

The cognitive sociolinguistics of *hella*

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Abstract

The present study examines how social meaning potentially shapes processes of conventionalization and entrenchment. It is argued here that there are (at least) two forces exerting varying degrees of pressure on a speaker's mental representation of an utterance, which, in turn, potentially affects that utterance's conventionalization (and vice versa). The first force arises from cognitive demands to ease the storage and processing of language, while the second force is based on social demands to conform with a given community of practice or possibly avoid being associated with it. Depending on their interaction, they can either amplify, inhibit, or only marginally affect the use of a given utterance. Targeting the regionally stratified intensifier/quantifier *hella* (e.g., *this is hella cool*, *she walked hella miles*) as a test case for this claim, geospatial acceptability ratings, quantitative data from COCA and NOW (US), and qualitative web data is used to trace its diffusion and usualization in contemporary American English. As a widely recognized Bay Area and Northern Californian shibboleth, speakers from that region not only routinely exploit the pattern across the syntactic spectrum but also use it to perform acts of identity, thereby facilitating further repetition. By contrast, in Southern California, a neighboring community of practice, the social meaning of *hella* is constructed in a way so as to rather resent its use. Elsewhere, despite some diffusion, the pattern remains rare and largely unconventional, due to both the waning degree of social indexicality and lack of frequent exposure, its cognitive predisposition towards routinization notwithstanding. These findings tentatively suggest that entrenched social meaning at the individual level and conventionalized social meaning at the community level warrant more systematic integration into usage-based models seeking to provide socio-cognitively adequate accounts of language structure and variation.

1 Introduction

It was not until recently that cognitive linguistics started to embrace sociolinguistics to arrive at a more accurate description of linguistic phenomena (e.g.,

Geeraerts 2016; Kristiansen et al. 2021; Leclercq & Morin 2023, Schmid 2016).¹ Still, the progress towards a comprehensive, unified socio-cognitive theory of language is rather slow. This is somewhat surprising seeing that cognitive linguistics has long since (implicitly) acknowledged that language is both a complex-adaptive system and a socio-cultural construct (e.g., Schmid 2020; von Mengden & Coussé 2014). More pressingly, incorporating social aspects into cognitive-functional theories is not merely a nice-to-have but sometimes indispensable to explain actual usage patterns; see, for example, Morin et al. (2024) on the use of double modals on British social media.

By using the regionally stratified intensifier *hella* (as in *hella nice* or *hella people*) as a case in point, the aim of the present study is to provide further evidence in support of an approach that is generally mindful of both cognitive and sociolinguistic principles when it comes to the entrenchment and conventionality of utterances. The reason why *hella* might be a prime example is due to its status as both a contraction and a social index. While contractions like, for example, *I (d)unno*, *can't*, or *gonna* have often been discussed in the cognitive linguistics literature as evidence for chunking and reduction brought about by an increased usage intensity of sequential items (see e.g., Bybee 2002; Daugs 2021; Flach 2020a; Krug 1998; Lorenz 2013; Schneider 2014; to name a few), social meaning and indexicality have received considerable attention in third-wave sociolinguistics (see e.g., Agha 2007; Bucholtz & Hall 2005; Eckert 2016; Paulsen 2022; Peter 2020; Silverstein 2003; among others). *Hella* and its presumed etymons *hell of a* and *helluva* thus invite inquiries into how cognitive pressures shape linguistic structure (Trousedale 2012), whereas social pressures seem to play a crucial role in its distribution as a regional shibboleth of the Bay Area and Northern California (Bucholtz 2012; Bucholtz et al. 2007).

From a cognitive perspective, the reduction to *hella* would be expected across dialects, given the highly predictable and fully conventionalized full form *hell of a* (and related patterns) in American English in general (cf. Diessel 2019; Langacker 2008; Schmid 2020). Yet, *hella* appears to remain largely restricted to and associated with specific locales, which is likely a result of its socio-cultural indexicality. Starting from this premise, it is thus claimed here that there are (at least) two kinds of forces constantly exerting varying degrees of pressure on a speaker's mental representation of an utterance, which, in turn, may affect that utterance's conventionalization (and vice versa). The first force is based on cognitive demands to ease storage and processing of language. The second force is based on social demands to (consciously) conform with a given community of practice — 'This is how WE talk' — or (consciously) avoid being associated with it — 'This is how THEY talk' (cf. Schmid 2020: 144). What is crucial then is the question of how these forces interact with each other in boosting or inhibiting the usualization of *hella* (i.e., the tacit, mutual agreement on its communicative purpose) and, in turn, its entrenchment (i.e., the degree of its cognitive representation), and whether there is any kind of evidence for that in actual language use.

To address these issues, Section 2 of this paper will first discuss the morpho-syntactic properties of *hella* and weigh in on its rather controversial emergence.

¹ The wording might suggest that both cognitive linguistics and sociolinguistics each represent a homogenous whole, which, obviously, is not the case. This drastic oversimplification, however, is not expected to have much impact on the points made in this study, as no strand of either cognitive linguistics or sociolinguistics has fully integrated the other just yet.

According to Trousdale (2012), a binominal heritage where parts of *hell of a* were reanalyzed and eventually underwent reduction seems to be a plausible explanation. The present study, however, will argue that *hella* is rather the result of short-circuited analogical change. Following this, the relationship between cognitive and social forces regarding the entrenchment and conventionality of *hella* will be fleshed out in more detail, along with its effects on usage preferences across different regions. Section 3 provides empirical data on the potential diffusion and usualization of *hella* (as well as *hell of a* and *helluva*) from the *Corpus of Contemporary American English* (COCA; Davies 2008) and the *News on the Web Corpus* (NOW; Davies 2016). The final section evaluates the quantitative results against some qualitative evidence and seeks a synopsis on the socio-cognitive intricacies of *hella*-intensification/quantification.

2 Theoretical embedding

2.1 Properties of *hella*

Arguably, one of the most impressive properties of *hella* is its syntactic flexibility. As a quantifier/intensifier it serves similar functions to more conventional utterances like *many*, *a lot of*, *very*, or *really* with the number of its potential syntactic positions being roughly similar to those of *kind of*, *sort of*, *much* or *so* combined (McMahon 2024; Trousdale 2012; Waksler 2000). The examples in (1) to (11) illustrate this behavior.

- (1) These short stories are **hella** creepy and make for some great campfire yarns. [COCA; 2012; amazon.com]
- (2) It's got one of current TV's most entertaining ensembles, some **hella** clever writing. [NOW; 2010; TV Guide]
- (3) Jacob Black [...] has had a **hella** crush on her. [COCA, 2012; thestir.cafemom.com]
- (4) I've gone through **hella** emotions this week. [NOW; 2020; NPR]
- (5) Because transitioning to a level that "passes" in the gender binary takes **hella** money and resources. [NOW; 2020; buzzfeed.com]
- (6) Tyrion is finally not worried about sex for once, Jorah is **hella** fighting the clock, and Jon Snow is all brooding. [NOW; 2016; The Frisky]
- (7) The journalist **hella** doesn't know what he is writing about. [NOW; 2015; KQED]
- (8) [N]one of these rules and expectations are particularly unreasonable, they're just worded **hella** aggressively. [NOW; 2024; nypost.com]
- (9) That shit is **hella** more important than motherfuckers make it seem. [NOW; 2021; hotnewhiphop.com]
- (10) [But] he was definitely in your face and pushed his views **hella**. [NOW; 2020; Salon]
- (11) A: "That was the best night of my life."
B: "**Hella!** Me too." [Urban Dictionary, 2009]

Examples (1) and (2) show the use of *hella* as an adjective modifier, in both predicative and attributive contexts. Especially predicative uses as in (1) do not seem to be possible for *hell of (a)* or *helluva*. Indeed, only three potential cases could be retrieved; see the examples in (12) and (13).

- (12) Obviously Boston has those guys with (Jayson) Tatum and (Jaylen) Brown, and they would have been **hell of fun** to play with. [NOW; 2021; clutchpoints.com]
- (13) It's **helluva** hard, isn't it? [NOW; 2014; HuffingtonPost]
- (14) She became both healthier and curvier and **helluva** sexier. [NOW; 2020; GirlsAskGuys]

Example (12) can probably be dismissed as a false negative. The utterance comes from an interview with San José (CA) native Aaron Gordon and likely represents the transcribed version of what was actually produced as [ˈhɛlə ˌfʌn]. Whether the instances in (13) and (14) constitute conventional dialectal or rather idiolectal variants is not clear. What also sets *hella* apart from *hell of a* and *helluva* is its quantifier use, where it combines freely with singular and plural count nouns as well as mass nouns, see examples (3) to (5). The other two patterns do not co-occur with plural count nouns and only rarely with (idiomatic) mass nouns (e.g., *we were in a helluva hurry*). (6) and (7) illustrate the position of *hella* within and before verb phrases, where it syntactically behaves like *kind of* (or *kinda*) and functionally like *totally* or *so* (cf. Stange 2023). This also applies to its use before adverbs or quantifiers shown in (8) and (9). Next, although very rare, *hella* also occurs after direct objects (10) and as a free form in elliptical (affirmative) responses (11). Finally, Trousdale (2012) notes that some speakers may also conceptualize *hella* as a prefix analogous to *mega-* and *ultra-*, as is demonstrated by hyphenated instances, typically with attributive adjectives (e.g., *hella-adorable Instagram*, *hella-meaningless wave of American pop*). Further support for its perceived prefix status comes from a 2010 petition initiated by then UC Davis physics student Austin Sendek to have *hella* officially recognized as a prefix that indicates a measurement for units in the magnitude of 10^{27} (i.e., one octillion), as in *hellabytes* or *hellatons*.²

In terms of meaning, *hella* is in part comparable to more frequent, neutral alternatives like *very*, *extreme(ly)* or *a lot of*, that is, it also up-scales the quality or quantity of its collocates. However, its semantic potential is different, given its high degree of informality and its social function. As such, it has absorbed specific co(n)textual properties like ‘slang’ and ‘Northern California’ into its conceptual core and will probably evoke the corresponding associations upon encounter, irrespective of its contextualization. There also seems to be a higher degree of emotional involvement (e.g., ‘exasperation’ or ‘exuberance’) associated with *hella* than with its more conventional onomasiological competitors; see examples (2), (4), (5), (7), (9), and (11). It is conceivable that this amplifies the intensity and places *hella* closer towards the extreme end of the intensification/quantification scale. At least in the cases of (7) and (11), *hella* behaves more like a maximizer than a booster and is probably best paraphrased as ‘totally’ or ‘absolutely’ (cf. Quirk et al. 1985: 589–597). In sum, the syntactic and semantic range of *hella* is much broader than found in most intensifier/quantifiers in English.

² See <https://www.science.org/doi/10.1126/science.329.5990.373-a> (last accessed Aug 16, 2026).

2.2 A brief history

There seems to be consensus that *hella* originated in the Bay Area of Northern California around the late 1970s and early 1980s (Bucholtz 2012; Bucholtz et al. 2007; Schwarzer 2021; Zimmer 2020). Its exact etymology, on the other hand, is debated. Three proposals have thus far been put forth, linking *hella* to either *hellacious*, *hellish*, or *hell of a* (Boboc 2016; Trousdale 2012; OED s.v. *hella*). While similar in meaning, neither of the three fully aligns with *hella* in terms of function and syntactic flexibility, as discussed in the previous section. In addition, an assumed development from *hellacious* or *hellish* to *hella* would certainly defy any well-known reduction patterns in language (cf. Bybee 2015). *Hell of a*, although syntactically much more restricted than *hella*, thus seems a better candidate for a source, at least from a phonological perspective. Trousdale (2012) proposes four stages to explain its emergence, which are visualized in Figure 1.

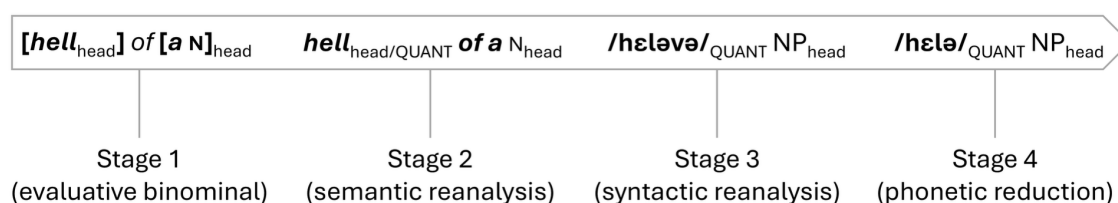


Figure 1. Potential stages in the development of *hella*; based on Trousdale (2012: 184–186)

The starting point are instances of a more general, emerging class of evaluative binominals that also includes *hell of a* (e.g., *hell of a problem*, *giant of a man*, *stinker of a question*; see Aarts 1998). In the second stage, this class adopts properties of related quantifiers (e.g., *lot of*, *bit of*) via analogical reasoning where parts of the pattern are semantically reanalyzed. This is followed by syntactic reanalysis and de-categorialization in stage three. Instead of having two head nouns separated by *of*, the preposition and the indefinite article of the second noun phrase become associated with the first noun to form a chunk that encodes the quantifier function and modifies the following noun phrase. Finally, this chunk undergoes further reduction in the last stage and from there onwards, *hella* as a quantifying pattern, is assumed to have developed an additional function as a degree modifier (Trousdale 2012: 185–186; cf. also Traugott 2007: 540–547). Given the semantic similarity between quantifiers and intensifiers (or more specifically, boosters) in denoting an ‘up-scaling’ of the element they modify, the line of reasoning seems plausible.

The present study, however, is somewhat skeptical about Trousdale’s (2012) proposal, specifically the evolution of *hella* from the third to the fourth stage. A crucial prerequisite for the phonetic reduction of sequential items is chunking and automatization of articulatory gestures, which is promoted by an increase in usage intensity (Bybee 2010: 20, 33–45; Diessel 2019: 15, 63–64; Langacker 2008: 60–73; Schmid 2020: 325–327; Schneider 2014: 243–244). We would thus expect that the quantifier *hell of a* + NP (e.g., *hell of a thing*, *hell of a game*) was sufficiently frequent at some point. In fact, the fluent, default pronunciation /hɛləvə/ in contemporary English and the conventional graphemic representation <helluva> attest to that and confirm stage three. But a further reduction

to *hella* in the final stage seems only probable if /hɛləvə/ + NP had continued to be used frequently and had passed its syntactic preferences on to *hella* (/hɛlə/). In view of the corpus data to be presented in Section 3, this has not likely materialized in this way, as *hella* shows a distinctive skew towards adjective intensification (e.g., *hella nice*, *hella funny*), most prominently in predicative contexts, in which *hell of (a)* and *helluva* seem unavailable in AmE altogether.

Due to this distributional mismatch, an alternative explanation to the *binominal heritage hypothesis* is offered here. Instead of assuming gradual erosion by means of ongoing repetition, *hella* may well have been modeled straightforwardly and more instantaneously after already conventionalized utterances through *short-circuited analogical change*. Two kinds of similarity play a crucial role in this context: (i) partial perceptual similarity and (ii) relational similarity (cf. Schmid 2020: 219–221, 229–234). Through (i), speakers can infer *hella* based on formally related intensifiers like *kinda* and *sorta*, which themselves are linked to their full forms *kind of (a)* and *sort of (a)*. In terms of function, however, *kinda* and *sorta* are compromisers not boosters let alone maximizers. These functions are conventionally performed by, for example, *very*, *so*, *extremely*, *absolutely*, or *completely*, which share semantic commonalities with a potential form *hella* that speakers can recognize by means of (ii). In combination, both types of similarities should facilitate the use of *hella*; see De Smet & Fischer (2017) on the role of ‘supporting constructions’ in analogical change. What remains is the actuation problem.

Since intensifiers like *very* or *completely* are among the default choices for boosting or maximizing an adjective’s degree, their high relative usage intensity is conducive to both their conventionalization and entrenchment. A plausible reason why speakers should deviate from using these canonical utterances nonetheless is *extravagance*, that is, the desire to be noticed by creating some sort of ‘special effect’ (Haspelmath 1999; Paetzke 2026). For example, extravagant utterances have been argued to signal a speaker’s strong emotional involvement (Ungerer & Hartmann 2020). This clearly makes a case for *hella*. Next to the examples discussed in Section 2.1, additional support for this claim comes from the derived euphemistic variant *hecka*, which mitigates the emotionally charged association with *hell*; see the example in (15) and (16).

- (15) But especially with this show: season 1 is **hecka** fun (pardon my French). [NOW; 2011; TV.com]
- (16) [S]o he had, like, this **hecka** big nerd map, and they all got locked in a closet back near the boilers where even the janitors don’t go. [COCA; 2012; gawker.com]

What may have also been perceived as extravagant about the innovative use of *hella* is the effect of coercion (Petré 2017), that is, the forced compatibility of *hella* with the already conventionalized intensification patterns *kinda* ADJ and *sorta* ADJ through analogical reasoning. Given their structural and semantic commonalities, *hella* ADJ could certainly be predicted (in terms of its meaning and function), but it was not expected (in terms of its probability of occurrence), which an attention-seeking speaker could have used to their advantage; compare Goldberg’s (2019) *‘Explain-me-this’* puzzle.³ Coupled with the previously

³ The puzzle is inter alia concerned with how competition and lack of exposure forces native English speakers to judge utterances like *‘Explain me this’* (instead of *Explain this to me*) rather unacceptable, despite them being structurally well-formed and semantically transparent.

mentioned emotional engagement, *hella* thus probably made for a salient utterance in its original context. In any case, regardless of which proposal on the emergence of *hella* is accepted, its regional stratification and social value are probably undisputed.

2.3 Cognitive linguistics meets sociolinguistics

Next, let us consider how sociolinguistic variables factor into a cognitive approach to language. Recently, Leclercq & Morin (2023, 2025) have made a plea to cognitive linguists, more specifically Construction Grammarians, to explicitly incorporate situational and socio-cultural aspects (e.g., register, region, gender, socio-economic class) as part of the meaning linked to a given utterance. They use social meaning as an additional dimension (next to semantics and pragmatics) to differentiate between variants of the same onomasiological space (i.e., formally different patterns that convey ‘more or less the same idea’ and therefore compete for selection). While this seems to be no different from mainstream sociolinguistics, which is built on the idea that the variants of a variable context, all else being equal, may display skewed distributions that are constrained by non-linguistic factors such as speakers’ social backgrounds (Meyerhoff 2019), their account places social meaning inside of constructions (Leclercq & Morin 2025: 39–49). That is to say, social factors are not considered to be external to the linguistic system but an integral part of it. But since constructions are traditionally viewed as both conventional form-meaning pairings and mental representations of speakers’ linguistic knowledge (e.g., Croft 2001; Goldberg 2006, 2019; Hilpert 2013; Tomasello 2003), a legitimate question is where to situate social meaning exactly — at the communal level or in the minds of speakers (cf. Schmid 2020: 11). The distinction may come across as moot. After all, individual knowledge and shared conventions need to align somehow for communication to be successful. However, if (social) meaning is to be grounded in experience (Bybee 2010; Leclercq & Morin 2025), it follows that there can hardly ever be a perfect correspondence between the socially shared linguistic system of a given speech community and the idiolinguistic systems of its respective members, as speakers’ unique experiences inevitably entail different degrees of variability across their individual grammars; see, for example, Dąbrowska (2015, 2016), Petré (2016), Schmid & Mantlik (2015), Schmid et al. (2021). In essence, this means that there are two levels of (social) meaning: (i) entrenched (social) meaning pertaining to the individual speaker and (ii) conventionalized (social) meaning pertaining to the speech community. Not only is it conceptually and methodologically warranted to uphold this distinction; see Schmid (2020) for a convincing, in-depth discussion on the dynamics of entrenchment and conventionalization. In the context of the present study, it explains how the social meaning of *hella* is differentially entrenched for both speakers within as well as outside its designated social space.

To elaborate, in ‘NorCal’ (i.e., the Bay Area and Northern California), a well-documented *hella*-region (Bucholz et al. 2007; Wood et al. 2020), *hella* conventionally indexes values tied to social conformity and social identity. As a consequence, it has a high licensing potential to be used frequently. If speakers from that community intend to signal their ‘belonging’, they can best achieve this by utilizing a pattern they have learned to associate with the relevant co(n)textual and community-related norms from frequently recurring situational contexts (cf.

Ellis 1996; Llamas et al. 2016; Rácz et al. 2017). In their case, cognitive and social forces work in lockstep to promote further repetition of *hella*, thereby facilitating both its conventionalization and entrenchment. Compare this with speakers from ‘SoCal’ (i.e., Southern California, especially Los Angeles and San Diego). As a neighboring community of practice, relatively frequent exposure to *hella* can be expected, due to language contact. Members from that community, however, may be (more) hesitant to produce the pattern, despite any possible cognitive motivations to reduce effort and ease processing. Their knowledge of *hella* also incorporates social meaning, but rather for the purpose of differentiation from NorCal speakers than self-identity. This knowledge cannot come about through frequent repetition of *hella*, but it has to come about through its more or less conscious avoidance. Here, cognitive and social forces compete with each other, with the latter winning out and keeping *hella* from becoming as conventionalized as in NorCal, albeit still being entrenched for many speakers (presumably). A third scenario is also conceivable. Speakers from elsewhere (i.e., geographically more distant communities of practice) may be aware of *hella* to some degree via diffusion (e.g., through internet communication, social media, pop-culture) but hold less strong social biases towards it. The ingroup-outgroup differentiation is of no immediate importance in this case. Social forces do not interfere significantly with cognitive forces, neither amplifying nor restraining them. Depending on the degree of conventionality of *hell of a* and *helluva* (as well as related quantifiers and intensifiers like *lotta* and *kinda*; see above) in these speech communities, an increase in frequency of repetition could promote the further conventionalization of *hella* therein. Based on these idealized scenarios, the following predictions can be made. Across contemporary AmE, *hella* will likely be less frequent than *hell of a* (including *helluva*), but some degree of diffusion is expected. Still, the conventionality of the pattern at large probably remains somewhat inhibited, that is, its usualization may not likely unfold in the same way as it does in NorCal indicated by, for example, a less flexible syntactic distribution or different syntactic preferences.

Initial compelling evidence in support of this claim comes from geo-tagged acceptability ratings data obtained by Wood et al. (2020).⁴ Their original data set can be used to show speakers’ judgments on *hella* across regions that align roughly with the three proclaimed communities of practice discussed in the previous paragraph. The information on region is based on Carver’s (1987) dialect classification and represents the respective primary childhood residence of the survey respondents. On a Likert-scale from 1–5 (1 = totally unacceptable, even in informal settings; 5 = totally acceptable), these respondents judged the use of *hella* in three different syntactic environments, that is, before an adjective (*That girl is hella smart.*), before a countable noun (*I spoke Spanish today for the first time in hella days.*), and after a verb (*This seat reclines hella!*) (Wood et al. 2020: 7, 91). Overall, the data set includes responses on *hella* from 1,389 participants (NorCal: 66, mean age: 35.9, 95% CI [32.3, 39.4]; SoCal: 81, mean age: 38.1, 95% CI [35.1, 41.0]; elsewhere: 1,242, mean age: 36.8, 95% CI [36.2, 37.5]) obtained between 2015 and 2019. At an average rating of 2.6 (*SD* = 1.4, median = 2), its general acceptability is quite low, which fits the proclaimed strong regional stratification of the pattern. To enable the comparison between region groups, all retrieved acceptability scores were first standardized via *z*-

⁴ The supplementary data from Wood et al. (2020) is available at <https://ling.auf.net/ling-buzz/005277> (last accessed Aug 16, 2026).

transformation and centered around 0. Values above 0 therefore indicate above-average acceptability, whereas values below 0 indicate below-average acceptability for the entire set. Following this, within each group, the mean z-transformed ratings for the respective syntactic environments were calculated. Figure 2 summarizes the data.

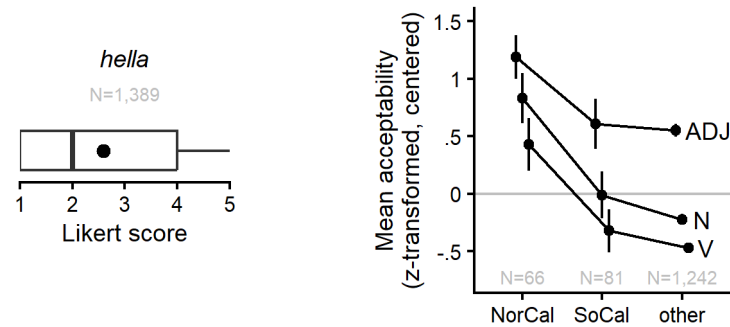


Figure 2. Acceptability ratings for *hella* in AmE, adapted from Wood et al. (2020); left panel: box plot showing the overall ratings distribution, the black dot represents the mean; right panel: regional acceptability across different syntactic environments (before ADJ: *That girl is hella smart.*; before N: *I spoke Spanish today for the first time in hella days.*; after V: *This seat reclines hella!*), z-transformed, centered mean values, error bars indicate 95% CIs

From the skewed box plot in the left panel, we can infer that the majority of the responses had a score of either 1 or 2. As for the right panel, the data illustrates both the obvious above-average acceptability of *hella* in NorCal, irrespective of its syntactic distribution and how it is judged clearly more acceptable in this region relative to SoCal and elsewhere. In fact, only the intensifier use is at an above-average level of acceptance outside of NorCal (with no noticeable difference between SoCal and elsewhere) but still considerably lower than within. Regarding the other two uses (i.e., before a noun and after a verb), we can see an even more notable drop in acceptability from left to right. In other words, the difference in acceptability of *hella* as, for example, an intensifier and *hella* as a quantifier is less pronounced in NorCal than in SoCal and other regions, which may cautiously suggest a less restrictive use of the pattern in its preferred locale.

Although the relationship between acceptability ratings and frequencies of use is quite controversial, specifically in the context of overall rare morphological, syntactic, and lexico-grammatical phenomena (Bader & Häussler 2010; Flach 2020b), it is doubtful that the scores do not correlate with performance data from corpora in the present case at all. The fact that the ranking in the syntactic distribution is consistent across groups lends weight to this assumption, unless we are dealing with a case of floor mismatch, that is, where all three syntactic patterns are in fact equally low in their frequency of occurrence in actual language use but diverge markedly in their acceptability (Bader & Häussler 2010: 316). This, however, seems unmotivated, given the differences in the ratings' magnitude between groups and the apparent cline from NorCal (as the region with the highest ratings) to SoCal and elsewhere. Additionally, the data in Figure 2 converge with the results from Bucholtz et al.'s (2007) perceptual dialectology study, in which *hella* was not only the most remarked-upon of all Californian slang terms by survey respondents in a map labeling task, thereby attesting to

the salience of this shibboleth, but it was also overwhelmingly associated with Northern California, with the region and its citizens being referred to as, for example, *Hella Land* and *the Hellas*, respectively (Bucholtz et al. 2007: 331, 343). Furthermore, based on geo-tagged Twitter data from the continental US introduced by Grieve et al. (2017), *San Francisco Chronicle* senior data editor Dan Kopf found that, depending on the spelling variant (e.g., *helluh*, *helllla*), *hella* was 13 to 30 times as frequent in tweets from the Bay Area than the rest of the US between 2013 and 2014.⁵

3 Corpus study

3.1 Data retrieval and annotation

The quantitative analysis in this paper is mainly based on an offline version of COCA.⁶ The latest release comprises 950 million words of contemporary American English spread evenly over eight genres — fictional texts (FIC), newspapers (NEWS), magazines (MAG), academic journals (ACAD), conversations (SPOK), TV shows and movies (TV/MOV), blogs (BLOG), and general web pages (WEB). Furthermore, the time span covered by the corpus ranges from 1990 to 2019. For every genre but BLOG and WEB, which are restricted to 2012, annual, size-balanced data is available, thus making inquiries into genre-specific, short term diachronic trends possible. To compensate for the lack of diachronic BLOG and WEB data in COCA, the US component of NOW will be consulted as well. While the respective text type (i.e., blogs/general vs news websites) may not necessarily be exactly the same, it will probably be sufficiently representative of internet content. As a monitoring corpus, NOW (US) has been constantly updated since its inception, targeting ~1,200 online news outlets for new articles daily. The cut-off for the present study is Dec 31, 2024, thus providing an additional 14-year time window of monthly online newspaper and magazine data (2010–2024; ~6.4 billion words; Davies 2016).

All instances of *hell of a(n)*, *helluva* (along with its different spelling variants; e.g., *hellofa*, *helllova*, and *hellava*), and *hella* were retrieved and checked for false positives. Especially *hella* required caution. While most lower-case spellings are unproblematic, the tagger typically identified any other spelling variant (e.g., *Hella*, *HELLA*) as the homonymous proper name. Consequently, cases like *Dr. Hella Hartmann* or *FORVIA HELLA* had to be excluded, whereas *Hella Fun*, *HELLA COOL* etc. were retained. To assess the syntactic distribution of each pattern, the data was subsequently annotated by extracting the following word and assigning its respective word class. This was done semi-automatically by relying on the POS-tags from the corpus followed by manual inspection and adjusting. Table 1 provides the annotation scheme for the syntactic categories.

⁵ See <https://goldenstatswarrior.substack.com/p/searching-for-bay-area-slang> (last accessed Aug 16, 2026).

⁶ Due to copyright restrictions in all commercially available offline versions of the corpora at english-corpora.org (5% of the data removed), the results were also checked against the online versions. While this step is usually unnecessary for frequent linguistic phenomena, rare utterances like *hella* require to maximize recall.

Table 1. Annotation scheme for the syntactic distribution of *hell of a*, *helluva*, and *hella* in COCA and NOW (US)

Category	Abbr.	Example
common nouns	N	You're one hell of a <u>candy-ass</u> . [COCA; 1990; Ain't No Way Back]
adjectives attributive	ADJ	It would be spectacular for Silverstein and the Trade Center, but it's a helluva <u>long</u> shot. [NOW; 2024; ny-post.com]
predicative		I was, in the parlance of the day, hella <u>rich</u> . [COCA; 2000; Money]
verbs	V	[B]ut she knows that she'll be hella <u>defeated</u> by Dany and her dragons and Dothraki. [COCA; 2017; Nerdist]
adverbs	ADV	Now that would be one helluva <u>astronomically</u> unlikely coincidence. [COCA; 2012; ...negroes.blogspot.com]
clauses, free (elliptical), Ø, after OBJ, ?	other	ONE OF US WILL HAVE ONE HELL OF AN <u>"I TOLD YOU SO"</u> WHEN THIS IS OVER, HUH? [COCA; 1999; Deterrence] How big is the sun? Hella . How far is it? Hella . [NOW; 2021; The Daily Californian]
metadiscourse	meta	I know <u>how they speak</u> . They have that word ' hella ' that is so Bay. [NOW; 2024, variety.com]
proper names	N _{prop}	# Fall Out Boy most recently co-headlined <u>THE HELLA MEGA TOUR</u> in July 2021 alongside Green Day & Weezer. [NOW; 2023; Icon Vs Icon] <u>Hella Cocktail Co.</u> is here to help casual drinkers turn out pro-level preparations with its line. [NOW; 2021; rollingstone.com] <u>Helluva Beats</u> cooked up the instrumentals for these latest tracks. [NOW; 2024; hotnewhiphop.com]

Obviously, 'meta' does not constitute an actual syntactic category. It was, however, deemed necessary to keep those instances separate from the others, as this allows us to tap into the degree of awareness and any evaluative judgements speakers hold towards these utterances, particularly those that are somewhat unusual or associated with specific regions, groups etc. Similarly, there are seemingly genuine instances of *hella* (and *helluva*) as part of a proper name, be it the label for a company, artist/band, or event, especially in the NOW (US) corpus. These are considered for qualitative purposes, but they will be excluded from any distributional analyses, since it is not clear how speakers would parse them.

After clean-up, 32,658 hits remained in the final data set. The corresponding summary is provided in Table 2.

Table 2. Overall occurrence of *hell of a*, *helluva*, and *hella* in COCA and NOW (US)

Pattern	COCA		NOW (US)		Σ
	<i>n</i>	%	<i>n</i>	%	
<i>hell of a</i>	7,820	88.7%	19,317	81.0%	
<i>helluva</i> (also <i>hellofa</i> , <i>hellova</i> , <i>hellava</i>)	748	8.5%	2,721	11.4%	
<i>hella</i>	252	2.9%	1,800	7.6%	
	Σ 8,820		23,838		32,658

Both the quantitative analysis and data visualization were implemented and created using R 4.5.2 (R Core Team 2025) with the following packages: {tidyverse} (Wickham et al. 2019), {ggpubr} (Kassambara & Erdey 2026), {ggtext} (Wilke & Wiernik (2022), {scales} (Wickham et al. 2025), {NSM3} (Schneider et al. 2025), {rsample} (Frick et al. 2026), and {PropCIs} (Scherer 2018).

3.2 Synchronic results

Let us first consider the data from COCA. From Table 2, it already became clear that *hell of a* is generally more frequent than *helluva* and *hella* at 10:1 and 31:1, respectively. If we consider COCA a reliable snapshot of contemporary, general AmE that serves as a rough proxy for average linguistic output (cf. Stefanowitsch & Flach 2017), *hell of a* and its contracted form *helluva* show a higher degree of conventionality than *hella*. Although expected, this is only a very rough first approximation, considering that conventionality is a multidimensional concept. In Section 2, it was mentioned that *hella* behaves differently from both *hell of a* and *helluva* in terms of its syntactic distribution. A descriptive overview thereof is thus in order; see Figure 3.

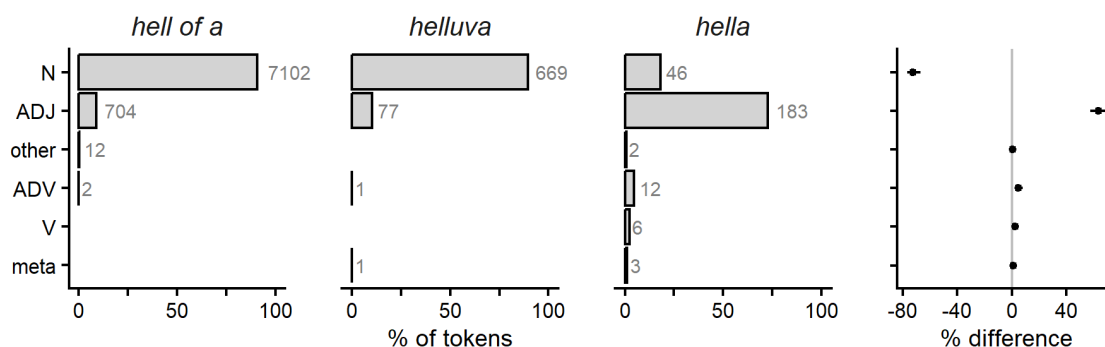


Figure 3. Syntactic distribution of *hell of a*, *helluva*, and *hella* in COCA; panels 1–3 (from left to right): relative token frequency in percentages, numbers in gray show the absolute tokens; panel 4: percentage difference between *hella* and *hell of a* (incl. *helluva*) with 95% CIs

The bar plots in Figure 3 show the percentage share of the syntactic categories for each pattern in panels 1–3. We can observe distinctive, almost Zipf-like distributional skews in the syntactic environments of *hell of a* and *helluva* on the one side and *hella* on the other. Whereas the former are preferably used before nouns (e.g., *hell of a job*, *helluva fight*), the latter mainly modifies adjectives (e.g., *hella funny*). Based on relative frequency, their respective prototypical uses therefore suggest that *hella*'s conformity profile (i.e., the conventionalized proportion of its attributes; cf. Schmid 2020: 87–97) is different from that of *hell of a* and *helluva*, not only on the social dimension, as discussed above, but also on the syntagmatic dimension. Since a complete reversal in syntactic preferences during the grammaticalization process seems unmotivated, this gives weight to the claim proposed in Section 2.2, namely that *hella* is not likely the result of gradual reduction from *helluva*. Additional support comes from the fact that the majority of adjectives modified by *hella* (81.4%) are used predicatively (e.g., *She is hella smart*), while the intensification in the cases of *hell of a* and *helluva* pertains exclusively to attributive adjectives (e.g., *hell of a lame excuse*, *helluva cool show*). Finally, the plots also confirm a slightly higher degree of syntactic flexibility in the use of *hella*, as all syntactic categories are represented with a weaker bias towards a specific one. The magnitude of the differences in syntactic distribution between *hella* and the combined frequencies of *hell of a* and *helluva* is summarized in panel 4. Values above 0 show a preference for *hella*, values below 0 indicate a preference for the other two patterns.

Next, the respective genre distributions will be discussed. Given the general colloquialness of each pattern, it can be expected that they will mainly occur in informal, speech-like genres and, conversely, be avoided in formal writing. Figure 4 plots the results.

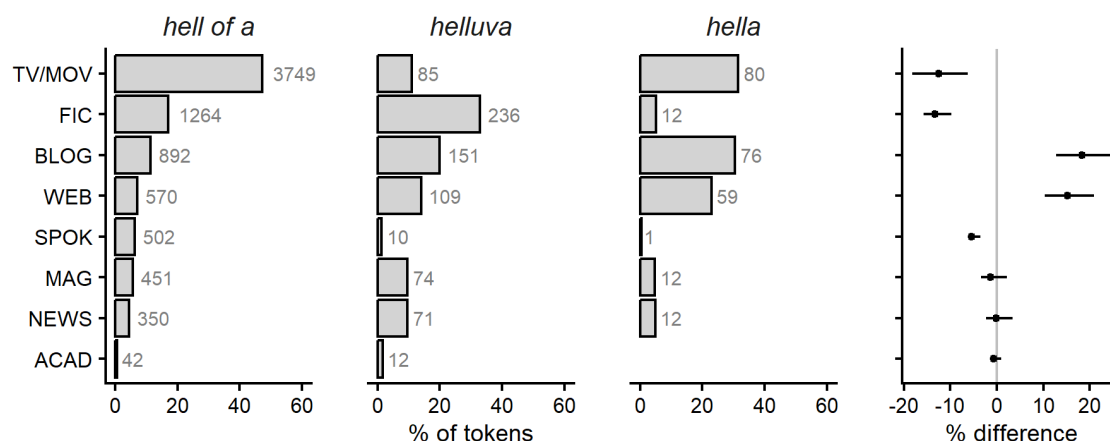


Figure 4. Genre distribution of *hell of a*, *helluva*, and *hella* in COCA; panels 1–3 (from left to right): relative normalized token frequency in percentages, numbers in grey show the absolute tokens; panel 4: percentage difference between *hella* and *hell of a* (incl. *helluva*) with 95% CIs

For the genre distribution, the bar plots are again ordered according to the highest relative frequency of occurrence of *hell of a*. The first and second panels will be dealt with first. For both *hell of a* and *helluva* the most preferred genres are TV/MOV, FIC, BLOG, and WEB, but in a different order. What may seem surprising is that *helluva* is relatively underrepresented in TV/MOV. After all, as a

written-to-be-spoken text type, movie and TV scripts typically try to emulate natural conversation. But I suspect there is no need to emphasize that a certain movie scene requires the reduced form, as the reduction happens anyway in online speech production.⁷ Since *hell of a* and *helluva* can be used interchangeably (see Figure 3), the more frequent spelling variant is then simply used out of convention (cf. also the discourse marker *I don't know* vs *I dunno*). This is different in blogs or fictional texts, which are not meant to be spoken aloud but rather to create a conversation-like exchange or put the reader in the position to imagine conversational discourse. As for the overall rare use of both *hell of a* and *helluva* in SPOK, the genre consists of transcribed unscripted conversation on nationwide broadcast TV and radio. Possible FCC regulations, prescriptive norms, and speakers' accommodation due to self-consciousness when on the air explain the relatively low frequencies of these patterns in this case. With regard to the third panel, the plot shows that *hella* is comparatively rare (FIC, SPOK, MAG, NEWS) or even non-existent (ACAD) in the 'traditional' genres from COCA as opposed to BLOG, WEB, and TV/MOV when considered in isolation. Its relative pervasiveness in blogs and web-based content combined at over 53% underscore these genres' more general acceptance of non-standard or vernacular varieties and dialect (self-)representation.⁸ The percentage difference in panel 4 reinforces this observation, but, importantly, the plot also brings out the relative dispreference of *hella* over *hell of a* and *helluva* in the other speech-like genres of TV/MOV, FIC, and SPOK, at least from a synchronic perspective.

To sum up, despite the discrepancies in the genre data between *hell of a* and *helluva* discussed above, there seems to be no linguistically motivated reason to assume actual differences in their respective conformity profiles. Their identical syntactic preferences reinforce this impression, which is why the data for both patterns will be aggregated for the following analyses. *Hella*, on the other hand, shows quite a different behavior both in terms of its syntagmatic and co(n)textual conformity. Along with its overall low frequency of occurrence in contemporary AmE, this may tentatively support its status as a shibboleth.

3.3 Diachronic results

Given the 30-year time span covered by COCA, a synchronic analysis likely conceals (some of) the possible underlying variation. This merits an analysis of *hell of a* (incl. *helluva*) and *hella* from a diachronic perspective. Developments in the usage intensity of these patterns can provide insights into their diffusion and thus changes in their degree of conventionality. Figure 5 provides a coarse-grained overview of their respective overall diachronic frequency profiles.

⁷ This is not generally the case for all reduced forms; for example, *going to* v does not default to *gonna* v in rapid speech (Lorenz 2013). *Helluva*, on the other hand, is a genuine contraction rather than an emancipated item like *hella*.

⁸ It has to be kept in mind that, unlike all other genres in COCA, the BLOG/WEB data only covers 2012, which rightfully makes the comparison open to criticism, as this genre imbalance potentially affects the 'practical significance' of the results. Yet, if anything, the skew would have probably even been more severe if additional temporal data points had been available. For the diachronic analysis in Section 3.3, both genres were excluded.

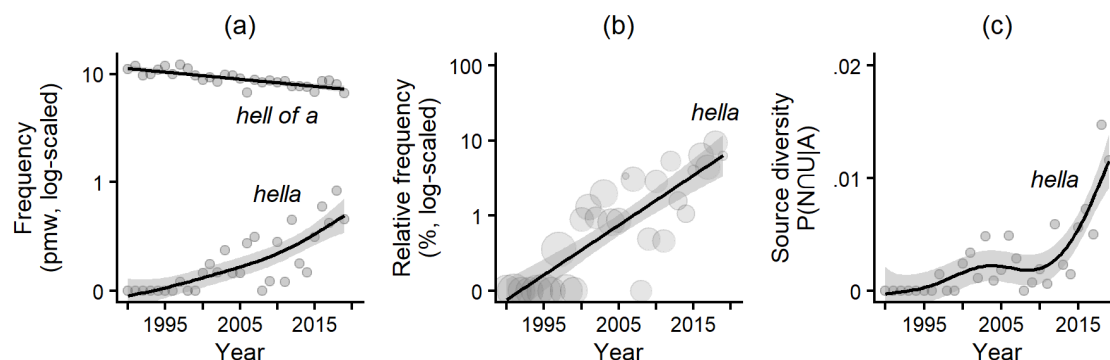


Figure 5. Development of *hella* and *hell of a* (incl. *helluva*) in COCA; panel (a): annual pseudo $\log_{10}$ -scaled frequencies per million words⁹; panel (b): annual pseudo $\log_{10}$ -scaled relative frequency of *hella* in percent, dot size proportional to the annual sum total of both patterns per million words (range: 7.0–12.2); panel (c): annual source diversity of *hella* (cumulative new source type frequency by 2019: 88)

To facilitate the comparison between both patterns by (i) specifically avoiding *hella* being completely compressed to a rather indistinguishable trajectory at the bottom of the plot (due to its low frequency compared to *hell of a*) and (ii) prioritizing relative over absolute growth, the annual frequencies per million words in panel (a) have been pseudo $\log_{10}$ -scaled. That is, the tick labels on the y-axis show the actual frequency values, but the data is pseudo-logged. Instead of a regular log scale, the y-axis transitions from log to linear values around the origin and can thus handle the sampling zeros (i.e., unattested tokens) in the data, which would have otherwise resulted in negative infinity (for a general discussion on log-scaling linguistic data, see Schützler 2023).¹⁰ The scaling makes the slopes directly comparable and gives more weight to changes at the lower end of the frequency spectrum so that the resolution allows us to spot the upwards trend in the use of *hella* more easily. By contrast, the more conventional pattern *hell of a* records a decline in its frequency of use, but at a smaller rate of change. It is important to acknowledge though that *hella* still occurs less than once over a stretch of a million words. Panel (b) contextualizes its development against *hell of a* on the percentage scale (also pseudo $\log_{10}$ -scaled), with the trend line showing that its share records a log-linear (i.e., exponential) relative increase but remains below 10%. Finally, the plot in panel (c) shows an increase in the annual source diversity of *hella* as the probability P of encountering a previously unseen source N containing the utterance U out of all sources in a given year A . The idea behind this assessment is that higher source diversity can be seen as both a cause and an effect of diffusion.¹¹ With source as a proxy for speaker, a higher source diversity would indicate a more varied group of speakers using the utterance, while potentially reaching further groups of speakers. This may, in effect,

⁹ All trend lines are based on generalized additive models with thin-plate regression splines selected as smoothers. For interpretability, a shrinkage version was used in some cases, or the basis dimension was adjusted to control the ‘wiggleness’ of the slopes.

¹⁰ The pseudo log-scaling was performed using the function `pseudo_log_trans()` from the `{scales}` package. To create equidistant tick marks (including 0), the log-to-linear transition was set according to the log base of 10.

¹¹ Note that the increase in source diversity is not an artefact of the corpus, as there is no detectable correlation between changes in the size of COCA and number of source types ($\tau = .09$, 95% CI [-.16, .36]).

contribute to that utterance's spread across different communities of practice.¹² At around 1.5% at its peak in 2018, the source diversity of *hella* is quite low in terms of overall magnitude, just like its frequency of occurrence. But since diffusion does not require a strict frequency threshold by definition, only that an utterance has been successfully carried over from one usage event to another, the prediction that *hella* may be spreading in AmE (at least to some extent) seems to be confirmed for the time being, as per Figure 5.

To uncover any trends underlying these more global developments, changes in syntactic and genre distribution, which were already considered synchronically, will be dealt with diachronically in the following. Since SYNTACTIC DISTRIBUTION and GENRE are treated as categorical variables, the general dispersion of their respective levels across time can provide insights into the potentially changing conformity profiles of the patterns at hand. Put differently, it can be tested whether *hella* becomes syntactically more flexible and/or diffuses to other genres. Both could be seen as indicators of increasing degrees of conventionality. The logic is as follows. If a pattern becomes more readily available in further syntactic environments, it simply has a higher potential to be licensed more regularly in actual language use. Also, if a pattern spreads to other genres, it can reach more speakers, which also contributes to its potential to be used more often. The measure selected to assess the dispersion in these cases is normalized entropy H_{norm} (Daug 2022: 228, 232–233; Gries 2021: 95–96; Shannon & Weaver 1949).¹³ As a measure of *evenness* (i.e., the balance of a categorical variable's underlying levels within a given year; cf. Sönning 2025), it takes values between 0 and 1, where 0 represents a maximally skewed (i.e., all tokens are confined to one level) and 1 a perfectly even distribution (i.e., every level has the same number of tokens). Applied to the present case, values closer to 0 indicate syntactic restrictions or genre biases, whereas values closer to 1 are indicative of more flexibility or ubiquity.

Two problems need to be addressed regarding H_{norm} : first, sampling zeros for all levels of a given variable at one (or more) temporal data point. Equating such cases with 0 would mean that they cannot be differentiated from a maximally skewed distribution, which is undesirable. Since H_{norm} simply ignores this issue, *pervasiveness* (i.e., how widely the different uses are spread across time; cf. Sönning 2025) is considered here as well, albeit very crudely by the absence or presence of a syntactic environment per year. Second, as a measure of general dispersion, H_{norm} should ideally be accompanied by the actual frequencies of the respective levels for each variable so as to make sense of the internal make-up of the distribution. The results of the analysis, as applied to each pattern's syntactic environments (excluding all 'meta' instances) are captured in Figure 6 and Figure 7.

¹² It could be objected that the sources in COCA containing *hella* may mainly be local in the first place — geographically or representationally — and what is observed here is simply an increase in its usualization within NorCal rather than its subtle diffusion elsewhere. While *hella* is indeed most frequent in two sources that are unambiguously associated with the Bay Area (still accounting for only less than 4% of all *hella* tokens in COCA), namely the daily newspaper *San Francisco Chronicle* and the 2018 movie *Blindspotting*, their impact on source diversity is leveled, as the measure is based on new source types, which can only be registered once in the corpus.

¹³ For a given categorical variable with k levels and their observed probabilities p_i with $i = \{1, 2, \dots, k\}$, normalized entropy is defined as

$$H_{\text{norm}} = - \frac{\sum_{i=1}^k p_i \times \log_2 p_i}{\log_2 k}.$$

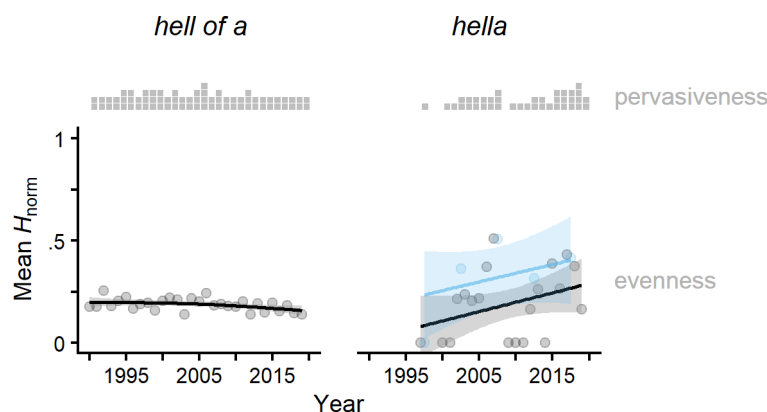


Figure 6. Changes in the dispersion of syntactic environments of *hell of a* (incl. *helluva*) and *hella* in COCA; evenness measured by mean normalized entropy H_{norm} , based on 1,000 bootstrap samples; black line: annual changes, blue line: changes over 5-year intervals; marginal stacked histograms at the top show annual pervasiveness (range: 0–5)

From the rather low H_{norm} -values in Figure 6, we learn that both patterns remain relatively skewed throughout the time span covered by COCA. Although a moderate upwards trend in the case of *hella* can be detected, the extremely wide confidence band around the trend line entails a considerable amount of uncertainty regarding both its development and syntactic flexibility. Therefore, the mean H_{norm} -values over 5-year intervals (e.g., 1995–1999, 2000–2004; blue trend line) are plotted as well to mitigate the data sparsity and provide a more robust assessment of *hella*'s actual trend. Although the values are still quite low, the periodical data allows us to distinguish *hella* from *hell of a* somewhat more easily. The marginal histograms at the top of each panel reveal that *hella*'s syntactic pervasiveness is less pronounced than that of *hell of a*, that is, its uses are relatively more scattered across time, but they seem to become more widely spread between 2015 and 2019. Note that low degrees of pervasiveness are expected for rare phenomena. Nonetheless, they help put the evenness scores into perspective.

Figure 7 provides information on the actual trends in the use of each pattern in different syntactic environments, but with all marginal uses (e.g., V, ADV, free) collapsed into the residual category 'other' to avoid unnecessary plot clutter.

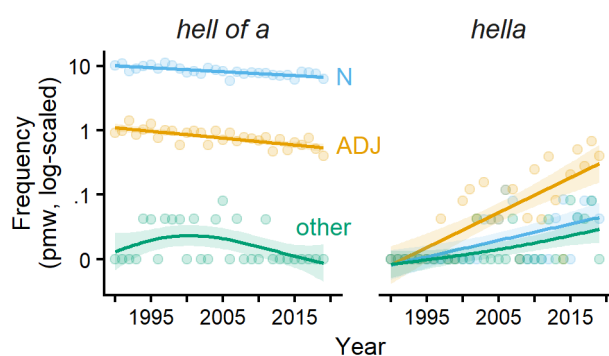


Figure 7. Development of *hell of a* (incl. *helluva*) and *hella* in different syntactic environments (N vs ADJ vs other) in COCA; annual pseudo $\log_{10}$ -scaled frequencies per million words

The respective developments confirm that the distributional skew towards noun modification for *hell of a* and adjective modification for *hella* clearly persists. The overall decline in the frequency of use of *hell of a* (and *helluva*) (cf. Figure 5) affects the categories ADJ and ‘other’ disproportionately, hence the decrease in mean H_{norm} after 2000. By contrast, the increase in usage frequency of *hella* is disproportionately driven by its intensifier use (which is also the first occurrence in the corpus), hence the rather moderate increase in mean H_{norm} . While this seems to be at odds with the proclaimed flexibility *hella* is typically associated with, we must keep in mind that COCA is representative of contemporary, general AmE rather than NorCal dialect specifically. The results may thus confirm the prediction made above on how *hella* is expected to be differentially conventionalized (i.e., less flexible) outside of its ‘original’ community of practice. Admittedly, this conclusion is tentative but certainly aligns with the geospatial acceptability ratings from Lee (2025) and Wood et al. (2020), who show that *hella* as an adjective intensifier not only seems to spread from Northern California to other regions among younger speakers but receives higher scores than the other possible uses (e.g., quantification, verb modification; see also Section 2.3).

H_{norm} can also be utilized to assess the evenness in the use of *hell of a* and *hella* across different situational contexts in AmE, but again this needs to be checked against the respective genre-specific distributions; see Figure 8 and Figure 9.

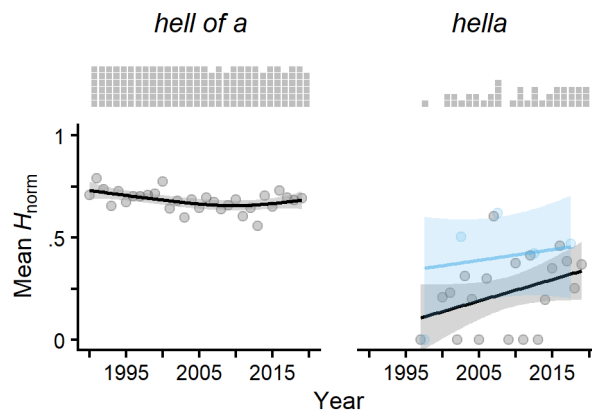


Figure 8. Annual changes in genre dispersion *hell of a* (incl. *helluva*) and *hella* in COCA; evenness measured by mean normalized entropy H_{norm} , based on 1,000 bootstrap samples; black line: annual changes, blue line: changes over 5-year intervals; marginal stacked histograms at the top show annual pervasiveness (range: 0–6)

The first obvious results to be taken away from Figure 8 is that *hell of a*, as the more conventional of the two patterns, is much more evenly distributed and more pervasive across genres from a diachronic perspective. By comparison, the genre distribution of *hella* becomes potentially more even at a very moderate rate, but the pattern remains quite biased and limited in genre pervasiveness. Again, given its generally rare frequency of occurrence, this is indeed not unexpected, but its nature as a slang term probably also contributes to that.

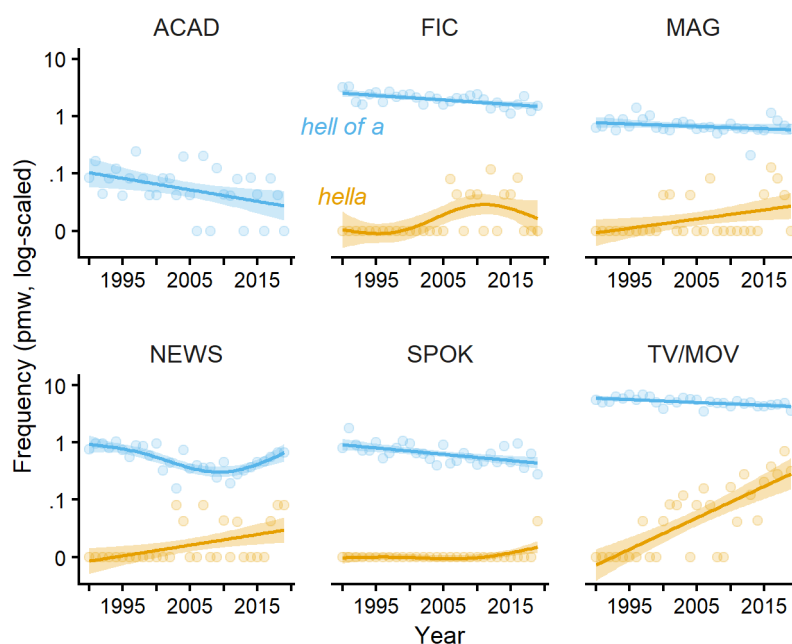


Figure 9. Genre-specific developments in the use of *hell of a* (incl. *helluva*) and *hella* in COCA; annual pseudo $\log_{10}$ -scaled frequencies per million words

Figure 9 breaks down the genre-specific trends for both patterns. Aside from the revival in NEWS after 2010, the overall decline in the use of *hell of a* can be observed in all genres. This suggests stability in its conformity profile but also a gradual decline in its general degree of conventionality. In contrast, *hella* shows some degree of genre diffusion, mainly brought about by an increase in its usage frequency in TV/MOV and MAG and NEWS. These are also the genres where *hella* first occurred in the corpus, which may not be overly surprising, given their susceptibility to linguistic innovations (cf. e.g., Hundt & Mair 1999; Tagliamonte & Roberts 2005). The still cotextually limited use of the pattern, however, provides further circumstantial evidence for its ongoing shibboleth status.

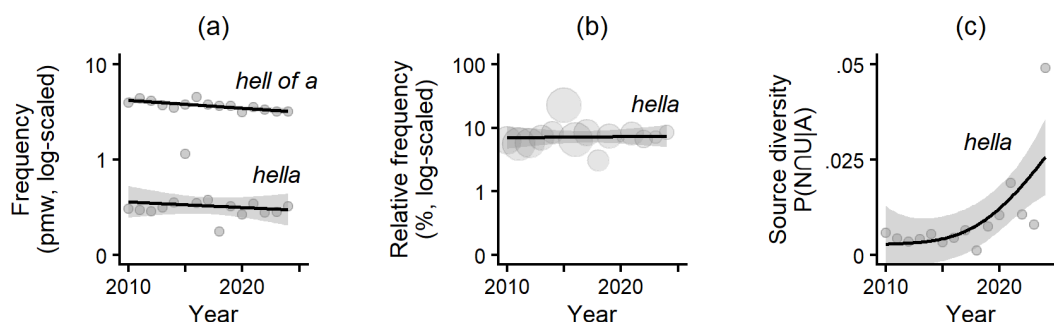


Figure 10. Development of *hella* and *hell of a* (incl. *helluva*) in NOW (US); panel (a): annual pseudo $\log_{10}$ -scaled frequencies per million words; panel (b): annual pseudo $\log_{10}$ -scaled relative frequency of *hella* in percent, dot size proportional to the monthly sum total of both patterns per million words (range: 3.4–4.9); panel (c): source diversity of *hella* (cumulative new source type frequency by 2024: 546)

Finally, since the synchronic data revealed a bias in the use of *hella* in BLOG and WEB, there is reason to believe that the diffusion of *hella* will come to the fore more prominently in online content, represented in this case by data from NOW (US). Interestingly, the results shown in Figure 10 lessen expectations. According to panel (a), *hell of a* records a decrease in its frequency of use, while *hella* remains almost stable, which explains the weakly positive slope in panel (b). Its source diversity in panel (c), on the other hand, shows a clear increase after 2018, but this did evidently not translate into an increase in usage intensity.¹⁴ From these developments, it has to be concluded that the prediction regarding a more notable diffusion of *hella* in online media discourse cannot be confirmed. Before this is discussed further, let us take a look at the syntactic dispersion and development of the syntactic categories underlying the general frequency distribution of both patterns in Figure 11.

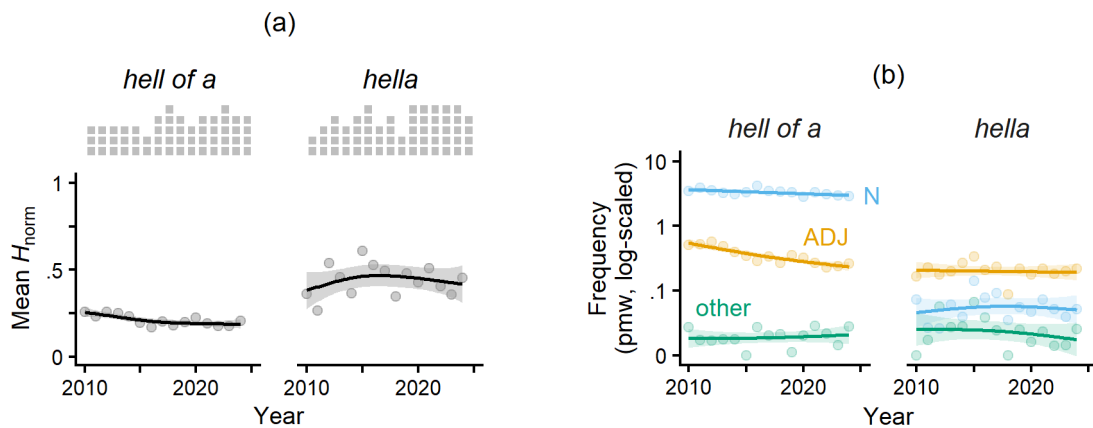


Figure 11. Syntactic development of *hell of a* (incl. *helluva*) and *hella* in NOW (US); panel (a): annual changes in the dispersion of syntactic categories, evenness measured by mean normalized entropy H_{norm} , based on 1,000 bootstrap samples, marginal stacked histograms at the top show pervasiveness (range: 0–5); panel (b): changes across different syntactic environments (N vs ADJ vs other), annual pseudo log₁₀-scaled frequencies per million words

Starting with panel (a), the magnitude of the entropy values for *hell of a* are comparable to those in COCA, with the pattern showing a decrease, which appears to be the result of its premodifier function (i.e., before ADJ) declining at a much more considerable rate than its remaining uses; see panel (b). At the same time, there is left skew observable in the histogram, suggesting an increasing pervasiveness after 2015. A similar trend, but slightly more pronounced, can be identified for *hella*. Furthermore, unlike the COCA data, we can now confidently claim that the different functions of *hella* are more evenly distributed than in the case of *hell of a*. Still, the H_{norm} values, though slightly higher than in COCA, are quite low and there is no clear trend emerging from the data, which panel (b) also corroborates, as *hella* retains a strong preference for adjective modification. It follows that, just like the general trends in NOW (US) contest the assumption

¹⁴ Again, as in COCA, no correlation can be detected between changes in the size of NOW (US) and changes in the number of source types ($\tau = .03$, 95% CI [-.56, .62]), which suggests that the increase in the source diversity of *hella* is genuine.

about diffusion, there are no obvious signs of changes in the usualization of *hella* either, at least not regarding its syntagmatic conformity.

It is possible that, as an online analogue to newspapers, the corpus might simply be more formal than BLOG and WEB, which is why the genre skew identified in COCA is not mirrored in NOW (US) in the form of a more impressive frequency profile. Alternatively, *hella* may have (temporarily) reached a point of saturation regarding its diffusion and usualization in general AmE, hence the lack of any notable trends in the NOW (US) data. In other words, what we see in NOW (US) is how *hella* is currently conventionalized in general AmE. Considering the long(er)-term diachronic development of *hella* shown in COCA, there had to be some diffusion towards its rather stable state in NOW (US), but it lies outside the corpus' limits. Regardless, the observation that the pattern's syntagmatic conformity remains somewhat restricted, while some genre diffusion has been underway in contemporary AmE, seems legitimate. The final section will evaluate these results against the claims laid down in Section 2.3.

4 Discussion and outlook: *hella* entrenched and *hella* (un)conventional

The analysis conducted here yielded four major results. First, rather than having undergone gradual coalescence from *hell of a*, the distributional properties of *hella* in present-day English rather point to change by analogy to supporting patterns like *kinda* and *sorta*. Second, *hella*'s conformity profile differs from that of *hell of a* (and *helluva*) most notably on the syntagmatic dimension. As an 'all-purpose' modifier, *hella* is potentially available in all syntactic configurations the other patterns are used in and, crucially, beyond. But unlike *hell of a* and *helluva*, which are (almost) exclusively used as quantifiers, it is the intensifier function of *hella* that stands out in contemporary AmE, especially in predicative contexts. Third, like *hell of a*, *hella* is most frequently used in TV/MOV. However, in relative terms, it shows a distinctive preference for BLOG and WEB data, which suggests that their conformity profiles also differ on the co(n)textual dimension. Furthermore, *hella* is diffusing in contemporary AmE, becoming more frequent globally but also spreading to other genres. Fourth, and arguably most importantly, at less than one occurrence per million words and less than one-tenth the frequency of *hell of a* (incl. *helluva*) across all communicative settings, *hella* remains extremely rare overall. This observation, in addition to their respective syntagmatic preferences (quantification vs intensification), suggests that there is no serious replacement underway, which brings us back to the actuation problem alluded to in Section 2.2.

Despite *hella*'s flexibility, phonetic and cognitive predispositions, and potential communicative purpose, the pattern does not propagate at a substantial rate. The only explanation I can think of is that *hella* may still be too specific to NorCal dialect, serving as an index of social identity in and of that community, which prevents it from becoming more readily usualized in contemporary AmE. That is, by using *hella*, a NorCal speaker can not only convey all the functions of more conventional alternatives (e.g., *hell of a*, *very*, *really*, *absolutely*) but also (consciously) show their belonging to that community. There is, in fact, ample qualitative evidence that the social meaning of *hella* is fully enregistered in the NorCal community. For instance, we find numerous local businesses with *hella* as part of their name listed in the larger Bay Area (e.g., *Hella Tea*, *Hella Bagels*, *Hella*

Coastal Brewing Company, Hella Baked with AyePe, Hella Bay Clothing, Hella Plants Market). *Hella* has also become commodified by being written on clothes and posters that reference existing brands, songs, events, political movements etc. (e.g., *Hella Kitty, Straight Hella Oakland, Oakland Hella-Ween Costume Run, Hella Occupy San Francisco*). Also, in NOW (US), *hella* is mentioned 83 times as part of metadiscourse from 25 different sources, whereas *hell of a* and *helluva* are mentioned only 15 times (of which nine tokens occur in discussions about *hella*). In addition, reflexive comments about *hella* both positive and negative on, for example, *reddit* or *Urban Dictionary* point to the pattern being recognized as a social shibboleth from NorCal; see the examples in (17)–(20) with evaluative remarks underlined.

- (17) It has its roots deep in the soul [...] of Northern California. It means something along the lines of “very” or “really,” but it’s much more than that. It’s not just a word, but a statement of cultural identification, of a long-standing bond of trust and respect [...] the word can only be understood by absorption [...] It’s a symbol. It’s a way of life. Hella. [*Urban Dictionary*; 2008]
- (18) Yeah it’s straight up my favorite word, it makes my Bay ass feel superior to the rest of the country that we have all these usages for the word and they can only use it as “very”. [*reddit*; Jun 4, 2020]
- (19) Just don’t use it. Im [sic!] from SD [San Diego, CA] and its [sic!] really annoying to us. It’s like you hearing a guy say “Hey bra, wanna hit the dunes later this weekend?” it’s your version of uber-bro. I personally don’t care that much, but I know a great deal of people that cringe upon hearing it. [*reddit*; Aug 12, 2012]
- (20) 1. A North California word meaning “so” or “really”. 2. A word that in it’s [sic!] most annoying form means “a lot of”. 3. The most annoying word in the history of the civilized world. 4. A world [sic!] that will, sadly and pathetically, start to involuntarily flow from your mouth if you go to school in North Cali for more than a month. [*Urban Dictionary*; 2005]

Such metadiscursive activities are not uncommon for salient linguistic features that index a region, a social group, or specific socio-cultural values. Pending wider recognition, they can promote the persistence of the underlying indexical link between *hella* and NorCal or Bay Area identity; compare Paulsen (2022: 107) or Squires (2014) on the inverse relationship between indexicality and diffusion. Admittedly, the examples in (17)–(20) constitute rather extreme cases on a continuum, but they highlight the importance of social meaning, which is claimed here to be (at least partly) responsible for how *hella* is progressing in contemporary AmE.

As was suggested in Section 2.3, depending on the community of practice, social meaning can either amplify, prevent, or only marginally affect the use of a given utterance. Supposing the examples above reflect the NorCal-SoCal divide (cf. Bucholtz et al. 2007: 343), speakers from, for example, Oakland use *hella* on top of its other conventionalized communicative purposes to perform acts of identity as in (17) and (18), which results in a relative ‘overuse’ of the pattern in their community (i.e., amplification). By contrast, speakers from, for example, San Diego, where *hella* might (deliberately) not or only to a lesser degree be part of the conventional linguistic repertoire, may rather perform acts of resentment

against its use, as in (19) and (20) (i.e., prevention). In either case, these performances are only possible because of the high degree of social indexicality of *hella*, which, I suspect, is waning outside of these communities of practice. That is, speakers from elsewhere can neither rely on heavily entrenched routines (as in NorCal) nor heavily entrenched social meaning associated with *hella* (be it elevation, as in NorCal, or stigmatization, as in SoCal). Still, they may be(come) aware of the pattern via, for example, language contact, increasing mobility, social media, or pop-culture but arguably not its full scope. The corpus data in Section 3 seem to confirm just that. While some degree of diffusion could be detected, the conventionality of the pattern in contemporary, general AmE remains very low. It was shown that mainly the intensifier use of *hella* is spreading, while other functions (e.g., quantification) remain underrepresented. This is sensible insofar that *hella* ADJ, especially in predicative contexts, is innovative and serves a communicative function that is not conventionally fulfilled by *hell of a* (incl. *helluva*). One might argue that the same should apply to NorCal speakers as well. But seeing that *hella* also serves as a means to express social identity in their community of practice, the pattern is exploited more liberally across the syntactic spectrum. Since speakers from geographically more distant communities of practice are not expected to have any strong social biases towards *hella* (= low social indexicality), it may not become as prominent as in NorCal but also not overly stigmatized. That is not to say that, following its diffusion, the pattern cannot develop additional social meaning, only that this meaning will not likely be same as in NorCal. In fact, because the pattern does not seem to be overly strongly tied to a specific demographic (e.g., socio-economic status, ethnicity, gender) but a region (namely the Bay Area) that is nationwide considered among the most diverse metropolitan areas (cf. <https://census.bayareametro.gov/>), *hella* should have the potential to become more conventionalized and indexically linked to socially relevant information elsewhere, possibly by adopters performing acts of identity associated with certain socio-cultural values rather than locales.

As a final note, a brief disclaimer is in order that both relativizes the results and points towards avenues for further research. This study has drawn on explicit claims about the distribution of *hella* in NorCal, particularly regarding its pervasiveness and syntactic flexibility, and it has measured the present findings against these assumptions. However, this comparison is not supported by self-obtained quantitative dialectal performance data, as no systematically coded regional data is available in the corpora consulted. While such information may theoretically be embedded in the data, there is no reliable, principled method for extracting it.¹⁵ This limitation should not be taken to suggest that the premise regarding NorCal as a *hella*-hotspot is unfounded. On the contrary, the body of previous research referenced throughout this study consistently corroborates this claim, as does the acceptability data shown and discussed in Section 2.3, but it needs to be treated with caution. At the same time, COCA and NOW (US) are designed to represent contemporary, general AmE. Such representativeness is

¹⁵ An anonymous reviewer suggested extracting metainformation on the origin of TV show or movie characters from the corresponding sub-section in COCA to trace the potential diffusion of *hella* beyond NorCal more rigorously. This approach, although intriguing, runs into the problem that any data point from the TV/MOV genre conflates three distinct agents: (i) the character, (ii) the actor, and (iii) the writer(s). It may simply be impossible to discern whom the utterance must be attributed to. On top of that, at the very least, background checks on the actor and the writer(s) would be required, especially the latter of which might not be achievable in every case.

itself not uncontroversial, given that AmE is not one homogenous community of practice but rather (an idealization of) a conventionalized variety averaged over all English-speaking communities in the U.S. This issue may be mitigated if we assume that potential extreme, regional outliers (like NorCal and SoCal) are statistically leveled out by the sheer size of the corpora, yielding a more or less balanced overview of *hella* in contemporary AmE. Yet without more representative quantitative dialectal performance data, the conclusions drawn here remain necessarily circumstantial. In the spirit of Grieve et al. (2017), future research should therefore aim to build larger-scale, geo-tagged datasets from various social media platforms to trace the diffusion of *hella* more systematically. Such data would be valuable not only from a register perspective (e.g., higher degrees of informality, involvement), but also for investigating the social indexicality of *hella* from acts of identity performed in online discourse, which, in turn, would offer further insights into the role of social meaning in socio-cognitive models of language.

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Conflict of interest statement

The author declares none.

Data availability statement

The data and analysis scripts for the present paper are available at osf.io/gxvqj.

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