social stigma that are often associated with agreement errors (Collins 2012; Hilton 2016; Hilton 2018). Prior work in this area has focused almost exclusively on existential *there* and has generally concluded either that *there's* functions as a formulaic chunk that speakers retrieve and produce without computing number agreement in real time (Meechan & Foley 1994; Crawford 2005; Walker 2007) or that the clitic *'s* has become a lexical unit distinct from *is* without any number features (Krejci & Hilton 2017).

However, the extent to which similar agreement patterns occur with other elements has received comparatively little attention. The present study extends the empirical domain by examining the prevalence of constructions of the form *[X] + be*, where $X \in$ {*there, where, here, how*}. Using data from the Corpus of Contemporary American English sample texts (COCA), we analyze the

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distribution of contracted and uncontracted forms of *be* (*is, are, 's, 're*) across spoken and written registers and analyze rates of number disagreement. Our findings suggest that singular agreement is not unique to existential *there* but also occurs across similar constructions, with rates influenced by both register and phonological environment. We propose that speakers prefer singular agreement, particularly with the clitic *'s*, in contexts where plural agreement would incur a phonological penalty, specifically in forms such as *there're* or *where're* which involve an /r#r/ sequence. We argue that these patterns reflect the interaction of morphosyntactic agreement requirements with phonological-efficiency constraints in speech production. Building on prior syntactic and usage-based accounts, we propose an Optimality-Theoretic analysis in which phonological constraints against inefficient sequences can outrank agreement constraints, producing the observed variation.

2. Related Work. There has been extensive work on the topic of singular agreement in existential *there* + *be* (ETB) constructions. Much of the previous literature examines different factors that may influence the rate of singular agreement. Nearly all studies have found contraction of *is* to be one of the strongest predictors of singular agreement (Meechan & Foley 1994; Crawford 2005; Walker 2007). Crawford (2005) found that register (spoken versus written) also heavily influences singular agreement. Riordan (2007) surveyed a wide range of linguistic, processing, discourse, and social factors and found that age, discourse type, and determiner type of the postverbal NP were most strongly tied to singular agreement. Other work has suggested that plurality cue distance, or how far into the postverbal NP the first plurality marker appears, may also impact singular agreement rates (Melnick 2013). Taken together, this work shows that singular agreement is shaped by a combination of morphosyntactic, discourse, and processing-related factors, with contraction consistently emerging as one of the strongest predictors.

Hilton (2016, 2018) found through social perception experiments that while *there is + NP.pl* is strongly stigmatized, *there's + NP.pl* is judged much more favorably and approaches *there are + NP.pl* in acceptability. She argued that *there's + NP.pl* is distributionally distinct from *there is/was + NP.pl*, as the former is relatively common across speakers, particularly younger speakers, whereas the latter is rarer and generally used by less educated speakers. Similarly, Walker (2007) concluded that *there's* is functionally different from *there is/was* constructions, to the extent that he excluded it from his analysis of singular agreement altogether due to its distinct behavior. Taken together, this work shows that singular agreement with the contracted form *'s* behaves differently than most other types of number disagreement, including singular agreement with *is,* and that it seems to be entering the English grammar.

This prior research shows that the singular agreement in *there's + NP.pl* is inherently different from other forms of number disagreement and is not treated as an ungrammatical construction; instead, it has been popularized in colloquial speech. In the present study, we extend the investigation of *there's + NP.pl* to constructions of the form *[X] + be*, where $X \in$ {*there, where, here, how*} and further explore possible causes of the wide acceptability of noun-verb number disagreement in such constructions.

3. Methodology. This study draws on data from the Corpus of Contemporary American English (COCA) sample texts (Davies 2008). The COCA contains English language data from 1990 to

2019 and has eight registers: six written (Academic, Blog, Fiction, Magazine, Newspaper, and Web) and two spoken (TV/Movie and Spoken). The sample texts comprise approximately 8.9 million words and are randomly sampled from the full corpus, making them broadly representative of the full text.

We extracted occurrences of *there*, *where*, *here*, and *how* followed by forms of *be*, including the variants *[X] is*, *[X] are*, *[X]'s*, and *[X]'re*. Tokens in which the contracted form *'s* did not correspond to *is* (i.e. *there's been*) were excluded to ensure that all occurrences reflected number-marked forms of *be*. We then further restricted the dataset to tokens containing a postverbal noun phrase, excluding examples where the complement of *be* was an adjective phrase (i.e. *the guy over there's nice)* or a complementizer phrase (i.e. *the kicker here is that...)* as well as examples where the postverbal NP could not be determined (due to false starts or the boundaries of the sample texts). A total of 14,848 occurrences were included in the final dataset. The numbers of occurrences for each construction are shown in Table 1.

	Acad	Blog	Fic	Mag	News	Spok	TV&M	Web	Written	Spoken	Total
There is	586	1045	222	374	412	476	275	643	3282	751	4033
There are	347	786	163	384	377	576	219	563	2620	759	3415
There's	43	487	440	500	466	974	1344	334	2270	2318	4588
There's	0	0	4	0	0	0	5	0	4	5	9
Where is	3	26	23	3	10	23	141	16	81	164	245
Where are	5	11	46	11	5	29	202	15	93	231	324
Where's	0	6	56	6	8	13	285	10	86	298	384
Where're	0	0	1	0	0	0	2	0	1	2	3
Here is	6	62	17	27	25	54	32	38	175	86	261
Here are	5	58	0	45	23	12	8	50	181	20	201
Here's	1	117	36	53	24	146	170	77	308	316	624
Here're	0	0	0	0	0	0	0	0	0	0	0
How is	6	30	19	9	6	30	44	15	85	74	159
How are	5	31	17	8	9	64	182	16	86	246	332
How's	0	6	35	5	1	15	193	7	54	208	262
How're	0	0	1	0	0	0	7	0	1	7	8

Table 1: Number of occurrences of each target construction in COCA sample data

We calculated singular and plural contraction rates for each construction as the number of constructions containing the cliticized form of *be* divided by the total number of constructions. These tokens were then manually coded for number agreement, and singular agreement rates were calculated for each word as the number of constructions of the form *[X]'s + NP.pl* divided by the total number of *[X]'s* constructions. For constructions like *a group of people*, the semantic number (plural, since it implies multiple people) and syntactic number (singular, since *a group* is singular) of the postverbal NP differ. We tagged such constructions based on their semantic agreement; nevertheless, these constructions comprise less than 10% of the data, so the decision to tag based on semantic or syntactic agreement does not significantly impact the results.

4. Results. The singular and plural contraction rates are shown in Figures 1 and 2 respectively.

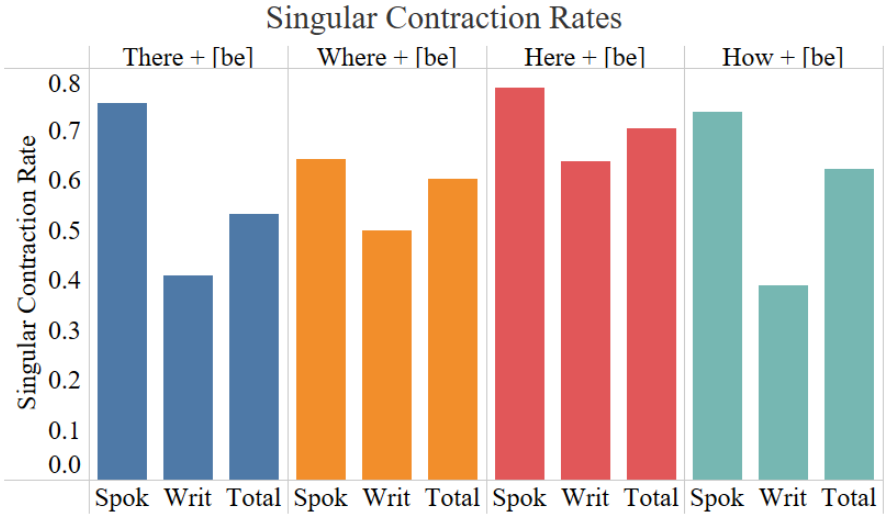

Figure 1: Singular contraction rates

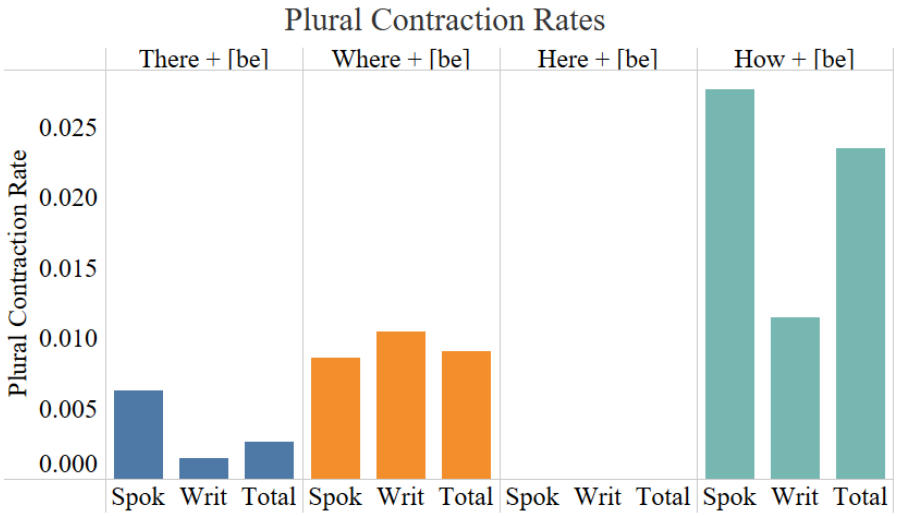

Figure 2: Plural contraction rates

Instances of singular agreement were found for all the target words as shown in (2) with varying degrees of prevalence.

(2) a. There's only four of us, so we might need some help.
b. And I wish that were true, but there's some cancers that are very aggressive.
c. There's better things to do than listen to something like that.
d. Where's your helmets? Which one's the quarterback?
e. Here's licenses from the cars outside.
f. Aw, how's my little buddies?

The singular agreement rates for the target words are shown in Figure 3.

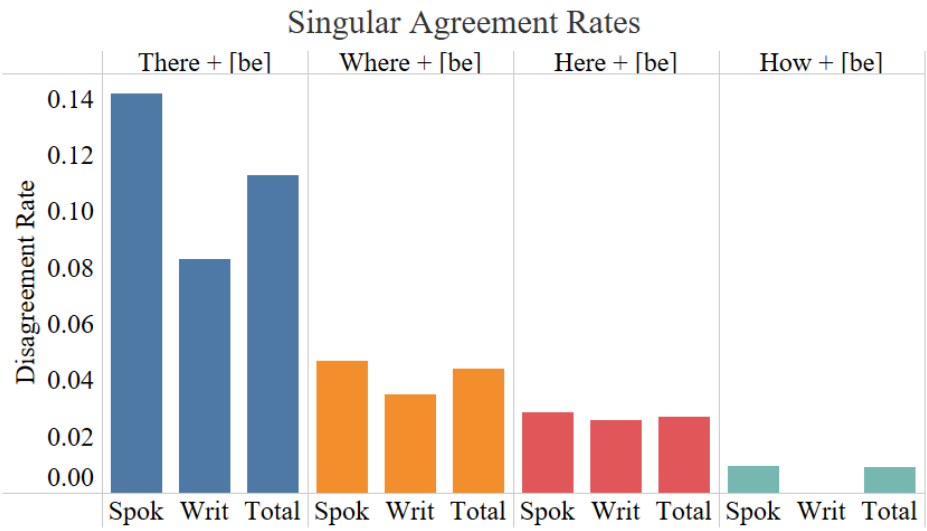

Figure 3: Singular agreement rates

These figures present the following patterns:

(a) Contraction rates are consistently higher in spoken registers than in written.
(b) Contraction of *'s* occurs at higher rates than contraction of *'re* across all constructions.
(c) Across all values of *X*, singular agreement rates are higher in spoken than in written registers, consistent with Crawford (2005).
(d) While singular contraction rates are fairly consistent across *there*, *where*, *here*, and *how*, plural contraction occurs at higher rates with how than with the other target words.
(e) Singular agreement rates are lowest with *how*.
(f) Singular agreement is significantly more common with *there* than with any of the other target words.

These patterns can be interpreted as follows. Patterns (a) and (b) align with the hypothesis that phonological efficiency motivates contraction: contraction is more frequent in spoken production contexts, and *'s*, which reduces syllable count, occurs more often than *'re*, which yields a smaller reduction in articulatory effort. By similar reasoning, pattern (c) suggests that singular agreement may also be influenced by phonological factors.

Patterns (d) and (e) indicate that *how* behaves differently from the other target words. We hypothesize that this difference arises because *how* does not end in /r/, and therefore forms such as *how're* do not contain the /r#r/ sequence found in *there're, where're,* and *here're*. If avoidance of the /r#r/ sequence contributes to the use of *'s* and increased rates of singular agreement for *there, where,* and *here*, then the absence of this sequence provides a possible explanation for why *how* shows higher rates of plural contraction and lower rates of singular agreement.

Pattern (f) is consistent with prior work and likely reflects the high frequency and entrenched status of existential *there*, suggesting that phonological factors interact with construction-specific usage patterns. Overall, the results suggest that both register and phonological form influence contraction and agreement patterns.

5. Discussion. The results provide support for the hypothesis that phonological efficiency plays a role in shaping both contraction and singular agreement in *[X] + be + NP.pl* constructions. Across all target words, contraction is more frequent in spoken registers, and the cliticized form *'s* is consistently preferred over *'re*. In addition, singular agreement is more frequent in spoken contexts and varies systematically across lexical items, suggesting that these patterns are not random but reflect underlying constraints on language production.

While singular agreement is most frequent with *there*, it also occurs with *where* and *here*, indicating that the phenomenon is not limited to existential constructions. This finding challenges accounts that treat *there's* as a fully fixed or lexicalized unit (Meechan & Foley 1994; Crawford 2005; Walker 2007), as these accounts do not predict similar patterns with other lexical items. Our results are partially compatible with proposals that *'s* has been reanalyzed as a reduced or form lacking number features (Krejci & Hilton 2017) and proposals that treat both *There was problems* and *There were problems* as economy-violating derivations and as two available spell-out choices in the grammar (Storment 2025). However, purely lexical-based or theoretical syntax-based accounts do not fully explain why agreement rates are still sensitive to factors such as register and the phonological shape of the construction.

We therefore propose an account grounded in Optimality Theory (OT), in which agreement patterns arise from the interaction of competing constraints. In particular, we propose constraints favoring phonological simplicity and efficiency, alongside a constraint enforcing number agreement:

- **AGREE**: Verb number marking must match the number of the postverbal noun phrase.
- **PHON_COMPLEXITY**: Minimize the amount of articulatory work needed and avoid phonologically complex sequences in production (e.g., /r#r/ clusters).
- **PHON_EFFICIENCY:** Minimize the number of syllables in an utterance.

Under this analysis, plural agreement with *are* or *'re* satisfies **AGREE** but may violate **PHON_COMPLEXITY** and **PHON_EFFICIENCY,** particularly in forms such as *there're, where're,* and *here're*, which may involve an /r#r/ sequence and multiple syllables. Singular contraction with *'s* violates **AGREE** when combined with a plural NP, but satisfies **PHON_COMPEXITY** and **PHON_EFFICIENCY** by avoiding complex consonant sequences and reducing the number of syllables. When **PHON_COMPLEXITY** and **PHON_EFFICIENCY** outrank **AGREE**, singular agreement with *[X]'s* emerges as the optimal output, as shown in Table 2. However, when AGREE outranks **PHON_COMPLEXITY** and **PHON_EFFICIENCY**, *[X] are* becomes the optimal output, as shown in Table 3.

There + [be] + reasons	**PHON_COMPLEXITY**	**PHON_EFFICIENCY**	**AGREE**
There are reasons		*	
There're reasons	*!		
There is reasons		*	*
☞ There's reasons			*

Table 2. OT tableau for contexts where phonological constraints outrank agreement

There + [be] + reasons	**AGREE**	**PHON_COMPLEXITY**	**PHON_EFFICIENCY**
☞ There are reasons			*
There're reasons		*	
There is reasons	*!		*
There's reasons	*!		

Table 3. OT tableau for contexts where agreement outranks phonological constraints

This framework accounts for several of the observed patterns. First, it explains why singular agreement is strongly associated with contraction: *'s* provides a clear phonological advantage, whereas full *is* does not. This also explains the relative rarity and low acceptability of *[X] is* + NP.pl, which violate agreement without providing an efficiency benefit. Additionally, the analysis accounts for the behavior of *how*, which shows higher rates of plural contraction and lower rates of singular agreement. Because *how* does not end in /r/, forms such as *how're* do not involve the /r#r/ sequence found in *there're, where're,* and *here're*, reducing the phonological penalty associated with plural marking. As a result, **PHON_COMPLEXITY** is less strongly violated, and plural agreement becomes more competitive.

This OT-based account aligns with a growing body of work on the principle of efficiency and how it may shape languages. Levshina and Moran (2021) defined efficiency as follows:

> *"A speaker/signer uses language efficiently if he or she spends not more effort than necessary in order to convey intended information, while at the same time maximizing processing ease for the recipient(s)."*

Gibson et al. (2019) further argued that efficiency is closely tied to predictability: in order to maximize processing ease for the recipients, speakers tend to reduce or shorten predictable material while preserving comprehensibility. In the observed constructions, the verb *be* is highly predictable and contributes relatively little new semantic content. The only semantic difference between the various forms of *be* is the number agreement, information which is also conveyed by the postverbal NP itself. As a result, speakers may use a reduced or alternate form of *be* without significantly impairing comprehension. Singular agreement can thus be understood as part of a broader tendency toward economy in predictable environments, in which reducing or removing information has little impact on the recipient's understanding.

At the same time, the higher rates of singular agreement with *there* suggest that construction-specific effects also play an important role. Existential *there* is highly frequent and entrenched in English, which may facilitate both contraction and agreement variation. This indicates that phonological efficiency interacts with usage-based factors, rather than fully replacing them, and helps explain why singular agreement is most robust in existential contexts but extends, to a lesser degree, to other constructions.

Several issues and open questions remain for future work. First, the distinction between syntactic and semantic number warrants further investigation, as mismatches between the two (i.e. *a group of people*) may influence both production and perception of agreement and make the notion of number agreement ambiguous. A brief, informal survey of native English speakers revealed that different collective nouns have different accepted agreement patterns. For example, speakers

unanimously rejected singular agreement with the construction *a couple of* + *NP.pl,* but some speakers accepted both singular and plural agreement for the construction *a group of* + *NP.pl,* as shown in (3).

(3) a. A group of students (goes/go) to class every day.
b. A group of students (has/have) visited campus.
c. A couple of students (*goes/go) to class every day.
d. A couple of students (*has/have) visited campus.

Second, the present study adopts a relatively naive syntactic analysis, treating all instances of *there, here, where,* and *how* uniformly, despite differences in their underlying structures (i.e. existential vs. locative *there*). A more fine-grained syntactic analysis may reveal additional conditioning factors.

Additionally, this study examines the prevalence of *[X]'s* + *NP.pl* structures but not speakers' perceptions of them. Further research should examine whether these structures with *where, here,* and *how* are accepted to the same degree that *there's* + *NP.pl* structures are.

Finally, the study is limited by the size and distribution of the dataset. Some constructions occur relatively infrequently in the COCA sample, reducing statistical power. Future work should examine larger corpora and incorporate more detailed statistical modeling to test the robustness of the proposed effects.

6. Conclusion Overall, this study demonstrates that singular agreement in *[X]* + *be* + *NP.pl* constructions is not restricted to existential *there*, but may reflect a broader, systematic pattern shaped by competing pressures in language production. Corpus evidence from COCA shows singular agreement extends across *there, where, here,* and *how* constructions, with rates conditioned by both register and phonological environment. The proposed Optimality-Theoretic analysis explains these patterns by formalizing the interaction between morphosyntactic and phonological constraints, showing that pressures for phonological efficiency and reduced articulatory complexity can outweigh agreement requirements, particularly in predictable contexts. This account not only explains the prevalence and acceptability of *[X]'s* + *NP.pl* construction but also situates singular agreement within a more general theory of linguistic economy, in which speakers balance grammatical well-formedness against efficiency and ease of production.

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