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Tapping into German Adjective Variation: A Variationist Sociolinguistic Approach

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Following the Labovian paradigm, the present study uses variationist quantitative methods to examine the linguistic and social factors influencing adjective choices in German. By focusing on adjectives of positive evaluation (such as *cool* 'cool', *toll*/*geil* 'great'), an analysis of over 3,000 tokens reveals that the choice of using one adjective over a competing counterpart is structured systematically. This choice is heavily constrained by the social factor *age*, with *gender* also influencing variation to varying degrees. The syntactic position of the adjective also conditions use, with some adjectives favoring predicative position and others favoring attributive or stand-alone position. Comparisons across apparent time, as well as with previous research, indicate that the semantic field of positive evaluation is a perpetually changing locus of variation. By applying variationist methods to German data, the present study illustrates how German lexis can index social meaning, paving the way for future research on German lexical variation. More broadly speaking, this study also contributes to ongoing variationist sociolinguistic research on German language variation and change.*

Keywords: variationist sociolinguistics, German language, adjectives, positive evaluation, social correlates, lexical variation

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1. Introduction.

Geography has long been considered an explanatory factor conditioning linguistic variation in the German language.[1] Consequently, traditional synchronic and diachronic accounts of German are often cast in diatopic terms (Mitzka & Schmitt 1951, Schirmunski 1962, Bach 1969, Besch et al. 1982, Wiesinger 1989, Eichhoff 2011, Russ 2013, Elmentaler & Rosenberg 2015, König et al. 2015). However, while geography is undoubtedly an important conditioning factor, the influence of social factors has often been downplayed and neglected in work on German. In contrast to the multiple strands of variationist work on English (Labov 1966, Poplack & Tagliamonte 1989, Ito & Tagliamonte 2003, Tagliamonte & D'Arcy 2004, 2007, Tagliamonte 2008, Tagliamonte et al. 2010, Tagliamonte & Brooke 2014, Jankowski & Tagliamonte 2019), few studies on German have employed variationist methods to examine the internal and external conditioning factors of variation.[2] In one of the few German variationist sociolinguistic studies to date, Stratton (2020a) examined the use of German intensifiers and found that the decision to intensify an adjective was influenced by the social factors *gender* and *age*. Building upon this research, the present study explores further the role of linguistic and social constraints in German variation and change by probing an understudied variable domain, namely, adjective variation.

To describe something as positive, speakers of German have a variety of adjectives at their disposal. They can describe something as *geil* 'great', *krass* 'great', *top* 'top', *fett* 'great', *toll* 'great', *super* 'super', *derbe* 'great', *spitze* 'super', *prima* 'great', *klasse* 'class', *fantastisch* 'fantastic', *mega* 'great', *abgefahren* 'wicked', *ausgezeichnet* 'excellent', *bombig* 'super', *cool* 'cool', *nice* 'nice', *gediegen* 'topnotch', *sauber* 'cool', *dufte* 'great', *kultig* 'cool', *genial* 'great', *knorke* 'smashing',

[1] In the present study, *German* refers to *Standarddeutsch* 'Modern Standard German' as opposed to *Nieder-* or *Oberdeutsch* 'Low/Upper German'. However, the label *standard* may be misleading since the data may contain innovative language that has not yet been codified.

[2] Lüdeling (2017) provides an accessible overview of "das variationistische Modell" [the variationist approach] for a German-speaking audience.

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schnafte 'great', *astrein* 'awesome', among many others.[3] According to Vogt et al. (2016:90–119), *feinst*/*gril*/*premium*/*schneidig* 'great', *fresh*/*chefig*/*sheesh* 'cool', *cheedo* 'super cool', and *lit* 'lit' are recent incoming variants to the field of positive evaluation.[4] At the level of discourse, these variants can be comparable in meaning, that is, they can all be used to express positive evaluation. In variationist sociolinguistics, such a class of variants can constitute a linguistic variable, or as Labov (1972:188) puts it, "two or more ways of saying the same thing." The notion that linguistic variation is not random, haphazard, or free, but instead is structured systematically across linguistic, social, and stylistic dimensions is referred to as "orderly heterogeneity" (Weinreich et al. 1968:100) and is the major premise of the variationist framework.

Since recent variationist work on English adjective variation found *age* to be a conditioning factor (Tagliamonte & Brooke 2014, Stratton 2020b, Tagliamonte & Pabst 2020), the present study turns to German adjective variation, specifically to the eclectic class of adjectives of positive evaluation, to examine whether similar structured variability can be observed within this semantic field. Doing so provides insight into the factors that shape the choice to use one German adjective over its synonymously equivalent counterparts. Some examples of the adjectives of positive evaluation that are of interest in this study are provided in 1.

(1) a. ohne scheiß ich finde es fett, ich find es voll gut
without shit I find it fat (lit.) I find it full good
'no joke, I think it's great, I think it's really good'
(FOLK_S_00054)

[3] For a more comprehensive, but somewhat outdated list of adjectives of positive evaluation, see Schenker 1977:302–303.

[4] Positive evaluation can also be expressed through nominal predicates such as *der Film war der Hammer* 'the movie was great' lit. 'the hammer', *der Film war erste Sahne* 'the movie was great' lit. 'first cream', and *der Film war Bombe* 'the movie was great' lit. 'the bomb'. The nominal predicate *krasse Pasta* 'cool beans' lit. 'cool pasta' is also reported as an incoming variant among younger speakers (Vogt et al. 2016:90).

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b. salzige Butter ist geil
‘salty Butter is great (lit. ‘horny’)’ (FOLK_S_00947)

c. wir starten diese Stunde mit einem tollen Lied
we start this hour with a great song
‘we’re starting this class with a great song’ (FOLK_S_00395)

d. ich finde die Idee so klasse
‘I find the idea so great (lit. ‘class’)’ (FOLK_S_00720)

e. ...ein super Zoo mit ganz vielen Flamingos
a super Zoo with quite many flamingos
‘…a great zoo with quite a lot of flamingos’
(FOLK_S_00027)

f. das ist echt abgefahren
‘that is really cool’ (FOLK_S_00992)

g. Schwarzmeer ist schon echt cool
Black Sea is indeed real cool
‘the Black Sea is really cool’ (FOLK_S_00048)

Using the 1.6 million-word *Forschungs- und Lehrkorpus Gesprochenes Deutsch* (*FOLK*; Research and Teaching Corpus of Spoken German), the present study addresses two research questions. First, what is the distribution of adjectives of positive evaluation in FOLK? Answering this question involves collecting all synonymously equivalent variants that are part of this semantic field and examining the contexts in which they appear. Second, is the use of certain adjectives sensitive to social factors such as *gender* and *age*? Answering this question involves employing multivariate regression analyses to examine whether or not there are any statistically significant correlates of variation. This study therefore contributes to the body of literature on the social factors that influence or constrain variable choices in the German language, and, moreover, it contributes more globally to crosslinguistic research on adjective variation.

The structure of the paper is as follows. An overview of the characteristics of German adjectives is provided in section 2.1, followed in section 2.2 by a review of the relevant internal and external factors that

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may affect adjective choice. The notion of a semantic field as it relates to positive evaluation is outlined in section 2.3. The methodology is subsequently delineated in section 3, which consists of information about the corpus and the coding process. The results are reported in section 4, divided into the distributional analysis in section 4.1 and the multivariate analysis in section 4.2. The results are then discussed in section 5, followed by concluding remarks and future directions in section 6.

2. Literature Review.

2.1. Adjectives.

Durrell (2003:124) defines adjectives as "words which describe, modify, or qualify nouns and pronouns." On a syntactic level, adjectives can be described according to their position within an adjective phrase (that is, attributive, predicative, stand-alone/bare), as shown in 2. Attributive adjectives appear before the head noun and are adjuncts, predicative adjectives appear after verbs but not before nouns, and stand-alone adjectives appear by themselves as their own independent discourse unit. Because German is an inflected language, attributive adjectives are inflected for case, number, and gender (Durrell 2003:125, Trost 2006:390). However, note that some German adjectives, such as those that end in open syllables, typically do not permit declension (for example, *ein rosa/lila Kleid* 'a red/purple dress'), but in certain varieties consonant epenthesis can repair this constraint (as in *ein rosanes/lilanes Kleid* 'a red/purple dress'). Some adjectives of positive evaluation, particularly newer ones, do not permit declension because they are either loanwords (such as *top—eine top Idee* 'a great idea' lit. 'a top idea', *prima—ein prima Interview* 'a great interview' lit. 'a prime/first interview', and *super—eine super Idee* 'a great idea' lit. 'a super idea') or they are derived from other parts of speech, such as nouns (as in *Klasse* 'class' > *klasse—ein klasse Film* 'a great movie') and have thus not yet fully adapted to the German adjective system.[5]

(2) a.	es	war	so	ein **cooler**	Sommer	Attributive
	'it	was	such	a cool	summer'	(FOLK_S_00184)

[5] For more information on attributive environments that block declension, see Durrell 2003:131.

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b. der ist total **krass** Predicative
the.MASC is totally great
'he is totally great' (FOLK_S_00736)

c. … voll **geil** Stand-alone
'… so great' (FOLK_S_00762)

According to Biber et al. (1999:506), on a semantic level, adjectives fall into two main categories: "descriptors" (such as *gut* 'good', *schlecht* 'bad') and "classifiers" (such as *finanziell* 'financial'), where the latter are typically considered nongradable (for example, **sehr finanziell* 'very financial' and **finanzieller* 'financialer'). While a number of semantic taxonomies have been proposed to describe adjectives both in terms of their denotation (Leisi 1975:39–44, Dixon 1977, Hundsnurscher & Splett 1982, Löffelad 1989, Weinrich 1993:522) and their scalar properties (Kennedy & McNally 2005, Paradis 2008), these contrastive semantic classifications are not of particular relevance in the present study given the exclusive focus on adjectives that are synonymous at the level of discourse. Nevertheless, the syntactic properties serve as a point of departure as a potential internal factor that may condition adjective variability.

2.2. Internal and External Correlates.

A cornerstone of the variationist approach is the consideration of internal and external factors. Even outside of the field of variationist sociolinguistics, it is easy to recognize that lexical variation can correlate with the external factor *geography*. A speaker who utters *Schlachter* 'butcher' likely comes from northern Germany, a speaker uttering *Fleischer* 'butcher' likely comes from East Germany, a speaker uttering *Metzger* 'butcher' likely comes from West or Southern Germany, and a speaker uttering *Fleischhacker* 'butcher' likely comes from Southeast Germany (König et al. 2015:196). With respect to the adjectives of positive evaluation, the use of the adjective *leiwand* 'great' is thought to index an Austrian variety of German (Duden, *leiwand*), *pfundig* 'great' is thought to index a Bavarian variety of German, and the use of *bäumig*, *fätzig*, and *herzig* 'great' is thought to index Swiss varieties of German (Meyer 1989, Christen 2003). Style is also a factor that can affect adjective choice. Adjectives such as *herrlich* 'marvelous', *hervorragend*

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'outstanding', and *exzellent* 'excellent' may appear in more formal contexts, whereas *geil* 'great' and *krass* 'cool' may appear in more informal contexts (Dalmas et al. 2015:13).

However, in addition to the explanatory factors *geography* and *style*, lexical variation can also correlate with other external factors such as *age*. Tagliamonte & Pabst (2020) found that in Toronto English, adjectives such as *terrific* are favored by older speakers, whereas adjectives such as *cool* are favored by younger speakers. In contrast, they found that in York English, *lovely* was the variant favored by older speakers. In an earlier study on English adjective variation, Tagliamonte & Brooke (2014) examined adjectives that form part of the semantic field *strangeness* (for example, *weird*, *strange*, *bizarre*, *peculiar*, *uncanny*, etc.) and found that some choices correlated descriptively with age, but not necessarily with gender. For instance, speakers under the age of 60 preferred the adjective *weird*, whereas speakers over the age of 60 preferred adjectives such as *strange*, but being male or female did not necessarily affect the choice. Similar results were found in Stratton 2020b where *strange* was favored by older speakers and *weird* was used by younger speakers.

In a perceptual study on German adjective variation, Schenker (1977) found that speakers' perception of adjectives changed according to the age of the speaker. On the one hand, younger speakers considered *astrein* 'great' (from *ast* 'branch' + *rein* 'pure') to be one of the more fashionable adjectives at the time to express positive evaluation, whereas older speakers considered adjectives such as *dufte* 'great' and *klasse* 'class' to be more fashionable (p. 286). The gender of the speaker was also thought to have an influence on the adjectives used by speakers in the 1970s, with *geil* 'great' considered to be the most popular variant among men, and *irrsinnig*/*poppig* 'great' considered to be the more favored variants among women (p. 289). Labov's Principles of Linguistic Change states that women generally lead in linguistic change (Labov 2001:274–275), a hypothesis that can be tested on the present dataset of German adjectives of positive evaluation. According to this hypothesis, it is to be expected that women favor incoming or novel variants more frequently than men.

Two decades ago, using anecdotal evidence, Androutsopoulos (2001:1) reported having noticed the transition from *fabelhaft* 'fabulous' to *fett* 'cool', with *fabelhaft* used by older cohorts and *fett* used by

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younger cohorts. The only study to date to quantitatively examine the use of German adjectives of positive evaluation using vernacular speech production was Androutsopoulos 1998. As part of his dissertation on "Jugendsprache" [youth language], Androutsopoulos reported 259 tokens of "wertpositiven Adjektive" [adjectives of positive evaluation]. Of the sample that was reported, *geil* was the most frequently used adjective among adolescent speakers, followed by *genial* 'great', *kultig* 'cool', *korrekt* 'great', and *cool* 'cool'. Although, to date, no research has examined the use of German adjectives within a variationist sociolinguistic framework, the data in the studies mentioned above serve as a useful point of comparison. Apparent time analyses can also be used to make inferences about recent developments within the semantic field of positive evaluation by using generational differences as a proxy for language change.

Although the use of incoming variants such as *geil*, *cool*, and *krass* have come under criticism for "verarmen" [impoverishing] the German language (Kilian 2001:308), objections to using these adjectives are likely a natural response to language change in progress. For instance, the current use of *geil* 'great' lit. 'horny' to denote positive evaluation is still met with some contention despite having been used this way for decades (see Schenker 1977). Because the word once meant *sexuell erregt* 'sexually excited', many object to its current use as an adjective stripped of the sexual denotation that can describe inanimate objects, as in *ein geiles Moped* 'a great moped' lit. 'a horny moped' or *eine geile Wohnung* 'a great apartment' lit. 'a horny apartment' (Keller & Kirschbaum 2003:123–124).[6] However, it is evident that in its use as an adjective of positive evaluation, the meaning of *horny* has been bleached semantically. At the level of discourse, that is, how it is used by the speakers in the vernacular within a particular context, *geiler Abend* lit. 'a horny evening' can be synonymous with *toller Abend* 'great evening'. One of the goals of the present study is to determine quantitatively which variants are used across the board by the majority of German speakers,

[6] It should be noted, however, that the New High German meaning of *geschlechtlich erregt* 'sexually aroused' was not the first meaning of *geil*, as it formerly meant *üppig* 'redundant' in Middle High German (Herkunftswörterbuch 2013).

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and which variants are constrained by conditioning factors of variation. While gender and age differences have been considered in a number of studies on German variation (see, among others, Gal 1978, Schlobinski 1987, Lippi-Green 1989, Keim 2007, Wiese 2012, Stratton 2018), studies using variationist quantitative methods to examine German variation and change are scant (see, however, Lüdeling et al. 2011, Beaman 2020, Stratton 2020a), and, to date, no studies have employed variationist methods to examine German adjective variation.

2.3. The Linguistic Variable.

By operationalizing the notion of a semantic field as the linguistic variable, Tagliamonte & Brooke (2014) and subsequently Stratton (2020b) and Tagliamonte & Pabst (2020) circumscribed the variable context to adjectives that were comparable in meaning (for example, adjectives of *strangeness*: *weird*, *bizarre*, *strange* and adjectives of positive evaluation: *cool*, *awesome*, *terrific*, *dandy*). While using a semantic field as the linguistic variable was novel for the study of adjectives, "early work in variationist approaches explored the possibility of using semantic fields as a foundation for circumscribing the variable context for semantic and lexical variables" (Tagliamonte 2016a:169). For instance, Sankoff et al. (1978) analyzed the semantic field of verbs that mean 'to dwell' in Canadian French and found that their use was constrained by a number of social factors such as education and socioeconomic status. This led to their notion of "weak complementarity" (Sankoff & Thibault 1981), which Tagliamonte & Brooke (2014:12) explain as "the idea that linguistic variables can be identified by their distribution across the speech community rather than by the fact that they mean exactly the same thing."

While some have long argued that every word has its own unique meaning (Heilingbrunner 1858:25, Reichel & Gottsched 1900:38), in following the principle of weak complementarity the adjectives included in the present study serve the same function, that is, they are used to express positive evaluation.[7] Although the term *semantic field* can represent more than just synonymy, such as the relationship of hyponymy, in the present study the semantic field of positive evaluation

[7] For more information on what constitutes functional equivalency and near-synonymy in variationist sociolinguistics, see Tagliamonte 2006:70–98.

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is defined by general synonymy (for example, *etwas war cool*/*geil*/*krass*/*super* 'something was great').[8]

A crucial concept in variationist sociolinguistics is the Principle of Accountability (Labov 1966:49, 1969:737–738, 1972:72). This principle mandates that all competing variants that are part of the variable context are included in the analysis, as opposed to simply the ones that are of interest. In other words, to understand the factors that influence, for instance, the decision to use *geil* 'great', the analysis cannot just be restricted exclusively to the instances where only *geil* was used. Instead, all variants—here: adjectives of positive evaluation—need to be included in the analysis because in doing so one observes the instances where *geil* could have been used but was not. Knowing the ratio of occurrence of a particular adjective to the total number of other equivalent variants allows the researcher to investigate correlations. Mathematically, the Principle of Accountability takes into account the fact that some speakers may have had more opportunities to use a given variant than others. By way of illustration, suppose one speaker (Speaker A) uses *geil* four times, but another speaker (Speaker B) uses *geil* twenty times. If only instances of occurrence are considered, the logical conclusion would be that Speaker B uses *geil* more frequently than Speaker A. However, Speaker B may have had more opportunities to use *geil* (20/1000=2%) than Speaker A (4/5=80%). Therefore, only when the total number of opportunities are factored in (here: the denominator) can any substantial claims be made about frequency (Buchstaller 2009:1017, Tagliamonte 2012:11–12). In variationist sociolinguistics, when what occurred is contrasted with the total number of times it could have occurred, it is

[8] It should be noted though that Auer (2016:75) provided a slightly broader interpretation of adjectives of positive evaluation in his study on the construction *wie X ist das denn* 'how X is that then', and thus included adjectives such as *lustig* 'funny' and *süß* 'sweet'. Given that in the present study the semantic field of positive evaluation is defined as adjectives synonymous with *toll* 'great', the adjectives *lustig* and *süß* were not included, even though they denote positive qualities.

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reported in the "distributional analysis" (Tagliamonte 2012:12; see section 4.1 below).[9]

The motivation for focusing on German adjectives of positive evaluation as the linguistic variable is twofold. First, this class of adjectives is known for its competitive fluctuation, with variants coming in and out of fashion throughout time (Adamzik 1984:248, Androutsopoulos 1998:434). This is evident from the sheer number of incoming variants that are reported to have entered German "Jugendsprache" [youth language] in recent years (see Vogt et al. 2016:90–119). While other semantic fields such as *anger* exhibit variation too (for example, *sauer*/*böse/zornig* 'angry'), there are seemingly fewer variants within the envelope of variation. When the variants reported in the present study are compared with variants in other studies (Schenker 1977:302, Androutsopoulos 1998:438), one finds almost one hundred synonymous German adjectives that denote positive evaluation, which makes this semantic field an interesting locus of variation. The question of which variants are currently in use is an empirical one, which is addressed in this study. The second reason for focusing on adjectives of positive evaluation is that, as mentioned earlier, there is recent comparable crosslinguistic work (Tagliamonte & Pabst 2020). Given that the authors found both internal and external correlates of variation, it is pertinent to examine whether or not adjectives of positive evaluation exhibit similar constraints in German.

3. Methodology: The Corpus and Coding.

FOLK is a 1.6-million-word subcorpus of the *Datenbank für Gesprochenes Deutsch* (*DGD*; Database for Spoken German), which is publicly available online (Schmidt 2016). As Fandrych et al. (2012) point out, FOLK is the most frequently used subcorpus of DGD and prior to its compilation, few corpora of spoken German had been made available to the scientific community (Schmidt 2016:397). At the time of abstraction, FOLK contained 219 spontaneous spoken interactions, which had been transcribed orthographically, but the original audio files were still accessible through the corpus platform. The interactions included, but were not limited to, everyday communication such as conversations over

[9] For more information on the Principle of Accountability, see Tagliamonte 2012:9–20.

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coffee, among friends, family, and couples, while doing housework or playing games, as well as exchanges at meetings and with various service providers. Because FOLK contains vernacular speech and is reasonably stratified for gender and age, the corpus data are apt for a variationist analysis.

Following previous work on English adjective variation, a list of adjectives of positive evaluation was compiled based on previous literature and dictionaries/thesauruses (such as Duden). Once this list had been compiled, search queries were run to find these variants in the corpus, which were subsequently downloaded and inspected manually to remove any functionally or synonymously nonequivalent tokens. Particular care was taken with the adjective *krass* 'cool' given that its meaning can be ambiguous as it can also mean 'extreme'.[10] Following previous work (Tagliamonte & Brooke 2014, Stratton 2020b, Tagliamonte & Pabst 2020), negative, comparative, and superlative tokens were excluded since these can alter the functional scale of meaning.[11] Because German adjectives and German adverbs often have no overt morphological difference, adverbs had to be removed manually. Nonintensified instances of the adjective *gut* 'good' were also not included since there is likely a scalar difference between *gut* 'good' and *toll* 'great', the former being weaker than the latter. However, as in Tagliamonte & Pabst 2020, tokens of intensifier + *gut* were included, which is consistent with Androutsopoulos 1998, where *sehr gut* 'very good' was listed as synonymous with other adjectives of positive evaluation.[12] Note that some adjectives can also be used as intensifiers,

[10] For instance, *ein krasser Fall von Korruption* does not mean 'a cool case of corruption', but rather 'an extreme case of corruption' (Duden, *krass*).

[11] As Tagliamonte & Pabst (2020:12) point out, negative, superlative, and comparative adjectives are only marginally acceptable in stand-alone position. Therefore, if stand-alone position is considered as a factor of variation, the contexts that block this syntactic position must be removed.

[12] To disambiguate between *gut* and intensifier + *gut*, Tagliamonte & Pabst (2020:10) referred to the latter as adjectives of "highly positive evaluation." However, the present study uses the term *positive evaluation* given that previous research on German referred to these adjectives as "wertpositive Adjektive" (Androutsopoulos 1998:438).

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as in *jemand ist top fit* 'someone is super fit', *es war krass geil* 'it was super great', *das ist mega gesund* 'that is mega healthy', *dein Kleid sieht derbe gut aus* 'your dress looks really good', and *er ist super fit* 'he is super fit'. A qualitative reading of the data ensured that these were not included as adjectives.

To ensure that variants were not missed, an additional search was run to compile a list of all adjectives in the corpus. Any adjectives of positive evaluation that appeared on the list that were not mentioned in previous literature were added. After circumscribing the variable context, each adjective utterance was matched with the appropriate sociolinguistic metadata, which included gender, age, and region. Each adjective was also coded for lexical item (that is, the adjectives were lemmatized, for instance, *cool*, *super*, *toll*), for its syntactic position (for example, predicative/attributive position), the presence or absence of a preceding intensifier (such as *voll*, *richtig*), and the interaction setting. Coding the data in this way prepared the dataset for the multivariate analysis.

For the multivariate analysis, a series of binary logistic regressions were run using *Rbrul* (Johnson 2009), with *speaker* included as a random factor to account for any idiosyncratic interspeaker variability. Following Tagliamonte & Pabst 2020, the dependent variable was the adjective in question (such as *toll* 'great', coded [1]), which was compared against all other variants (coded [0]). The independent variables/factors included in the regression analyses were *gender*, *age*, and *syntactic position*. The factor *gender* had two levels: [male] and [female], the factor *age* had six levels: [0–14], [15–24], [25–34], [35–44], [45–59], [60+], and *syntactic position* had three levels: [attributive], [bare/stand-alone], [predicative].

Given that register and geographical region may also influence adjective choice, including these variables as additional factors in the multivariate analysis would seem fitting. However, both factors were unbalanced in the corpus. While FOLK includes metadata for *register* under the parameter *Interaktionsdomäme* 'interaction domain', which has four levels—namely, [privat (private)], [institutionell (institutional)], [öffentlich (public)], and [sonstiges (miscellaneous)], 46% of the data in the corpus were private interactions, 31% were institutional interactions, 11% were public interactions, and 12% were miscellaneous inter-

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actions.[13] The same is true for *geography*, which includes data for the three supraregions (North, Central, and South Germany), divided into East and West: [nordwest (northwest)], [nordost (northeast)], [mittelwest (central west)], [mittelost (central east], [südwest (southwest)], [südost (southeast)]; but the data for Central West Germany were weighted at 39%, Northwest Germany 23%, Southwest Germany 17%, and the remaining regions were weighted at less than 10%. Northeast Germany, for instance, made up only 3% of the data. For this reason, including *register* and *geography* in the multivariate analysis would have been problematic. These factors were, however, included in the distributional analysis, as sample imbalances were dealt with quantitatively through the Principle of Accountability.

4. Results.

4.1. Distributional Analysis.

After circumscribing the variable context, there were 3,082 tokens of adjectives of positive evaluation. Of these, 28 different variants were identified. Their distribution is reported in table 1.

[13] These levels were chosen following Biber 1993, where *register* is operationalized using "situational parameters" such as *setting*. Private interactions are informal conversations among friends and family, and institutional interactions are conversations at "institutioneller Räumlichkeiten" [institutional premises], such as post offices. Public interactions are conversations that have a broader intended audience (for example, TV debates); these are typically more formal conversations dealing with science, politics, and economy. All other conversations that could not be easily categorized as any one of those three were labeled "miscellaneous" (Kaiser 2018:522–524).

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Adjective	***N***	**%**
cool	682	22
toll	618	20
intensifier + *gut*	567	18
geil	388	13
super	289	9
krass	238	8
prima	51	2
klasse	42	1.4
wunderbar	42	1.4
genial	22	.7
großartig	20	.6
top	17	.5
Other	106	3.4
TOTAL	3,082	100

Table 1. The distribution of adjectives of positive evaluation.

Of the 28 variants, the most frequent was *cool* 'cool', which made up 22% of the semantic field, followed closely by *toll* 'great', which made up 20% of the field, and intensifier + *gut* 'good', which made up 18%. The adjective *geil* 'great' occupied fourth position with 13%, followed by *super* 'super' with 9% and *krass* 'cool' with 8%. The most frequent variant in the "other" category was *hammer* 'great' with 14 tokens, followed by *fantastisch* 'fantastic' with 13 tokens, and *nice* 'nice' with 11 tokens.

As for the syntactic distribution, 60% of the adjectives (or 1,837 tokens) appeared predicatively, 29% (or 897 tokens) appeared as stand-alone adjectives, and 11% (or 348 tokens) appeared attributively. This distribution suggests, at least with respect to German adjectives of positive evaluation, that adjectives in general are used most frequently in predicative position and least frequently in attributive position. However, adjectives did have notable descriptive preferences for certain syntactic positions. For instance, frequently used adjectives such as *cool* appeared mostly in predicative position (54%) and stand-alone position (40%), whereas less frequently used adjectives such as *ausgezeichnet* 'excellent' and *fabelhaft* 'fabulous' appeared most frequently in attributive position (100%). Some examples are provided in 3. Tagliamonte & Pabst (2020:22) proposed a "general systemic evolution for newly developing

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forms: stand-alone → predicative → attributive," a cline that appears to fit the distribution of the German data. Newer variants such as *nice* and *hammer* were never found in attributive position.

(3) a. das Lied ist **cool**
'the song is cool' (FOLK_S_00182)

b. das wäre echt **cool** aber heute ist Sonntag
'that would.be really cool but today is Sunday'
(FOLK_S_00974)

c. … oh **cool**
'… oh cool' (FOLK_S_00203)

d. … es ist eine **ausgezeichnete** Frage
'… it is an excellent question' (FOLK_S_00569)

e. mein Bruder ist nämlich ein **ausgezeichneter** Bügler
my brother is namely an excellent ironer
'my brother is an excellent ironer' (FOLK_S_00702)

f. ich habe das Foto bei Facebook gesehen.
I have the photo at Facebook seen

Das ist ja **echt der Hammer**. Es sieht sich gut aus
that is yes real the hammer it looks itself good out

'I saw the photo on Facebook. It is really cool. It looks good'
(FOLK_S_00763)

While certain adjectives had a tendency to be intensified, others were rarely intensified. For instance, *krass* 'cool' was intensified 31% of the time, which is in range of the average intensification rate observed for German adjectives (Stratton 2020a:197), whereas adjectives such as *prima* 'great' were rarely intensified (6%). The adjective *ausgezeichnet* 'excellent' was never intensified, which might suggest that *ausgezeichnet* is a closed scale adjective that makes intensification infelicitous, at least

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intensification by *sehr* 'very'.[14] Many adjectives differed in their intensification rate, with some variants going below the threshold of 31% to varying degrees: *super* (12%), *klasse* (21%), *cool* (27%), *geil* (28%), *toll* (30%). While the adjective *geil* was intensified by a variety of intensifiers (such as *voll*/*richtig*/*echt* 'really'), it was most frequently intensified by *so*. Some examples of the intensified adjectives are provided in 4.[15]

(4) a. das war **voll geil**, das war **total gut**
'that was really great, that was totally good' (FOLK_S_00043)

b. schreiben wir in dem Jahr zwölf **richtig geile** Songs
write we in the year twelve really great songs
'we write 12 really great songs per year' (FOLK_S_00289)

c. des wär **echt geil**... das zu machen
that would.be real great that to do
'that would be really great…to do that' (FOLK_S_00613)

d. ...**so so geil** das Lied alder
so so great the song dude
'…such a great song, dude' (FOLK_S_00054)

It should be noted that the high frequency of *so geil* may be a product of the high frequency of the intensifier *so* as opposed to the collocation *so geil*. Stratton (2020a) found *so* to be among the three most frequently used intensifiers in German, whereas *voll* was used at a much lower frequency. After *so*, *voll* was used most frequently to intensify *geil* (29 tokens). The intensifier *sehr* 'very' intensified *geil* (6 tokens) at a considerably lower frequency, suggesting that newer and less accepted adjectives occur more frequently with newer or less accepted intensifiers. In contrast, adjectives that prescriptively are thought of as neutral or

[14] For information on closed scale versus open scale adjectives, see Kennedy & McNally 2005, Paradis 2008.

[15] Morphological intensification of *geil* in compounds such as *affengeil* and *schweinegeil* 'very great' did not appear in the corpus.

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standard occur more frequently with more accepted and codified intensifiers (for example, *sehr gut* 'very good' occurred 298 times). While *krass* was also intensified by a variety of intensifiers (*voll*/*echt*/*super* 'really'), it was often intensified by two adjacent intensifiers. Some examples are provided in 5.

(5) a. das war **echt total krass**
'that was really totally great' (FOLK_S_00182)

b. aber es ist **so richtig krass**
'but it is so really great' (FOLK_S_00477)

c. das ist immer **echt voll krass**
that is always real full great

wenn es ein bisschen getrocknet ist
when it a bit dried is

'that is always really super great when it is a bit dry'
(FOLK_S_00587)

Having examined the distribution of the internal factors of variation, the next step is to examine the distribution of the extralinguistic factors of variation. The first factor of interest is *age*. By using the apparent time construct (Labov 1963, 1966; Bailey et al. 1991), generational differences can be used as a proxy for gaining insight into the effect of age on adjective choice. Figure 1 shows the distribution of *cool*, *toll*, and *geil* in apparent time.

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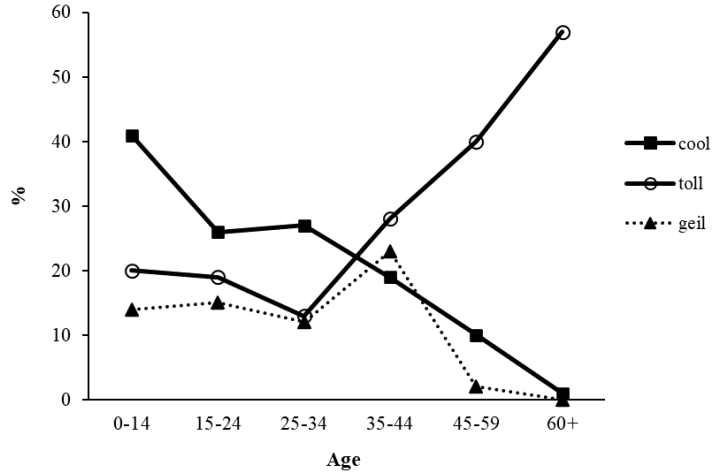


Figure 1. The distribution of *cool*, *toll*, and *geil* by age.[16]

In examining their distribution across different generational cohorts, three findings emerge. First, the younger the speaker, the lower the frequency of the adjective *toll* 'great'. Although *toll* was among the three most frequently used variants (table 1), the decline in frequency among younger generations suggests that it is an adjective that may not remain among the top three variants for long. Second, the distribution indicates that *cool* is used most frequently by younger cohorts than by older cohorts. In fact, *cool* was the front runner among speakers aged 24 or younger. Out of 682 tokens of *cool*, there was only one instance of *cool* used by a speaker aged 60 or above, which runs parallel to the findings in

[16] The frequency in figures 1, 2, and 3 is calculated according to the Principle of Accountability, not absolute frequency. The absolute frequency by age is as follows: *cool* [0–14]=20, [15–24]=357, [25–34]=222, [35–44]=59, [45–59]=23, [60+]=1; *toll* [0–14]=10, [15–24]=255, [25–34]=123, [35–44]=88, [45–59]=91, [60+]=51; *prima* [0–14]=1, [15–24]=2, [25–34]=7, [35–44]=6, [45–59]=21, [60+]=14; *super* [0–14]=2, [15–24]=81, [25–34]=81, [35–44]=71, [45–59]=48, [60+]=6; *geil* [0–14]=7, [15–24]=202, [25–34]=101, [35–44]=73, [45–59]=5, [60+]=0; *krass* [0–14]=2, [15–24]=144 , [25–34]=75, [35–44]=4, [45–59]=13, [60+]=0; *klasse* [0–14]=1, [15–24]=6, [25–34]=3, [35–44]=8, [45–59]=15, [60+]=9.

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Toronto English, where *cool* was reported to be mostly associated with younger speakers (Tagliamonte & Pabst 2020:16–18). Third, as for *geil*, it was used most frequently by the 35–44 cohort, decreasing in frequency among speakers aged 45 and above. The fact that *geil* was most frequently used by the 35–44 cohort is interesting in light of the fact that its use is often considered to be characteristic of youth language (Androutsopoulos 1998). However, its higher frequency among 35–44-year-olds is to be expected, given that *geil* as an adjective of positive evaluation was likely introduced by younger generations in the 1970s (Schenker 1977). The hypothesis that the 35–44 cohort led this change is supported by the fact that no speakers aged 60 or above were found using *geil*. The adjective *geil* was not part of their repertoire. The distribution of *prima*, *super*, *krass*, and *klasse* appears in figure 2.

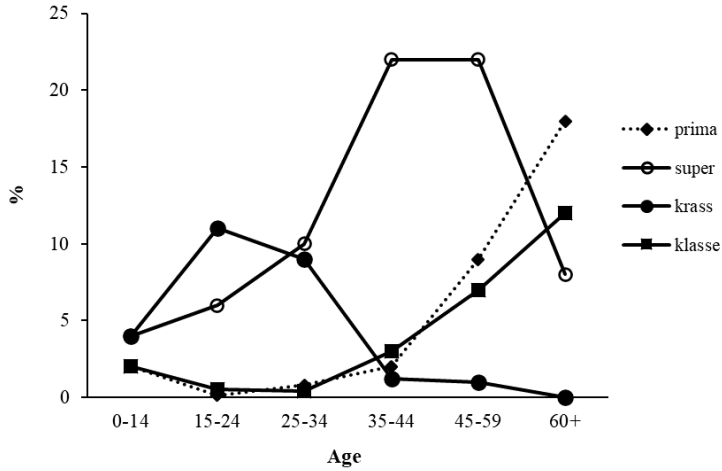


Figure 2. The distribution of *prima*, *super*, *krass*, and *klasse* by age.

The adjectives *klasse* 'class' and *prima* 'cool' show a similar trajectory, that is, they were seldom used by speakers under the age of 45. Their use is therefore seemingly indicative of the speech of older speakers. Their low frequency among younger cohorts also suggests that their use may soon be marginalized to infrequently used variants. As for *super*, its distribution is similar to that of *geil* in figure 1, as it too was used most frequently by speakers in the 35–44 range, decreasing in frequency with speakers over the age of 45. The distribution of *krass* shows a falling

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trajectory as age increases, indicating the encroachment of a newer variant among younger cohorts.

In addition to the adjectives reported in figures 1 and 2, many less frequently used adjectives also appeared to be constrained by age, at least descriptively. For instance, the adjective *astrein* 'awesome' was only used by speakers over the age of 40, whereas *genial* 'great' was only used by speakers under the age of 30. The second external factor of interest is *gender*. The distribution of variants by gender is reported in figure 3.

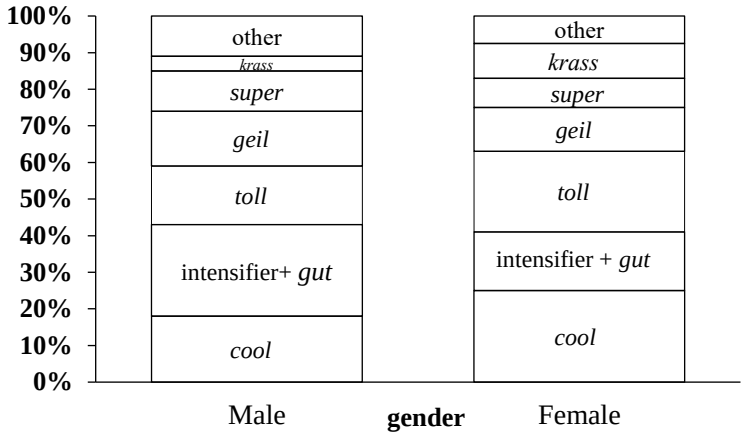


Figure 3. The distribution of adjectives of positive evaluation by gender.

Immediately it becomes clear that intensifier + *gut* was the most favored variant among men, making up 25% of their repertoire, but a much smaller proportion of women's repertoire with only 16%. In contrast, *cool* made up 25% of women's system of positive evaluation adjectives. On this basis, there is descriptive evidence to suggest that women are leaders of the linguistic change of using *cool* as an adjective of positive evaluation, whereas men continue to use the prototypical intensifier + *gut* as their number one variant.

The fact that *cool* made up a larger portion of women's system of variants than of the men's system of variants is in line with one of Labov's Principles of Linguistic Change, according to which women are thought to be the pioneers, or frontrunners of change (Labov 2001:274–275). Interestingly, however, *geil* 'great' made up a larger share of men's

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system of positive evaluation adjectives. One possible explanation for this is that the sexual connotations associated with using *geil* leads to its potentially disfavored use among women. This observation is also in line with what has been observed about "covert prestige", that is, men are thought to use more nonstandard and less prestigious forms than women (Labov 1972:243; Trudgill 1972:182–183, 1983:161; Labov 2001:266). In line with this view, women used *krass* 'cool' more frequently than men, perhaps due to the fact that *krass* is devoid of sexual or taboo connotations.

Of the 3,082 tokens of positive evaluation, 2,846 contained the appropriate metadata for *geography* (table 2). Because *geography* was not balanced, comparing absolute frequencies of adjectives used in different regions would be misrepresentative. Therefore, table 2 reports the weighted share of variants proportionate to the number of variants used per region. The distribution of variants in Northwest Germany mirrors the overall ranking of variants in table 1.

	NW	NE	MW	ME	SW	SE
Variant	Freq (%)	Freq (%)	Freq (%)	Freq (%)	Freq (%)	Freq (%)
cool	164 (26)	18 (22)	260 (19)	14 (16)	41 (14)	73 (21)
toll	112 (18)	21 (25)	331 (24)	15 (17)	50 (16)	36 (10)
intens.+*gut*	100 (16)	21 (25)	269 (20)	16 (18)	48 (17)	72 (21)
geil	74 (12)	3 (4)	164 (12)	3 (4)	59 (19)	57 (16)
super	65 (10)	6 (7)	93 (7)	7 (8)	30 (10)	56 (16)
krass	52 (8)	4 (5)	95 (7)	19 (22)	35 (11)	23 (7)
wunderbar	5 (1)	0 (0)	35 (3)	1 (1)	15 (5)	1 (.3)
prima	6 (1)	1 (1)	30 (2)	4 (5)	9 (3)	0 (0)
Other	57 (8)	9 (11)	97 (6)	21 (9)	19 (5)	30 (8.7)
TOTAL	635 (100)	83 (100)	1,374 (100)	100 (100)	306 (100)	348 (100)

Table 2. The distribution of variants by region.

While the order is predominantly the same in Northeast and Central East Germany, the data suggest that *toll* and intensifier + *gut* are favored slightly more than *cool* in these regions. However, the data for these regions are not a fair representation of the population given the low number of tokens in the envelope of variation (that is, less than 90). The

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difference in ranking is therefore likely attributed to the sampling imbalance as opposed to a clear geographical difference. For instance, there were more older speakers in the sample for Northeast Germany than in the sample for Northwest Germany, which, in light of the distributional evidence on age, would offer an explanation as to why *toll* is ranked higher in Northeast Germany. Similarly, a purely corpus-driven approach would initially leave one to conclude that *wunderbar* 'wonderful' is not used in Northeast Germany given its lack of attestation. In reality, its absence in the data for this region is also likely a consequence of sampling. Ultimately, only Northwest and the Central West Germany have sufficient sample sizes to adequately represent geography but there were no major differences in the ranking of variants; *cool*, *toll*, intensifier + *gut* were still the top three favored variants.

Turning to another external factor, the distribution of adjective variants by register is reported in table 3.

	Institutional	Public	Private	Other
Variant	Freq (%)	Freq (%)	Freq (%)	Freq (%)
cool	105(15.3)	0 (0)	570 (26)	7 (6)
toll	133(19.4)	3 (7)	454 (20)	28 (23)
intensifier + *gut*	169 (25)	12 (28)	346 (16)	40 (33)
geil	51 (7.4)	0 (0)	331 (15)	6 (4.9)
super	89 (12.9)	3 (7)	189 (8)	8 (6.5)
krass	22 (3)	0 (0)	205 (9.1)	11 (9)
wunderbar	27 (4)	3 (7)	11 (.5)	1 (.8)
prima	14 (2)	4 (9)	32 (1.4)	1 (.8)
Other	75 (11)	18 (42)	94 (4)	20 (16)
TOTAL	685 (100)	43 (100)	2,232 (100)	122 (100)

Table 3. The distribution of variants by register.

As with *geography*, a comparison of absolute frequencies of a given variant across registers would be problematic in light of balance issues. Therefore, following the Principle of Accountability, the number of times a variant was used in a given register was also compared to the total number of times the variants were used in that register. Doing so revealed a number of findings. First, *cool* took up a larger share of

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positive evaluation adjectives in private interactions than in the other three settings, confirming, as one might hypothesize, that the use of *cool* is more frequent in informal contexts. This hypothesis appears to hold true given that there were no tokens of *cool* reported in the most formal of the four registers, namely, public/televised interactions. Second, like *cool*, *geil* appeared to be reserved for more informal interactions, and its use was not found in public interactions. Third, in contrast to *cool* and *geil*, the variants *prima* and *wunderbar* made up a larger proportion of the positive evaluation adjectives in public interactions. While their use was found in all four interaction types, their proportional use was higher in public interactions.

After examining the distribution of internal and external factors, it is also useful to examine their interaction. To do so, the syntactic distribution of adjectives was crosstabulated by age, which indicated that while *toll* was used most frequently in predicative and attributive position by older cohorts, it was preferred in stand-alone position by younger cohorts. Its higher frequent attributive use by older speakers supports the cline outlined by Tagliamonte & Pabst (2020), where incoming forms are shown to favor predicative and stand-alone position, whereas outgoing forms are shown to favor attributive position. This observation holds true for the incoming variant *nice*: 90% of the time it appeared in stand-alone position (as in *sehr nice* 'very nice') and 10% of the time in predicative position. Interestingly, the opposite was true for intensifier + *gut*: The younger the speaker, the higher its predicative use. While it was least favored in attributive position by all age groups, it was used attributively more frequently by older speakers than by younger speakers. Although *top* occurred infrequently in the corpus, when it was used by younger speakers it was used both as a stand-alone adjective or predicatively (as in *der ist top* 'he is great' lit. 'top'), whereas by older speakers it was always used attributively (as in *top Zeugnis* 'great report').

4.2. Multivariate Analysis.

To examine whether or not the factors *gender*, *age*, and *syntactic position* were statistically significant, a series of mixed effects binary logistic regressions were run. However, given the assumptions of regression modeling, regressions could only be run on the most frequent variants. Moreover, because it is recommended that linguistic data in regression models contain a minimum of 10 observations per speaker

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(Tagliamonte 2016b:14), speakers who contributed less than 10 adjectives of positive evaluation were removed. What remained were 3,031 tokens. As mentioned in section 3.2, following Tagliamonte & Pabst 2020, the dichotomous dependent variable was the adjective in question versus all other variants.

Input	.92		
N	669		
Total	3031		
	N	%	FW
GENDER (p<.00113)			
Female	2064	24.7	.55
Male	967	17.1	.45
Range			*10*
AGE (p<1.63e-11)			
0–14	24	50.0	.89
15–24	1318	27.1	.74
25–34	836	26.6	.65
35–44	377	15.6	.55
45–59	319	7.07	.31
60+	157	.006	.03
Range			*86*
POSITION (p<5.12e-08)			
Stand-alone	870	30.8	.62
Predicative	1803	19.9	.48
Attributive	358	13.1	.40
Range			*22*
Random Effect (Speaker n=385, SD=1.29)			

Table 4. Logistic regression analysis of *cool*.

Table 4 reports the results of the regression analysis of *cool*. All three factors were identified as highly significant, that is, influencing the choice to use *cool* or not. As the distributional evidence suggested, the model indicated that the older the speaker, the less likely *cool* was to be used (see figure 4). As for gender, the model confirmed that women use *cool* more frequently than men at a significance level of .001. As for position, the predilection to use *cool* in stand-alone position was found to be statistically significant when compared to its use in predicative and attributive position. As the Factor Weight (FW) indicates, stand-alone use of *cool* was most frequent, followed by predicative use, and by

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attributive use. The range for the factor age (86) highlights the speed at which the frequency of *cool* is increasing, as it becomes more and more popular among younger generations.

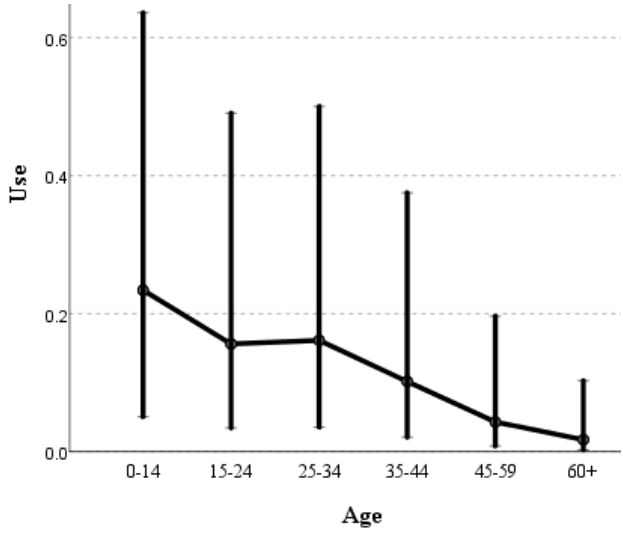


Figure 4. Estimated marginal means for the use of *cool* by age.

The output of the regression analysis for the use of *toll* is reported in table 5. As with the previous model, all three factors were identified as statistically significant. Younger speakers used *toll* significantly less than older speakers, which is shown graphically in figure 5. As for *gender*, women used *toll* more frequently than men. The position of the adjective was also identified as a constraint. The adjective *toll* appeared most frequently in attributive position and least frequently in stand-alone position. Finally, the model also found an interaction effect between young speakers and the use of *toll* as a stand-alone adjective. Speakers aged 14 or below used *toll* in stand-alone position more frequently than any other age group.

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Input	.146		
N	598		
Total	3031		
	N	%	FW
GENDER (p<0.00343)			
Female	2064	21.8	.58
Male	967	15.3	.42
Range			*16*
AGE (p<0.0149)			
0–14	24	12.5	.38
15–24	1318	39.1	.40
25–34	836	42.6	.43
35–44	377	60.1	.60
45–59	319	52.3	.52
60+	157	67.6	.68
Range			*30*
POSITION (p<3.69e-17)			
Stand-alone	870	12.9	.35
Predicative	1803	19.0	.43
Attributive	358	39.9	.71
Range			*36*
Random Effect (Speaker n=385, SD=1.25)			

Table 5. Logistic regression analysis of *toll*.

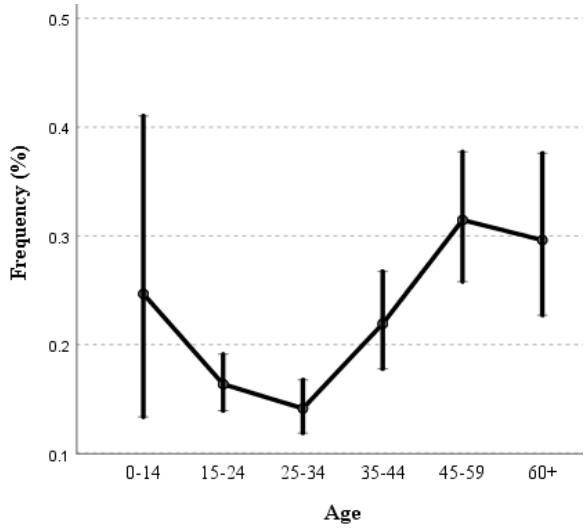


Figure 5. Estimated marginal means for the use of *toll* by age.

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Table 6 reports the output of the regression analysis of intensifier + *gut*. While gender was not a significant factor, the model found the age of the speaker to be statistically significant, with intensifier + *gut* favored most frequently among older speakers. All speakers used intensifier + *gut* less frequently than speakers in the 60+ cohort. A graphical representation is provided in figure 6. The model also identified syntactic position as a significant factor, with attributive use least frequent, as indicated by the Factor Weight (FW).

Input	.014		
N	566		
Total	3031		
	N	%	FW
GENDER (p<0.172)			
Female	2064	16.2	.47
Male	967	24.0	.53
Range			
AGE (p<0.00455)			
0–14	24	00.0	.00
15–24	1318	17.1	.89
25–34	836	19.1	.92
35–44	377	11.9	.86
45–59	319	21.3	.93
60+	157	43.3	.96
Range			*95*
POSITION (p<9.27e-07)			
Stand-alone	870	18.0	.50
Predicative	1803	20.5	.61
Attributive	358	10.9	.39
Range			*22*
Random Effect (Speaker n=385, SD=1.24)			

Table 6. Logistic regression analysis of intensifier + *gut*.

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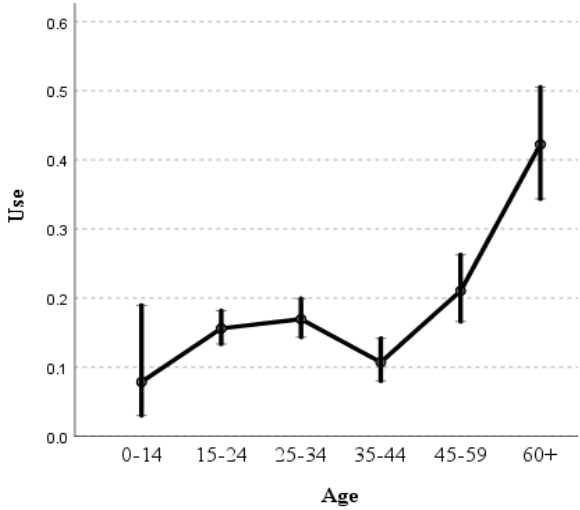


Figure 6. Estimated marginal means for the use of intensifier + *gut* by age.

Input	.957		
N	387		
Total	3031		
	N	%	FW
GENDER (p<0.333)			
Female	2064	11.9	.47
Male	967	14.7	.54
Range			
AGE (p<1.41e-08)			
0–14	24	25.0	.98
15–24	1318	15.3	.90
25–34	836	12.1	.85
35–44	377	19.4	.87
45–59	319	16.0	.41
60+	157	0.00	.00
Range			
POSITION (p<0.00991)			
Stand-alone	870	13.9	.57
Predicative	1803	13.5	.55
Attributive	358	.064	.38
Range			
Random Effect (Speaker n=385, SD=17.7)			

Table 7. Logistic regression analysis of *geil*.

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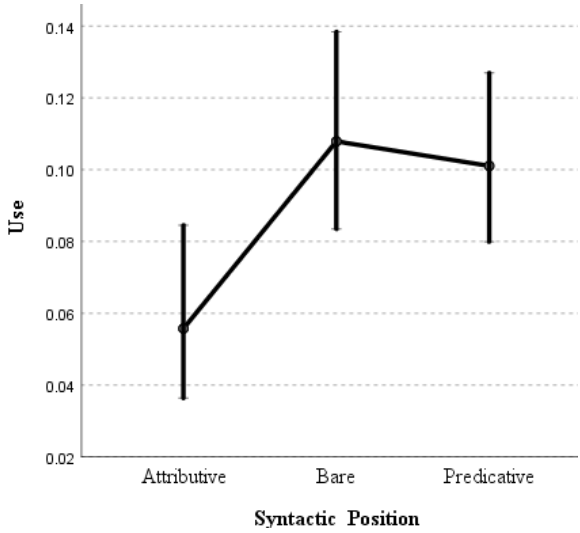


Figure 7. Estimated marginal means for the use of *geil* by position.

A final regression was run on the use of *geil* (see table 7). Age and position were found to be significant factors. As the distributional analysis suggested, speakers in the 35–44 cohort used *geil* more frequently than any other age group. Moreover, given that *geil* was not used by speakers aged 60 and above, age was a significant factor for speakers of all ages. Although, descriptively speaking, *geil* was used more frequently by men than women, the difference was not identified as statistically significant. However, position was a significant factor, with attributive use least frequent and stand-alone use most frequent (see figure 7).

5. Discussion.

The present study set out to examine the factors that influence German adjective choices. The distributional analysis indicated that while 28 adjectives of positive evaluation were identified in the corpus, the semantic field was occupied by predominantly three frequently used variants: *cool*, *toll*, and intensifier + *gut*. These three variants are interesting in and of themselves, but their crosslinguistic correspondence is intriguing given that they mirror the findings observed in Toronto English. In their study on English adjectives of positive evaluation, Tagliamonte & Pabst (2020:15) make the following observation:

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> […] a single semantic field is populated by at most three primary (i.e., very frequent) forms. In the case of adjectives of highly positive evaluation in particular, one form is a periphrastic construction comprised of an intensifying adverb plus one of the most common adjectives in the language for positive affect, *good*.

Not only was the equivalent of the intensifier + *gut* construction one of the top three variants in Toronto English, but *cool* was also the most frequently used variant in the German data. Despite the semantic field being dominated by only three variants, the system of positive evaluation adjectives consisted of 28 variants, which is an example of "layering", that is, the coexistence of the old and the new (Hopper 1991:22–31).[17] While it is not clear exactly when *cool* was borrowed into German, it was likely borrowed from American English, perhaps through Anglophone music, entertainment, or through popular culture.

In comparing the present findings with findings in previous research, it becomes clear that a change in the system of positive evaluation adjectives has taken place. In the 1970s, Schenker (1977) reported that *astrein*, *klasse*, and *dufte* were the most popular variants. However, according to the present dataset, four to five decades later these variants have virtually vanished from the system. The adjective *astrein* was only ever used by older speakers, *klasse* was used almost exclusively by older speakers, and *dufte* was not used at all. The fact that the dwindling use of *astrein* and *klasse* was only found in the speech of older speakers indicates that the variants used in the 1970s did not cross over to the next generation; that is, their use remains generational. In the 1990s, Androutsopoulos (1998) reported that *geil* was the most frequently used variant among younger speakers, followed by *genial* 'great', *kultig* 'cool', *korrekt* 'great', and *cool* 'cool'. According to the present dataset, with the exception of *geil* and *cool*, the other variants are no longer favored. The adjectives *kultig* and *korrekt* did not appear in the corpus, and while *genial* was used, it occupied less than 1 percent of the system of positive evaluation adjectives. Other adjectives that were once used, such as *knorke* and *töfte* 'great', were also not attested, which in addition

[17] Longitudinal layering of variants seems to be a natural product of a linguistic system that exhibits considerable variability.

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to the other findings, shows that the system of positive evaluation adjectives is a dynamic and perpetually changing one, with time in the limelight and increased popularity sometimes being ephemeral.

The multivariate analysis found that linguistic and social constraints condition German adjective variation. For instance, the use of the adjective *cool* was heavily influenced by the age and gender of the speaker. A monotonic increase was observed across generations, with *cool* favored by younger rather than older cohorts, which is indicative of a change in progress. The fact that *cool* was used most frequently by younger speakers is also in line with the observation that younger as opposed to older speakers are at the forefront of linguistic change (Androutsopoulos 1998, Labov 2001, Tagliamonte 2016a). In addition to being used most frequently by young speakers, *cool* was also used most frequently by women, suggesting that it is young women leading this change. This finding is therefore in line with the observation that linguistic change is often led by women (Labov 2001:274–275). In contrast, as the distributional analysis suggested, men favored the prototypical intensifier + *gut* over any other variant.

Moreover, the fact that intensifier + *gut* was used most frequently by older generations is also consistent with the observation that younger speakers lead in linguistic change. After all, the intensifier + *gut* construction has been around for quite some time (Stratton 2021).[18]

Bearing age differences in mind, it is also possible to make a prediction about the future fate of *toll*. Although it was the second most frequently used variant, it was used predominantly by older speakers. According to the assumptions of the apparent time construct, disfavored use among younger speakers would suggest that the variant may soon lower in frequency.

In addition to finding age and gender to be significant conditioning factors, German adjectives were also constrained by the syntactic position. The adjective *toll* appeared in different syntactic positions depending on the age of the speaker. *Toll* was favored in attributive

[18] For instance, in Old Saxon *suido god gumo* 'very good man' (Hêliand, line 4:313) and in Old English *swiðe god sealf* 'very good ointment', Leechdoms, Wortcunning, and Starcraft of Early England II. For a variationist analysis of Old English intensifiers, see Stratton 2021.

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position by older speakers but was favored as a stand-alone adjective by younger speakers. In contrast, *geil*, which was not used by speakers aged 60 or above, was favored in stand-alone and predicative position as opposed to attributive position. According to the developmental pathway suggested by Tagliamonte & Pabst (2020), the disfavoring of attributive use suggests that *geil* is still in the incipient developmental stages as an adjective of positive evaluation. Put differently, *geil* may stick around as a popular variant for quite some time. Another interesting finding with respect to *geil* was that it was favored most frequently by speakers aged 35–44. While using *geil* to denote positive evaluation may have originally been considered "Jugendsprache" [youth language] (Androutsopoulos 1998), the young speakers who likely introduced this innovation have aged. In other words, the use of this adjective is not subject to "age-grading" (Labov 1994:84), a process whereby features peak during adolescence "when peer group pressure not to conform to society's norms is greatest" and then decrease in their "middle-years" (Holmes 1992:184). Not being affected by age-grading likely explains why *geil* is still frequently used, whereas *dufte* and *knorke* are not. However, real-time data would be required to confirm this.

While register was not included in the multivariate analysis, distributional evidence suggests that some adjectives, such as *cool* and *geil*, are favored in more informal interactions, whereas other adjectives, such as *wunderbar*, are favored in more formal interactions. Moreover, although regressions were not run on *krass* 'cool' due to the fact that it made up only 8% of the data, the distributional evidence indicates that women favor *krass* more than men (see figure 2).[19] The distributional evidence in figure 2 also suggests that *krass* is used more frequently by younger speakers than by older speakers, suggesting that, like *geil*, *krass* is likely to remain within this system for quite some time.

In contrast, the apparent time trajectory of *prima* suggests that *prima* is decreasing in frequency. Unless it is picked up by younger speakers, it is likely to become an infrequent variant in the near future. As for the incoming variants reported by Vogt et al. (2016), these were yet to be

[19] In order for regression models to provide reliable results, it is important to have a reasonable distribution. A distribution of 8 out 100 is skewed and would therefore have a grave effect on the predictive capacity of a model.

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attested in the data. In general, as Tagliamonte & Pabst (2020:23) point out, "when new adjectives enter a semantic field, it may take some time before they successfully encroach on a large share of the system, if they ever do so." The variant *nice*, which is currently used by adolescent speakers and young adults, only made up a miniscule share of the German system. Therefore, the success of newer variants of positive evaluation warrants future research using real-time data.

6. Conclusion.

Since the advent of Labovian sociolinguistics (Labov 1963, 1966), quantitative studies have identified underlying systematicity in various linguistic domains. However, despite the plethora of research on English, there is a dearth of variationist sociolinguistic scholarship on German. The present study used variationist quantitative methods to examine a previously understudied domain of linguistic variability, namely, German adjective variation. While there is an established correlation between geographical space and lexical variation, this study shows how lexical variation can also correlate with social space, with adjective use indexing social meaning. A close examination of adjectives of positive evaluation revealed a dynamic, socially and linguistically constrained system. Depending on the gender and age of the speaker, different adjectives were favored: Younger speakers preferred adjectives such as *cool* and *geil*, whereas older speakers preferred adjectives such as *toll* and intensifier + *gut*. Comparisons across apparent time, as well as with previous research, show that this field is a perpetually changing one, with variants coming in and out of fashion longitudinally, indicating that this semantic field is a vibrant locus of variation. There was also some empirical support for the principle that women generally lead in linguistic change (Labov 2001:274–275), with the change toward using *cool* spearheaded by women.

While homing in on positive evaluation adjectives only touches the tip of the iceberg with respect to German adjective variation, the use of a semantic field as a means to study lexical variation opens a gateway for future researchers to study onomasiological sets. More broadly speaking, in line with ongoing variationist work, the present study shows how German variation can often be explained through factors other than geography and style. While geography has undoubtedly played an important role in German dialectology, by using a variationist framework

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the present study hopes to have provided some support for the notion that other external factors such as gender and age can also condition German variation. That is not to say that the role of geography and register should be downplayed, but rather additional factors of variation need to be included in the analysis to gain a composite picture of the variation at hand.

Moving forward, a number of intriguing research questions remain. More locally on the topic of adjective variation, whether other semantic domains are also influenced by social or linguistic factors remains to be studied. Some of the domains that can be studied include, but are not limited to, adjectives of negative evaluation, adjectives of attraction, and adjectives of strangeness. Whether similar tendencies can be observed in other varieties of German, such as Swiss German or Austrian German, is a question open for future research. Furthermore, while some predictions about the fate of positive evaluation adjectives were made, only a future analysis will ultimately be able to robustly determine which adjectives remained in the system or not. More broadly speaking, how internal and external factors condition other variable domains of grammar and lexis in the German language are future topics to be explored. The present study hopes to inspire future variationist work to tackle these questions within the field of German variation and change.

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