Peaze Up! Adaptation, Innovation, and Variation in German Hip Hop Discourse

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Matt Garley

Introduction

Glocalization has been characterized as “a process by which globally-circulating cultural resources are recontextualized in local settings” (Androutsopoulos 2009). This definition highlights the interaction between a globalizing culture and the media whereby the cultural resources of that culture are carried around the globe. This includes diverse modes of computer-mediated communication. Hip hop culture is an ideal domain for such questions, as it is a “glocalizing” culture: it has a central node in the United States and is also instantiated in various local hip hop scenes around the globe. In addition, Morgan (2001: 189) aptly notes: “Unlike rock and other musical genres, Hip Hop is based on the co-authorship of artists and urban youth communities.” Because of this co-authorship, and in particular the relationship of the artists to youth communities, hip hop reflects, influences, and mediates language use “on the ground” in these communities and beyond, and is thus especially interesting as a domain of sociolinguistic inquiry. The centrality of language to the practice of hip hop, for both artist and fan, makes it particularly well-suited for studies of language behavior and the production of culture.

In this chapter, I investigate the use of <z> as an alternative orthographic choice in a roughly 13-million-word corpus (including discussions spanning the period from 2000 to 2011) collected from the German-language internet hip hop discussion forums at MZEE.com. This dataset is supplemented by

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1 Research for this chapter was supported in part by a Deutscher Akademischer Austausch Dienst (DAAD) Graduate Research Grant. In addition, I would like to thank the following individuals: Marina Terkourafi and Julia Hockenmaier for crucial early research guidance, the reviewers for this volume for their helpful contributions and suggestions, multiple friends and associates who participated in the ethnographic research, and finally, editors Cecilia Cutler and Unn Rayneland for their organization of foundational conference panels and their thoughtful and patient work on this volume. Any remaining errors or omissions are my own.

2 I adopt here the convention of using angle brackets < > for orthographic (written) strings of characters. Whole words from data considered as examples are italicized, and standard IPA forward slashes / / are used to indicate phonemes or strings thereof, and square brackets [] indicate phonetic realizations.
a comparable 19-million-word corpus collected from a US-based, English-language hip hop forum. Examination of the use of &lt;z&gt; in these two contexts illuminates the extent to which language contact, and especially extensive linguistic borrowing from English, has changed the way German youth use language, and this research demonstrates that the linguistic borrowing process and the stylization of English borrowings among German hip hop fans involves the complex application of morphological, phonological, and orthographic knowledge from multiple linguistic systems. This paper also deals with the formulaic use of English peace, an expression which functions discursively in global hip hop culture as a greeting, leave-taking, or closing. A number of hybrid orthographic variants are discussed for peace, including the orthographic &lt;z&gt;, e.g. peaze. I quantitatively analyze the distribution of these variants, comparing usage patterns in a German and a North American hip hop forum. I complement these results by presenting a qualitative analysis of peace and its variants, establishing a connection between linguistic features, discursive use, and corpus distribution. By quantitatively establishing large-scale patterns in the dataset, and qualitatively analyzing these patterns, a fuller picture of this heteroglossic linguistic situation can emerge.

Background

German interest in hip hop music and culture dates to the 1980s. In a 2010 ethnographic interview, “Erik,” an established German DJ and 20-year veteran of the scene described to me the initial locus of interest: in communities near US military bases, West German youth would often trade audio and video cassettes with the children of American servicemen. Erik remembered, especially vividly, his prized VHS copy of seminal American hip hop film Wild Style (1983). The cultural flow continued throughout the 1990s, mediated by radio play, music-focused television networks like VIVA and MTV, and eventually the internet. German-language rappers achieved initial popularity in the early 1990s, and since then, German hip hop has become a core genre of German popular music, evolving along its own trajectory as it merged with other forms, though certainly not independent of the influence of American hip hop music and culture. As in other parts of the world where hip hop has put down roots, German fans are predominantly teenagers and young adults. Hip hop is popular among both ethnic German and immigrant youth; since the late 1990s especially, ethnic diversity among hip hop artists has become the norm, and many of the most popular German rappers of all time represent ethnic minorities in Germany, like Kool Savas (of Turkish descent), Bushido (of Tunisian descent), and

3 a pseudonym.
Samy Deluxe (of Sudanese descent). The influence of English language varieties, particularly African American English and Hip Hop Nation Language, is extensive within the subculture, as noted for other hip hop scenes around the globe – see, e.g., chapters in Alim et al. (2009) and Terkourafi (2010). Hip hop, of course, is not the only channel for language contact in this domain. English study to some degree in grade school is common (but not universal) in modern Germany, and the dominance of English as the most prominent working language of the European Union and a de facto lingua franca for international business certainly has an influence on the popularity of English study in Germany. However, for the vast majority of Germans, English is a foreign language – the German sphere is norm-dependent, rather than a locus of a recognized English variety. Complicating matters are the multiple and complex pathways whereby Germans encounter English varieties. While business and government-related uses could constitute what Preisler (1999) terms “English from above,” the infiltration of unregulated, less-standardized, and diverse Englishes, primarily through globalizing popular media and the Internet, have the effect that Preisler describes as “English from below.” Online communications are well-established as data sources for the expression of metalinguistic commentary: Jones and Schieffelin (2009) studied YouTube comments on AT&T commercials featuring “textese,” an ideologized form of language involving the spoken rendition of text-message acronym practices. The authors found that commenters engaged with the commercial’s language “as a medium for verbal play and as stylistic marker of group membership subject to careful scrutiny” (Jones and Schieffelin 2009: 1075). In the present chapter, my focus on orthography is also informed by Sebba (2007), who establishes the use of orthography, and in particular variant orthography, in youth culture and subcultures, as a marker of sociocultural identity. Overall, then, the linguistic practices of German youth online – engaging in simultaneously global and local subcultural practices, influenced by multiple varieties of foreign-language English (and native-language German), and contending with attendant ideologies of language (described in Garley 2014), are a fertile ground for the investigation of language-contact phenomena.

Data and Methodology

The present study adopts a corpus-sociolinguistic approach to the examination of natural language data, which blends quantitative and qualitative methods. Thus, larger patterns of use are established quantitatively through the analysis of large corpora using automatic methods, implemented here through original tools written in Python. During the quantitative phase of research, lexical items
of interest are identified using patterns of frequency and distribution; individual items and sets of items are then analyzed qualitatively in context. This latter portion of the investigation uses the methods of Computer-Mediated Discourse Analysis (Herring 2004; Androutsopoulos and Beißwenger 2008), in that it consists of empirical analyses of texts which take into account the linguistic and social context of their production in order to reach conclusions regarding language as social behavior. The facts of language use in the present corpus underline the ubiquity not only of straightforward English loans in German hip hop culture, but also of word forms which reflect processes of innovation and adaptation. These processes seem at first pass unusual or anomalous, but I argue here that they are reflective of general processes involving the combination of sets of rules from different languages.

The primary dataset here is the multi-million-word MZEE.com internet forum corpus. I collected the corpus from the “Hip Hop Diskussion” sub-forum in 2011; MZEE.com, a German online retailer for hip hop fashion and accessories, is (as of December 2014) closed for business, but the forums hosted on the site remain open. According to internet use data, the MZEE.com forums were, up until 2009, the most popular German-language hip hop Internet forums in existence4 (Alexa Internet, Inc. 2012). Participants on these forums are typically German-speaking hip hop fans, expressing their views on topics germane to hip hop culture; as of May 2012, Alexa.com, a site monitoring internet statistics, reported that 84 percent of visits to the site originated in Germany, with roughly 3 percent each originating from Switzerland and Austria, and the remainder originating from other locations worldwide.

After collection, the data from the discussion pages were reformatted and extraneous material was excluded from the corpus. This material included quotes of other users’ posts made through the bulletin-board system’s affordances and lines repeated from post to post as well as “signatures,” and forum-specific emoticons. In order to ensure that like words were being grouped and counted together, punctuation and capitalization were also removed from the version of the corpus intended for quantitative analysis, but a separate XML version with original formatting, punctuation, capitalization, quotes, etc. was used for the qualitative portion of the analysis.

The final MZEE corpus included all posts in the ‘Hip Hop Diskussion’ subforum from March 2000 to March 2011, allowing for diachronic analysis. The corpus, after processing, contained 12,540,944 words of running text from 381,880 posts. As Iorio (2009: 129) notes, internet communities are often

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4 Historical rankings collected in 2012 from Alexa, a website which provides analytics for multiple sites, ranked MZEE.com over competitors hiphop.de and rap.de. A comparison graph of mzee.com and hiphop.de in terms of historical rankings show that hiphop.de only overtook mzee.com in March 2009.
demographically lean, as little information is available about participants, and even this information is often unverifiable. An investigation of 50 profiles on the MZEE.com forums falls in line with this observation; only 16 users provided their ages, and those who did were 21–31. Twenty-six of the profiles provided gender information and self-identified as “male.” These self-reported data points are highly suspect, as there would be good reason for younger or female users to hide these facts: I suggest that there is significant disincentive for users under 21 to provide their age, as doing so would increase the likelihood that their contributions would be dismissed on account of their perceived inexperience in hip hop culture. With regard to gender, Herring (2003: 206) notes that women in many online communities “can present themselves so as to minimize discrimination and harassment” by refusing to self-identify as female. What can, in the end, be inferred about MZEE.com users, is that they are German speakers who share an interest in hip hop, and because of the status of hip hop as a youth-oriented musical genre, are likely to be in the teenager-to-young-adult demographic.

A number of anglicisms, or English borrowings, were identified semi-automatically through the use of a customized German-English classifier, a description of which can be found in Garley and Hockenmaier (2012). The list of anglicisms identified included a number with nonstandard orthographies involving <z>, an observation which motivated the present analysis. The MZEE corpus data provides insights into the use of <z> in the German hip hop sphere. Given the direction of transcultural flows (Pennycook 2007a) from the origins of hip hop in the United States to satellite scenes in Germany and other countries, the present analysis benefits from the addition of comparable English-language corpus. To this end, a 19,385,022-word corpus was collected from the Project Covo forums hosted at SOHH.com (Support Online Hip Hop), a US-based English-language hip hop discussion site. The forum posts were collected from a subforum billed as “The place to be for general discussions on Hip-Hop” and includes posts from 2003 through 2011. As of 2012, Alexa.com reported that 64 percent of traffic on the site originated from the United States, with 10 percent coming from Bermuda, 6 percent from the UK, 3.5 percent from India, and less than 3 percent each from all other countries. Similar cleaning and formatting procedures were used with this corpus, which I will refer to as the “Covo” corpus.

Analysis: Orthographic Stylization in the MZEE Corpus

Orthographic variation is often straightforwardly phonological in nature, which is to say that the representation of English “says” as <sez> or “was” as <wuz>, as Preston (1985: 328) notes of “eye dialect,” “reflect[s] no phonological
difference from their standard counterparts.” Instead, respellings like these, according to Preston, “serve mainly to denigrate the speaker so represented by making him or her appear boorish, uneducated, rustic, gangsterish, and so on.” Preston’s discussion focused on the use of these alternative spellings to record the real or imagined speech of others, whether interviewees or fictional characters. Such respellings, however, can also constitute a language user’s own production, and be used as a form of stylization or language play, and, with the proliferation of written communication online, these alternative orthographies have assumed new meanings and roles for their users. Alongside this social dimension of alternative orthography, there is a practical one: in the two examples above, the use of $<$z$>$ can easily be interpreted with the phonetic value [z]. However, the relation of orthography to phonotactics, the correspondence between characters and sounds, is not as straightforward in every case – especially when multiple languages are involved.

The substitution of $<$z$>$ for $<$s$>$, primarily seen in plural English word forms, has been considered a hallmark of hip hop orthography, as mentioned by Paolillo (2001: 190) in his study of an Indian diaspora chatroom. While Paolillo identifies the use of $<$z$>$ as hip hop related, he notes that it “does not necessarily invoke rap in a direct way” and associates the form with a hacker subculture as well, eventually relating the form to a more general vernacular orthography. This more general treatment of $<$z$>$ fits with Androutsopoulos’ (2000) discussion of *grapheme substitution* as a method of stylization in German punk “fanzines,” a genre rich with alternative orthography. As noted above, the substitution of $<$z$>$ for $<$s$>$ in English could in many cases be considered a quasi-phonetic spelling, as in the hypothetical example of $<$dogz$>$ for *dogs*, [dɔgz], but not in others, as in $<$catz$>$ for *cats*, [kæts]. These examples demonstrate the fact that the suffix represented by final $<$s$>$ has two environment-dependent phonetic realizations in English, a voiced [z] when following a voiced segment, and an unvoiced [s] elsewhere.

In investigating the list of anglicisms produced by the German-English classifier used in the MZEE corpus, it was noted that a number of the most frequently-used anglicisms used alternative orthographies, most commonly involving the substitution of $<$z$>$ for $<$s$>$ – in the following examples, the number in parentheses indicates the word form’s rank in the final anglicism list. Examples include $<$beatz$>$ (31st), $<$bozz$>$ (82nd), $<$skillz$>$ (87th), $<$headz$>$ (215th), $<$kidz$>$ (232nd) $<$greetz$>$ (240th), and $<$trackz$>$ (292nd). Most of these examples use $<$z$>$ as a plural suffix, but $<$zz$>$ as a replacement for final $<$ss$>$ is also present. Also found is the form $<$peaze$>$ (95th), where $<$z$>$ substitutes for $<$c$>$, and alternative forms $<$peaz$>$ (259th) and $<$peazen$>$ (261st). While $<$skillz$>$, $<$headz$>$, and $<$kidz$>$ would be realized in English with a phonetic [z], the remainder would be realized with a phonetic [s] by most native
speakers. In the English-speaking world, stylized orthographic forms where a <z> would be realized as [s] like <catz> do occur, such as in the children’s video game series “Petz” or various American radio stations with “Hitz” in their name, but in German the situation is more complex.

In German, the grapheme <z> corresponds to the phoneme /ts/, so as Androutsopoulos (2000: 527) notes in his examination of German punk zines featuring alternative orthographies, “the /z/ pronunciation which is relevant here is imported from English.” To illustrate the situation between languages, I provide here a chart of common orthographic-phonemic correspondences from English and German relevant to the current study.

Turning back to the situation with <z>, the replacement of <s> with <z> in plural forms borrowed from English is found with regularity in the MZEE corpus, for example with the form beatz, which occurs 1,826 times in the corpus. By comparison, the standard plural form beats occurs 9,654 times, about five times more often. The high frequency of beatz (which is the 31st most common English borrowing in the corpus), however, indicates that it is in fact an established alternative form.

This observation spurred a wider investigation in which a set of all words ending in <z> were pulled from the MZEE corpus, automatically ignoring known German forms like trotz “despite” and schmerz, “pain.” From this set of words, those that had a relative corpus frequency over or near one in one million (those occurring over 13 times in the corpus – and thus less likely to be one-off forms or errors) were hand-coded into several categories. Word forms occurring in names of known artists and albums from earlier compiled lists were automatically excluded.

Table 5.1 Orthographic-phonemic correspondences in English and German

<table>
<thead>
<tr>
<th>English</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;z&gt; → /z/</td>
<td>&lt;z&gt; → /ts/</td>
</tr>
<tr>
<td>&lt;s&gt; → /s/</td>
<td>&lt;s&gt; → /z/ (prevocally), /s/ (elsewhere)</td>
</tr>
<tr>
<td>&lt;c&gt; → /s/ or /k/</td>
<td>&lt;c&gt; → ??? (does not occur in native German forms except in di/trigraphs &lt;ch&gt; and &lt;sch&gt;)</td>
</tr>
<tr>
<td>&lt;ts&gt; → /ts/</td>
<td>&lt;ss/ß&gt; → /s/</td>
</tr>
</tbody>
</table>

Note here that <c> does not, by itself, represent a phoneme in native German words, occurring only in the orthographic digraph <ch> → /ç/ or /x/ and the trigraph <sch> → /∫/. In certain loanwords, <c> can have the value of /s/, as in City or Service, but this is among other imported values like /ts/ and /k/ and is in any case not a productive orthography in Standard German.
Taking those forms identified as English noun plurals (rather than third person verbs, German forms with spurious <z> endings, which I will deal with presently), frequencies relative to corpus size (frequency per million words) were calculated for the form ending in <z> and the form ending in <s> in the MZEE corpus and the Project Covo (US-English) corpus for comparison. Ratios of <z> to <s> for each word form were then calculated, but forms that did not have a frequency greater than one in one million in both <z> and <s> forms in both corpora were excluded. This yielded a list of 30 nominal stems. It was also necessary to make sure that the words under consideration were choice-based or intentional usages. As an example, evez was excluded because a sample of 50 usages of evez in context were references to the 1996 2Pac album and song “All Eyez on Me,” and thus did not represent a stylistic choice to use a <z> plural. Samples of all 30 stems were considered in context, and those that were used as part of an artist or song title over ~25 percent of the time, being obligate uses, were discarded, leaving 17 plural forms. The forms were then divided according to whether the plural <s> would be produced phonetically as an [s] or as a [z] in Standard English. The results are presented in Tables 2 and 3. The values in columns 2–5 are relative frequencies (incidence per million words in each corpus), and are comparable row-wise. The final row contains the mean ratio of <z>:<s> in each case.

In almost every case, the <z> form is used less frequently than the <s>, but still at a rate of over one word per million, suggesting its status as a deliberate alternative orthography. For all of the forms in Tables 2 and 3, taken together, the mean ratio of <z> to <s> in the MZEE corpus is 0.26:1, whereas it is 0.02:1 for the Covo corpus. A paired t-test comparing the listed forms revealed that the difference in average ratio for the German and English corpora is statistically significant (p = 0.01). What these data
show is that there is a consistently higher usage of the alternative orthography <z> in the German hip hop forums than in the American forums – compared to the <s> forms, <z> forms are used over ten times more frequently by the German hip hop fans. The only word, in fact, where the <z>:<s> ratio is higher in the US corpus than in the German corpus is jamz, and upon investigating a sample of uses in context (this was done pre-analysis only for the German corpus) it appears that it is very heavily used in reference to the song “Slow Jamz” by Twista, which perhaps did not enjoy the listener market penetration in the German-language scene that it did in the United States.

This observation connects to research on alternative orthographies in text messaging (in this case understood to include an array of features from abbreviations to respellings and number/letter substitutions) by Deumert and Mesthrie (2012: 557). In seeking a basis for comparison of South African usage of orthographic variables in SMS data, the authors meta-analyze studies on US and UK orthographic variables, noting that “unlike their peers in the Global North, South African texters have extended the norms of usage and employ this new orthography at frequencies that are unlike those reported for ‘inner circle countries’.” German hip hop fans, then, likewise appear to be engaging in orthographic <z> substitution at significantly higher levels than American fans.

Table 5.3 Word stems with a plural produced phonetically as [z], relative frequencies (per million words) and ratios of <z> to <s> in the MZEE and Covo corpora

<table>
<thead>
<tr>
<th></th>
<th>MZEE &lt;z&gt;</th>
<th>MZEE &lt;s&gt;</th>
<th>Covo &lt;z&gt;</th>
<th>Covo &lt;s&gt;</th>
<th>MZEE ratio</th>
<th>Covo ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>skill</td>
<td>68.26</td>
<td>67.22</td>
<td>20.43</td>
<td>116.12</td>
<td>1.02 : 1</td>
<td>0.18 : 1</td>
</tr>
<tr>
<td>head</td>
<td>30.14</td>
<td>55.26</td>
<td>4.02</td>
<td>143.72</td>
<td>0.55 : 1</td>
<td>0.03 : 1</td>
</tr>
<tr>
<td>kid</td>
<td>18.50</td>
<td>144.89</td>
<td>3.15</td>
<td>301.83</td>
<td>0.13 : 1</td>
<td>0.01 : 1</td>
</tr>
<tr>
<td>style</td>
<td>10.61</td>
<td>85.48</td>
<td>1.70</td>
<td>142.07</td>
<td>0.12 : 1</td>
<td>0.01 : 1</td>
</tr>
<tr>
<td>record</td>
<td>6.78</td>
<td>243.04</td>
<td>1.14</td>
<td>253.75</td>
<td>0.03 : 1</td>
<td>&lt; 0.01 : 1</td>
</tr>
<tr>
<td>gangsta</td>
<td>5.66</td>
<td>14.35</td>
<td>2.79</td>
<td>20.53</td>
<td>0.39 : 1</td>
<td>0.14 : 1</td>
</tr>
<tr>
<td>hoe</td>
<td>4.39</td>
<td>20.17</td>
<td>2.22</td>
<td>81.35</td>
<td>0.22 : 1</td>
<td>0.03 : 1</td>
</tr>
<tr>
<td>thug</td>
<td>3.51</td>
<td>19.14</td>
<td>3.35</td>
<td>57.31</td>
<td>0.18 : 1</td>
<td>0.06 : 1</td>
</tr>
<tr>
<td>jam</td>
<td>2.15</td>
<td>81.17</td>
<td>4.08</td>
<td>13.98</td>
<td>0.03 : 1</td>
<td>0.29 : 1</td>
</tr>
<tr>
<td>new</td>
<td>1.20</td>
<td>79.02</td>
<td>2.43</td>
<td>175.14</td>
<td>0.02 : 1</td>
<td>0.01 : 1</td>
</tr>
<tr>
<td>star</td>
<td>1.12</td>
<td>28.07</td>
<td>1.55</td>
<td>85.48</td>
<td>0.04 : 1</td>
<td>0.02 : 1</td>
</tr>
<tr>
<td>hater</td>
<td>1.12</td>
<td>5.1</td>
<td>1.34</td>
<td>77.90</td>
<td>0.22 : 1</td>
<td>0.02 : 1</td>
</tr>
<tr>
<td>mean ratio z:s</td>
<td>0.24 : 1</td>
<td>0.07 : 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
While the use of \(<z>\) by native speakers of English in voiced contexts can be motivated phonetically, the use of \(<z>\) in unvoiced contexts suggests an aesthetic or stylistic explanation. In a study of American hip hop forum discourse, Beers-Fägersten (2006: 40) finds that “final -z is also used to substitute for the inflectional morpheme /s/, even when the phonological environment would not cause voicing.” In the case of Androutsopoulos’ (2000: 527) German punk zines, he writes that in cases where an orthographic-phonemic correspondence is not present (for example, in considering the use of \(<x>\) for \(<s>\) in the band name H-Blockx):

The crucial motivation for these spelling variants is not phonetic representation, but their indexical or symbolic value as cues of subcultural positioning. In other words, they act as an instruction to interpret the discourse as “subculturally engaged” or “hip.” The relatively more frequent usage of alternative \(<z>\) in the MZEE corpus, especially where English phonotactics favors an \(<s>\), does suggest that stylization is a contributing motivation for this type of variation. However, the last rows of Tables 2 and 3, taken together, tell another interesting story: The average \(<z>:<s>\) ratio for the American corpus for words phonetically produced with an [s] plural ending is 0.02 : 1, and with a [z] plural ending, 0.07 : 1, indicating that the “phonetically sensitive” use of \(<z>\) is about three and a half times more frequent than the “phonetically insensitive” use of \(<z>\). For the German data, the ratio for words phonetically produced with an [s] plural ending is 0.30 : 1, and with a [z] plural, 0.24 : 1. While the low number of data points prevents inferential statistical analysis, I suggest that there is an element of phonetic consideration when using \(<z>\) for English speakers, but that this element is obviated in the German context.

A likely reason for this difference is found in German phonology, and this factor may make the choice of \(<z>\) especially attractive in the German context. Word-final devoicing, or fortition, is a productive phonological rule in German whereby voiced stops and fricatives become voiceless word-finally (Fagan 2009: 23). To a German speaker, any word ending in the phoneme /z/ would be realized phonetically as [s]. While the grapheme \(<z>\) in German would represent /ts/, \(<z>\) in English represents /z/. German hip hop fans could, then, be choosing the English value /z/, applying word-final devoicing from German to make the choice of word-final orthographic \(<z>\) or \(<s>\) equivalent. In this case, regardless of whether an English borrowing ends in an orthographic \(<z>\) or \(<s>\), the pronunciation would in any case be [s]. Phonetic realization, then, plays a role in this spelling variation, with the subcultural positioning afforded by the orthographic choice of \(<z>\) as a sort of bonus. This is supported by previous findings in Garley (2014) that (in the same corpus) word-final devoicing contributes to the felicitous extension of the \(<ed>\) orthographic suffix to verb forms beyond the third person singular, functioning like \(<t>\) for borrowed
English verbs. The interaction of rules from multiple systems, then, make <z> a more attractive option to German hip hop fans.

Moving beyond the notion that phonetic representation is not the only influence on digital (or subcultural, cf. Androutsopoulos 2000) writing, the very idea that writing primarily represents or corresponds to speech has been called into question in some recent sociolinguistic work on digital communication. As an example, Deumert and Lexander (2013: 533) find that in South African SMS practice, the grapheme <d> is substituted for <th>, yielding forms like <dat> for “that,” even though the pronunciation of /th/ as [d] is “not a salient feature of spoken varieties of English [in South Africa].” While similar practices in Nigeria and Ghana can be tied to features of West African Pidgin, the authors attribute the use of <d> in South Africa to globalized norms which surround digital writing, and which “evoke globally-mediated African American styles of speaking (popularized via hip hop, movies, adverts and television series).” This case holds many similarities to the orthographic alternative <z> considered here – in particular because the grapheme in question is, in both cases, not expected in the context of the relevant spoken language. There is, though, still a very prominent link from speech to writing which is demonstrated by the fact that, in both cases, not just any grapheme can be substituted, and the grapheme chosen represents something phonetic about the word, albeit to a lesser degree of precision. First, <z>, which represents /ts/ in German, would not be as confusing to a German reader expecting an <s> plural as, say, the substitution of <n> or <p> or <q> would be, because /ts/ contains /s/. Consider <*beatn>, <*beatp>, or <*beatq> as graphical representations of the loanword “beats.” None is felicitous or especially interpretable, save for the first, which looks like an infinitive verb. In the case of South African texters using <d> rather than <th>, the move is from a digraph representing a coronal fricative to a single character representing a coronal stop – the correspondence of the grapheme to the phonetic form is indeed relaxed, but certainly not missing. An <e> or <w> or <k> would be an extremely unlikely substitute for <d> in <dat>; “that.”

Several of the forms excluded from the earlier analysis are worth additional examination. As an example, greets “greetings” was found 45 times in the MZEE corpus, while alternative orthography greetz was found 345 times. Neither form is in widespread use in the English-speaking hip hop community,

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6 Also relevant here is the case of pwn, a term popularized in the early 2000s in internet gaming communities. The origin of the form is debated, but a general consensus has it as a typo for own which then took on an ironic intentional usage, and it has the same denotation of dominating/humiliating an opponent (in a videogame). While the graphemic alternation involved, from <o> to <p>, would argue for a complete disregard for phonetic correspondence, the crowdsourced pronunciations at Urban Dictionary [www.urbandictionary.com] as of November 7, 2015 indicate that with few exceptions, speakers pronounce the word as [poon].
as *greets* is found ten times in the larger Project Covo corpus (likely to have more German visitors than MZEE has US visitors due to the directionality of transcultural flow) and *greetz* is not found there. One can compare the use of *greets/greetz* in the German hip hop community to the case of Ger. *Handy “cell phone,”* whose origins were likely with the early term *handset.* Interestingly, the stylistically playful version with the <z> was found several times more frequently than the version with <s>, and while no additional orthographic play was found with *greets,* the forms *greetzzz, greetzky,* and *greetze* are all found in the MZEE corpus. In addition, the form *greez* subsumes the <t> under the <z>, which is made possible by the <z> → /ts/ correspondence in German, and this is then further re-analyzed as a singular form and given the English <es> plural as *greezes*:

1. Yo, fedde greezes erstmals an alle Hopper da draussen, und natürlich an alle Tagger, Sprayer...
   
   “Yo, phat ‘greezses’ first to all hip hoppers out there, and naturally to all the taggers and sprayers...”

This doesn’t go without comment. In a following post quoting the original, another user mocks the first author with an extremely stilted and over-the-top alternative orthography.

2. >“Yo, fedde greezes erstmals an
   >alle Hopper da draussen, und natürlich an alle
   >Tagger, Sprayer...”

   ey yo vedde grietings gähen surügg an [username]. yo.
   “ey yo phat greetings go back to [username]. yo.”

This second post includes exaggerated nonce orthographies like *vedde* for *fedde* (for *fette,* “fat”), *grietings* for English *greetings,* *gähen* for *gehen,* “go,” and *surügg* for *zurück,* “back.” This, and the analysis of *peace/peaze* later in this chapter, supports the notion that greetings and leave-takings, often not integrated into the syntax of the surrounding discourse, are a particularly popular site for stylization and language play, although not in an untested way.

The influence of the stylized English <z> plural is not restricted to English borrowings. German roots contribute to <s>/<z> plural forms, which do not appear in the earlier analysis because they are not found in the US corpus, are *jungs / jungz* “boys,” *mädels/mädelz,* “girls,” and *leuts/leutz/leuz,* “people.”

The forms on the last row of Table 4 are the standard plurals for each of these words; in the case of *Jungen,* the standard form is almost always used only when referring to male children, rather than the extended use of “boys” as male teenagers or adults. The forms *Jungs* and *Mädels* are not due to English
influence. They are more commonly used in Central and North Germany (the Southern form would be Mädeln). As common colloquial forms they are understood throughout Germany. However, their use in this context (especially with the <z> plural) could be reinforced through English influence. Leuts/Leutz/Leuz is a more obvious case of language play, as the corpus counts show these forms to be relatively low-frequency alternatives. In this case, the forms function as a spurious English-influenced plural for Ger. Leute “people,” a word with no singular form. Here, the <s> plural (which is the least frequent plural in German, but is considered the “default”) is substituted for the <e> plural in the original German form. The <s> is then further replaced by <z>, and then (perhaps influenced by the <z> → /ts/ orthographic-phonemic correspondence) the <t> is subsumed under the <z> in leuz. Further confirming the association of <z> with language play, leutzz, leutzzz, leutz, and leutez are all attested in the corpus, while no alternative forms involving the <s> orthography are found. The next case to be examined will revisit the use of <z>, providing more evidence of the role that word-final devoicing plays in loanword orthography.

Analysis, Part 2: Morphological Adaptations and Hybridization of Stylized Lexemes

While it is likely that the practice has its origins before hip hop culture’s genesis, the use of peace as a formulaic greeting or leave-taking can carry “specific hip-hop semantics” (Beers-Fägersten 2006: 28). Smitherman (2006: 36) characterizes its use as “Greeting or farewell; originally to indicate uplift, self-love, Black social consciousness.” Kearse (2006: 418) includes it in his dictionary of “hip hop and urban slanguage,” as a “term of affection used when greeting, departing, or ending a verbal or written communique with someone. Ex: ‘Peace Dawg, how you?’ ‘Until we see each other again peace.’” In the MZEE forum, peace and its variants seem to be narrowed to
the leave-taking function, but it is found in a large array of orthographic forms: peace (7,855 hits), peaze (799 hits), peaz (321 hits), as well as peacen, peece, peeze, peez, peecn, peeze, peesen, peasze, piezen, piis, piiz, piizn, and a wide range of of idiosyncratic but systematically variant forms where one or more characters in the above choices is repeated, as in, for example, peeeeeeeeieeeeeeeuelllleeeeennnnnn. In addition, morphologically extended forms like peazen, peacen, peezn, peesen, piezen, piizn, peacigen, peacesen, peaciano, and peacenskofsky are also attested in the MZEE corpus. This single-word leave-taking, then, is a favored site for stylization or language play by the users of the MZEE forum. In terms of relativized frequency, peace is found much more frequently in MZEE (628.4 peace per million words) than in the Covo forum (94.5 peace per million words), indicating that after the form was borrowed from the English-speaking hip hop community, it is used much more heavily in the German community. In a sample of 50 instances of peace in context from each forum, only 20 were leave-takings in the Covo forum, with the remainder being use of the word as a noun in sentence contexts (use as a greeting was not seen in this sample) but 49/50 were leave-takings in MZEE, indicating that the word form is borrowed in this community almost exclusively in its discourse function. Users’ knowledge of both German and English orthographic-phonemic mapping is also evident – taking the base form as phonologically /pi:s/, the forms with orthographic <ee> display knowledge of a common English representation of /i:/; the forms with orthographic <ii> playfully combine this vowel duplication with the German grapheme for /i/, which is <i>, while avoiding the interpretation of <i> as /ɪ/ (which <i> would represent in a monosyllabic word like mit, “with.”)

The orthographic <z> appears in the relatively common alternate form peaze and others like peazen (apparently including either an infinitive German morpheme -en or a plural morpheme -en, but see further discussion below) and peaz. Through the influence of German orthographic-phonetic norms, the final <e> is dropped in this case.

A common addition to the base form in the above examples warrants further discussion, and provides a further clue to the imagined phonological value of <z>. Forms like peacen, peazen, piizen, seesn, and so forth seem to involve the addition of a syllabic (-e)n to the end of the word. This quasi-suffixation could represent a plural or an infinitive verb ending, as <en> has both roles in German. However, an exchange from the forum sheds light on the morphological status of this suffix:

3a. Wer hilft mir, dass das wort “josen” (bzw. yosen) eingeführt wird?

“Who’ll help me introduce the word ‘josen’ (or yosen)?”
3b. das gibts doch bestimmt schon irgendwo wird ja bei vielen wörtern die endung rangehängt wie bei bis densen, peazen, moinsen usw.

“That’s got to be out there somewhere already, this ending is added to many words like bis densen, peazen, moinsen, etc.”

In (3a–b), an MZEE.com user wishes to use introduce the word *josen* or *yosen*, which would be the combination of the hip hop *yo* (or the colloquial German *jo*, “yes”) with the nonsense suffix *-sen*. The first response is from another user who notes that this *-sen* suffix is already applied to several greetings and leave-takings like *bis dann* “until then” > *bis densen, moin* [regionally] “[good] morning!” or “hello!” > *moinsen*, and, crucially, *peace > peazen*. The inclusion of *peazen* in parallel with the other examples in this post suggests that *peazen* is morphophonologically /pi:s/ + /sen/, further supporting the claim that orthographic *peaz(e)* is phonologically interpreted as /pi:s/ rather than /pi:z/ or /pi:ts/ or another alternative.

In 2010–2011, I conducted a number of ethnographic interviews with German hip hop fans in Hamburg; these interviews and ongoing research (like these findings on <z>) often led to follow-up questions online with various contacts in the German hip hop scene. “Georg,”7 in October 2011, was a university mathematics student, hip hop radio-show host, and occasional MZEE forumgoer, was a native-speaker consultant in this capacity. I asked Georg at that time whether he thought <peazen> was an instance of the *-sen* suffix. His response:

4. Genau wie du es sagst. Das “-sn” ist eine norddeutsche Regiolect/Dialekt-Endung. Und irgendwie ist der norddeutsche Sprachgebrauch “cool”, weil lässig, oder sowas. Bayrisch/Sächsisch wäre da nicht denkbar! Und da hängt man halt mal “-sn” hinten dran und hat was Plattdeutsches, bzw was cooles. Ich denke, das geht in die Richtung eures “whuzzp”~ “watsn losn?” das liest man manchmal [...]  

“It’s just as you say. The ‘-sn’ is a North German regiolect/dialect suffix. And somehow, North German language use is ‘cool’ because it’s laid back or something. Bavarian/Saxon would be unthinkable there! And there one just hangs ‘-sn’ at the end of something has something Plattdeutsches, and something that’s cool. I think it’s something like your ‘whuzzp’~ ‘watsn losn?’ One reads that sometimes, even if ‘moinsn’ is surely the most popular [...]”

Georg also wrote this when asked about the pronunciation of <peace> and <peaze>:

7 a pseudonym.

“They’re all pronounced the same. Whether ‘c’ or ‘z’ is just a question of taste, or of coolness. ‘z’ is somehow a digital character of the new generation. ‘z’ is also used often in the realm of software piracy (‘warez’), but also in English (‘whuzzup’). Why – no idea. Possibly to distance oneself somewhat from normal language use.”

These statements from a non-linguist hip hop fan (but an academic, and someone who obviously thinks quite a bit about language) reveal both metalinguistic knowledge and thought about the use of <z> in multiple languages. Georg finds variant uses of <z> to iconize youth culture (“the new generation”) in the sense described by Sebba (2015), drawing on Irvine and Gal (2000) – this orthographic character has become an iconic representation of a particular group. It is interesting that <z> in <peaze> is not directly noted as an English form, as Georg notes that <z> is “also” used in English. To Georg, <z> in this context has acquired a local meaning – one not reliant on, but clearly influenced by, its English origins. German hip hop fans’ extension of <z> to forms like <peaze>, which are not clearly attested in English hip hop usage, is a local instantiation of a global style – simultaneously individual and collective. Fans in this domain are not merely reproducing forms from the English-speaking culture, but stylizing, playing with, and making them their own.

Idiosyncratic capitalizations are another indication of this phenomenon; while the quantitative analyses of the MZEE forum largely ignore capitalization, an in-depth investigation of peace/peaze in the MZEE corpus found that certain users favored idiosyncratic capitalizations. PEacE, for example, was used 25 times in the MZEE corpus; 23 of these uses were by the same user, as a sort of signature leave-taking:

6. luda is echt fresh, rapt halt voll hardcore mäßig!! PeacE!

“luda[cris] is really fresh, he just raps completely hardcore!! PeacE!”

In another case, the orthographic <z> was emphasized through capitalization. The form peaZe was found 75 times in the corpus, with the first 23 uses attributed to a single user. This capitalization then seems to have spread to other users.
7. \[\ldots\]\(\text{ausserdem ist heutzutage fast jeder “grosser”}\) 
Rapper bei Top of the Pops, The Dome, siehe Azad
+ Kool Savas, aber natürlich ist das COOL wenn die
da auftreten, gel? mein Beitrag dazu

\[\text{peaZe up!}\]

\[\text{[username]}\]

\[\ldots\]and what’s more, today almost every ‘big-time’ rapper is on Top
of the Pops, the Dome, Look at
Azad + Kool Savas, but naturally it’s COOL when
they appear there, ain’t it? that’s my input

\[\text{peaZe up!}\]

\[\text{[username]}\]

This use of idiosyncratic capitalization as a kind of personal emblem or
signature language practice to underline the use of a borrowed leave-taking
as a special stylistic resource involves the application of creativity (within
certain boundaries) in a playful way.

\textbf{Discussion and Conclusions}

This examination of the language-contact situation among youth in the German
hip hop scene online yields several major findings. First, \(<z>\) is used as an
alternative orthographic choice in both English and German contexts. While it
is not unique to hip hop, it does carry, as Androutsopoulos (2000) notes,
a subcultural indexicality, and this is used to a much greater extent in the
German than the American hip hop scene. In addition, rather than simply
copying words from English to German, the borrowing process in the
German hip hop community is revealed to involve complex knowledge of
orthographic, phonological, and morphological rules from both English and
German, as evidenced by the interaction of the English orthographic-phonemic
correspondence \(<z> \rightarrow /z/\) and German word-final devoicing in forms with
final \(<z>\). Second, greetings and leave-takings like \textit{greets} and \textit{peace} are
particularly fertile sites for stylization and language play, and likely to be
favored targets for borrowing. This bears further research; I noted here that
elements like \textit{leuts} “people” and \textit{jungs} “boys” are also orthographically
manipulated for stylistic purposes, and it is intriguing that these often play
a role as vocatives in discourse, i.e. as elements which, like greetings and leave-
takings, often do not participate in larger syntactic structures, fulfilling dis-
course rather than grammatical functions. Finally, the variation found in the
formulaic leave-taking \textit{peace} in the German hip hop scene appears to be
a stable situation with heavy preference given to the standard English orthographic form *peace*. The form of the variants *peaz*, *peaze*, and *peazen*, which are relatively frequent when compared against other alternatives, are best explained by the adoption of the English value /z/ for orthographic `<z>`, but with a twist: the /z/ follows the German phonological rule of word-final devoicing, yielding the form [piːs] in both cases. Essentially, the application of a combined set of English-German orthographic-phonetic norms and phonological rules allows for a more diverse array of alternate, stylized forms – `<peaze>` appears nowhere in the Covo corpus.

There is some criticism of the notion that digital writing is beholden to phonological concerns; Deumert and Lexander (2013: 535) suggest that “digital writing . . . needs to be studied on its own terms, and not as a reflection of the spoken language.” This statement is in many respects true, as the unique and diverse contexts of digital writing, which are “both technical and social”, as Herring (2007: 1) notes in her approach to classifying computer-mediated discourse, are key to understanding digital writing. However, digital writing must to some extent be shaped by phonological concerns. There cannot exist a complete lack of systemic correspondence between speech and writing. German hip hoppers, by virtue of a phonological feature of their first language and a variable knowledge of English as a foreign language, are more likely than American fans to do things like produce `<peaze>` as a stylization and, as I demonstrate in Garley (2014), use the suffix `<-ed>` anywhere German phonology suggests a `<-t>` suffix. Stylization in digital writing often involves the extension, combination, and relaxation of required correspondences between phonology and orthography, and the multilingual context of German hip hop fandom affords these language users a broader palette with which to employ language creatively. But, as a general rule, written language cannot, or does not, ignore the spoken form entirely. In the case of `<peaze>`, the graphemes that can felicitously appear in the terminal pronounced position in the word are constrained to a small set, including `<c>`, `<s>`, and `<z>`. An additional possibility would be `<x>`, which is a very relaxed grapheme in terms of its phonetic correspondences for various reasons, perhaps because it is, across many cultures, the prototypical mathematical variable. Garley and Slade (2016) discuss the usage of `<x>`, for example, to represent part of the word “cyberpunk” in the digitally written form `<cypx>`. Returning to `<peaze>`, many other options are right out. Anything beyond a small set of graphemes related in their possible phonetic realizations risks too much misinterpretation or confusion. In written language stylization in

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8 This observation would also hold for SignWriting used with a signed language as a writing system.
the digital domain, users are, in theory, only constrained by technology (input devices and software) in their choice of graphemes and symbols for meaning-making; in fact, a large amount of meaning is made non-linguistically, for example by using emoji. But to convey and interpret ideas through language, both writer and audience must have a common basis on which to identify the words being used – and that crucially constrains the realistic possibilities for stylization in most cases to graphemes that could conceivably correspond to the phonetic forms being used. In summary, these results serve to illuminate language practices which are emerging from an asymmetrically multilingual, subcultural domain in which digital engagement is central – illustrating not only extreme instances of language stylization, but also the natural boundaries and limitations on language play.