

Co-Occurring Attributive Adjectives in German: Presenting a Special Case of Alternations of Strong and Weak Inflections

Christa Beaudoin-Lietz, John L. Plews

This article investigates one of the remaining issues of adjective inflections in German: alternations of strong (ST) and weak (WK) inflections on the second of two unpreceded attributive adjectives, specifically in the Dative (DAT) Masculine (MASC) and Neuter (NEUT) Singular (SG). It discusses this special case of inflections on co-occurring attributive adjectives in the contexts of grammar reference works, corpora, and textbook instruction. Inflection on attributive adjectives is a major topic for German as a foreign language (GFL) teachers and students. Much classroom time, from basic through proficient levels, is devoted to teaching, reviewing, and accurately applying the general grammar rules of ST and WK inflection according to whether the attributive adjective is unpreceded or preceded by a determiner. As with almost all aspects of GFL instruction in schools and colleges, the teaching and ongoing practice of adjective inflection occur in the context of a syllabus shaped largely by the textbook selected for the language course. While textbooks can never cover every grammar point, our analysis raises questions about the degree to which GFL textbooks “tell the truth” (Swan, 1994) about adjective inflections. Indeed, we show that the textbook explanation and practice of attributive adjective inflections concerns mostly instances of a single adjective. Students across all proficiency levels have less opportunity to learn about the inflections of two or more co-occurring attributive adjectives and none to discover alternations, an issue that causes insecurity even among native speakers (e.g., see threads concerning inflection of co-occurring attributive adjectives with DAT MASC / NEUT SG on [duden.de](#), [gutefrage.net](#), [korrekturen.de](#), and [kurzefrage.de](#)). We contest that this oversight, even if to do with a seemingly trifling aspect of one point of German grammar, can be rectified by GFL instructors even while teaching at the basic levels, for the intake of language structures does not necessarily correspond with proficiency levels or the sequencing of complexity (Ziemer Andrews, 2007).

Introduction

This article investigates one of the remaining issues of adjective inflections in German: alternations of strong (ST) and weak (WK) inflections on the second of two unpreceded attributive adjectives, specifically in the Dative (DAT) Masculine (MASC) and Neuter (NEUT) Singular (SG). It discusses this special case of inflections on co-occurring attributive adjectives in the contexts of grammar reference works, corpora, and textbook instruction. Inflection on attributive adjectives is a major topic for German as a foreign language (GFL) teachers and students. Much classroom time, from basic through proficient levels, is devoted to teaching, reviewing, and *accurately* applying the general grammar rules of ST and WK inflection according to whether the attributive adjective is unpreceded or preceded by a determiner. As with almost all aspects of GFL instruction in schools and colleges, the teaching and ongoing practice of adjective inflection occur in the context of a syllabus shaped largely by the textbook selected for the language course. While textbooks can never cover every grammar point, our analysis raises questions about the degree to which GFL textbooks “tell the truth” (Swan, 1994) about adjective inflections. Indeed, we show that the textbook explanation and practice of attributive adjective inflections concerns mostly instances of a single adjective. Students across all proficiency levels have less opportunity to learn about the inflections of two or more co-occurring attributive adjectives and none to discover alternations, an issue that causes insecurity even among native speakers (e.g., see threads concerning inflection of co-occurring attributive adjectives with DAT MASC / NEUT SG on [duden.de](#), [gutefrage.net](#), [korrekturen.de](#), and [kurzefrage.de](#)). We contest that this oversight, even if to do with a seemingly trifling aspect of one point of German grammar, can be rectified by GFL instructors even while teaching at the basic levels, for the intake of language structures does not necessarily correspond with proficiency levels or the sequencing of complexity (Ziemer Andrews, 2007).

In order to make the case for a more comprehensive treatment of adjective inflections in the GFL classroom, which includes the alternations of ST / WK inflections on the second of two unpreceded attributive adjectives, we first review the standard accounts of inflection of such co-occurring adjectives in grammar reference works. We refer specifically to the Duden, since it is the most widely recognized standard reference work for the German language. Then we confirm the occurrence and frequency of various examples of alternations in language in use by means of a corpus analysis and basic internet searches. We refer to the corpus accessible through Wortschatz Portal Universität Leipzig (Deutscher Wortschatz, 1998-2008), since it is one of the largest and contains a wide variety of language samples. Given the frequency of alternation that we discover, we then explain a possible functional reason for the alternation by comparing minimal pairs of examples. Then we analyze the six GFL textbooks that are currently the most frequently used at Canadian universities for their provision of explanations and practice opportunities regarding adjective inflections, paying particular attention to the number and kind of inflections elicited. We follow the textbook treatment of adjective inflections with our own suggestion of a constructivist pedagogical approach in that students undertake their own corpus analyses in order to discover the rules for themselves. Thus our investigation aims to show that alternations of inflection on co-occurring attributive adjectives is by no means as rare as it is thought to be, that the treatment of the inflection of co-occurring adjectives in GFL textbooks is incomplete, and that instructors can encourage students to gain a broader understanding of adjective inflection in a motivating manner.

Background: General patterns

Most, though not all, attributive adjectives in German carry inflections. We only discuss inflected attributive adjectives, not uninflected adjectives or adverbs. Furthermore, we are concerned particularly with DAT MASC and NEUT SG since those are the main instances, though not the only ones, where the alternations in inflection in the second of two (and third of three, etc.) unpreceded attributive adjectives may occur.

Table 1: Strong inflections on single attributive adjectives



When adjectives are unpreceded, they carry ST endings (see Table 1). The inflections mark the case, gender, and number of the noun that follows. Inflectional endings on adjectives following the indefinite article *ein-*, *kein-*, and possessive determiners vary depending on whether or not the determiners carry any marking. These are sometimes described as a *mixed* paradigm. When preceded by determiners with marking for case, gender, and number (e.g., the definite article 'der'), the WK inflections occur on the following attributive adjective and further adjectives as well (see Table 2). Thus "Determiniertheit," agreement with the noun, is expressed once in the determiner phrase (DP). For WK forms, there are basically two inflectional endings: The *-e* is found in the Nominative (NOM) SG of all three genders and in the Accusative (ACC) NEUT and Feminine (FEM). All other forms end with *-en*. In contrast to the attributive adjectives with ST inflectional endings (see Table 1), those with WK inflectional endings cannot occur without a determiner in modern German except in certain contexts, for example, in appositions after personal pronouns such as in the NOM plural (PL) (Duden 2005, p. 996).

Table 2: Weak inflections on co-occurring attributive adjectives



A general pattern can also be stated for inflections of co-occurring attributive adjectives. The general principle is that two or more descriptive adjectives which modify the same noun take the same inflection. Example (1) illustrates strong inflections on unprecedented adjectives:

1. **Guter starker Kaffee**      *Good strong coffee* [2]

When several attributive adjectives are preceded by a determiner that indicates case, gender, and number, as in example 2, the determiner carries strong inflections, while adjectives carry weak inflection.

2. Der **gute starke** Kaffee      *The good strong coffee*

Example 3, retrieved from the Wortschatz Portal (Universität Leipzig) ("italienischem," 21 July 2008, 11:51), provides a series of three unprecedented co-occurring attributive adjectives in the DAT MASC SG. All of the adjectives carry strong inflections.

3. "Auf den Teller gibt es kalifornische Küche mit **asiatischem, italienischem und mexikanischem** Einschlag..." (berlinonline.de, 3 Sep. 2005)

*Onto the plate there appears Californian cuisine with Asian, Italian, and Mexican flair...*

#### Alternation in inflections of co-occurring unprecedented attributive adjectives

A further pattern of alternation of inflection of co-occurring attributive adjectives exists in addition to the foregoing general pattern of sameness. When two unprecedented attributive adjectives in the DAT MASC and NEUT SG co-occur, speakers seem to have a choice between the ST and the WK inflection on the second attributive adjective, as the following examples from Duden (2005, p. 974) show:

4. "Er verstarb nach **langem schweren** Leiden;"      *He passed away after long [and] severe suffering.*

5. "Er verstarb nach **langem schwerem** Leiden."      *He passed away after long [and] severe suffering.*

According to the Duden (2005, p.370), the second choice for this combination as in example 5 is preferable in Standard German. Nevertheless, the Duden acknowledges speakers' uncertainty whether to use ST or WK forms in certain instances. The tendency to use WK forms rather than ST forms in certain constructions with the DAT MASC / NEUT SG is mentioned. Indeed, alternations for the DAT MASC / NEUT SG have been acknowledged in successive editions of the Duden (1973, 1984, 1998, 2005).[3] The following examples retrieved from the Wortschatz Portal (Universität Leipzig) ("gutem," retrieved 29 July 2008, 20:59) show further evidence of alternation in contemporary discourse:

6. "Nach **gutem altem** Brauch steht das Hochzeitspaar nach der Zeremonie im Reisregen..." (welt.de, 4 June 2005)"

*According to good old tradition the bride and groom stand in a hail of rice after the ceremony.*

7. "... und das ist nach **gutem alten** Brauch der Monat, in dem sich Verein und Trainer Lebewohl sagen." (welt.de, 21 March 2005)

*... and that is according to good old tradition the month in which the club and the trainer say farewell.*

As Durrell (2002, p. 130) points out, while the weak inflections are "considered incorrect by some authorities," they do occur for the DAT MASC and NEUT SG. In our view, acknowledgement and raising awareness of the alternations may contribute to a GFL learner's comprehension of the system of adjective inflections in German.

#### Corpus analysis of co-occurring unprecedented attributive adjectives

In order to determine the relative frequency of the alternations in attributive adjective inflections, a corpus analysis of 15 of the most common attributive adjective strings was conducted,

whereby the adjectives were selected from the 25 most common adjectives (vistawide.com, 2004-2009). As the source for the corpus analysis, we used the Wortschatz Portal Universität Leipzig, which is based on a collection of selected written texts from broadcast news services and newspapers with a variety of registers.

## Method

We entered a search for forms with *-em* (DAT MASC and NEUT SG), eliminating any adverbial or other uses and obvious typographical errors (e.g., "in diesem kleinem bayrisches Dorf" in *this small Bavarian village*, which in Standard German is "in diesem kleinen bayrischen Dorf"). We checked the entries visually to ascertain whether they contained two or more attributive adjectives. Then we identified the inflections according to whether they were ST or WK. As Table 3 shows, we also counted the number of adjectives in order to provide information concerning ratios. The total numbers are the total occurrences of the tokens as given in the corpus. Both left and right neighbours were investigated.

Table 3: Inflections on two or more attributive adjectives



## Results

When considering two or more attributive adjectives, in most cases two occurred. Three attributive adjectives, as in example 3 above, occurred in a very small number of instances. As Table 3 shows, the number of attributive adjectives was relatively small compared to the total number of forms for each entry. However, in many instances when a large number of examples occurred, the forms represented adverbial constructions such as "seit langem" (*for a long time*) or "vor kurzem" (*a little while ago*). These were excluded by visually examining each and every one of the occurrences. Thus in some instances there is a vast difference in numbers of forms with *-em* and forms as attributive adjectives in general. As can be seen from Table 3, this was most particularly the case with *langem*. Since we are interested in two or more unpreceded adjectives, we focused on instances of those forms. The numbers of tokens in column 4 represent the uses of the forms in the DAT MASC or NEUT SG as one of two or more attributive adjectives only. The adjective could be the right or left neighbour.

Examples of ST and WK endings exist in almost all instances searched. Overall, the strong inflections on the second adjective occur more often with a ratio of ST:WK of 1.56:1, that is, representing for all of the adjectives investigated approximately one and a half occurrences of ST inflection on the second adjective to every one occurrence of WK. This ratio of ST to WK occurrences on the second attributive adjective represents the average for the adjectives investigated overall. But some WK forms on the second adjectives actually occur more often than ST forms, such as the case of *langem* and *schönem*. For the recorded alternations, the ratios between ST and WK forms vary widely, from an almost even distribution such as for neuem (1.27:1 ST:WK) to a much more pronounced difference such as *deutsch-* which occurs generally with ST forms. On the other hand, *schönem* exhibits a ratio of 1:2 ST:WK.

Based on our corpus analysis, variation in inflections of the DAT MASC and NEUT SG forms of several unpreceded adjectives has been confirmed and shown to be occurring in significant numbers (39% in our sample). Although in most of the examined instances WK forms are less common than ST forms on the second of the two adjectives, we note that alternation is statistically common enough that it cannot be ignored. What is especially important here is that alternations have been found in various types of written text. Thus GFL students will encounter these alternate forms not only in spoken discourse but also in the often academically more privileged written text such as in the source database or others. Since alternations occur in numbers that cannot be dismissed [4] and in written genres, we strongly support raising awareness of these constructions in the GFL classroom.

## Internet search of co-occurring unpreceded attributive adjectives

In order to underscore the fact that students will come across alternations and to elaborate on the results of our corpus analysis, we conducted internet searches for co-occurring attributive adjective strings using some of the above examples. On the one hand, the internet is comparable to the corpus since it also brings together a range of written texts in a variety of registers, including both formal written text (as the text from news agencies in the Wortschatz Portal) and more informal e-texts, which may resemble spoken discourse. On the other hand, the range of texts upon which the internet draws is almost indeterminate.

We entered searches for co-occurring attributive adjectives on google.de using only pages from Germany. We enclosed our sample strings in speech marks so as to receive hits in which the adjectives were neighbours. For each string we first entered a search for examples that adhere to the general pattern of sameness in which both adjectives are inflected with *-em* (DAT MASC and NEUT SG). Then we searched for examples of the same string that show the alternation of *-em* and *-en*. It was not possible to eliminate obvious typographical errors (which ranged between one and six per 100 hits, depending on the specific string), though there was no interference from adverbial constructions due to the nature of searching with enclosing speech marks. We noted the numbers of hits for the general pattern and the alternation of inflections for each string.

Once again there was variation between the different strings of co-occurring attributive adjectives as to the preference for sameness or alternation of inflection on the second adjective if given as a DAT MASC / NEUT SG. The internet search of the co-occurrence of "gut- stark-" (Jul. 5, 2009) yielded 627 hits for the general pattern of ST + ST compared to only 49 for alternation of ST + WK. However, other strings—"lang- schwer-" (3,130 to 4,010), "gut- alt-" (16,600 to 42,100), "gut- schön-" (620 to 902), and "schön- lang-" (2,410 to 3,910)—showed a preference for alternation.

Based on our analysis of internet searches, variation in inflections of the DAT MASC and NEUT SG forms of unpreceded adjectives has again been confirmed and in several instances shown to be occurring in statistically significant numbers. The alternations found on the internet occur in an even wider variety of texts than through the Wortschatz Portal. While the specific number of hits varies, the general trend for alternation is similar to the results of the corpus analysis. Once again, this is a strong indication that GFL students will encounter alternate forms of inflection both in spoken discourse and in a broad range of written texts. For this reason, that is, for the sake of teaching grammar in context or as it is used, we contend GFL instruction should enable students to become aware of alternations. Since much classroom instruction is guided by language textbooks, it is important that these materials treat adjective inflection more comprehensively.

## Reasons for alternations

The alternations for the DAT MASC and NEUT SG of several unpreceded adjectives are acknowledged in the Duden (1973, 1984, 1998, 2005), and for GFL speakers the use of alternation is recommended in connection with quantifiers (Duden 2005). However, explanations that include the reasons for the alternate forms, which would be helpful to GFL speakers, are scarce. Examples 8 through 10, retrieved from the Wortschatz Portal (Universität Leipzig) ("weiterem," 6 Aug. 2008, 11:30) illustrate the importance of the awareness of alternations. 8 and 9 are particularly revealing since they are given in the corpus as a quotation found in two separate sources. However, in example 9 the quotation is given with alternations of the adjective inflection, while in 8 the inflections are parallel in the adjectives.[5] A further example of the combination of "weiter-" (*further*) and "organisch-" (*organic*) is given in 10, which like 8 has parallel inflection.

8. "...neue Möglichkeiten zu weiterem organischem Wachstum in strategisch wichtigen Märkten", sagte WestLB-Chef Thomas Fischer." (szon.de, 31 Aug. 2006) "...new possibilities to further organic growth in strategically important markets," said WestLB-CEO Thomas Fischer."

9. "... neue Möglichkeiten zu weiterem organischen Wachstum in strategisch wichtigen Märkten", sagte Fischer." (welt.de, 31 Aug. 2006) "...new possibilities to further organic growth in

strategically important markets," said Fischer."

10. "zu **weiterem organischem** Wachstum" (handelsblatt.com, 11 Aug. 2006) *to further organic growth*  
Since these statements appear as quotations, one wonders what the actual statement was.

The variation in the data could be due to the registers of the web sources or a regional difference. Further investigation of these and other socio-linguistic variables is beyond the scope of this paper. It is also possible to interpret 9 semantically differently from 8 and 10. The difference in inflection can possibly express a difference in meaning thus taking on a communicative value. This makes one wonder which meaning was intended. The ST + WK combination in 9 places emphasis on the first of the two adjectives, "weiterem," causing it to qualify the second adjective rather than to describe the noun.

Phonology has also been given as an explanation for alternations. Curme (1970) suggests the WK form on the second attributive adjective may be possible in order to show subordination. His explanation has a diachronic dimension:

The second adjective is often weak simply from the aversion to the repetition of the heavy endings -em and -er. This usage is also found in older periods. It is probable that the aversion... to the repetition of such endings as -em and -er gave rise to the weak forms here, and later the mind perceived that there also often existed here a difference in the relation of the different adjectives to the noun.... (Curme, 1970 [1922], p. 133).

Duden (1973, p.254, see also 1998) states this rule of subordination does not obtain and even if the second adjective and noun are a "Gesamtbegriff" (*unit*) the adjectives are to be declined with the same inflectional type endings, that is, ST. In the DAT MASC and NEUT SG, it is said that it may "auch noch" (*still also*) be declined with WK inflections. The 1973 Duden (p. 255) suggests phonological reasons, for example, as in "in fremdartigem physikalischen Zustand" (*in strange physical state*), where the consonant following [n] has the same place of articulation. The explanation provided in the 2005 edition of the Duden states a preference for the ST parallel inflection in Standard German. An explanation for the alternations involving phonology is tentatively stated as "Auslöser dürfte die phonologische Auffälligkeit der Endung -em sein" (the trigger might be the phonological conspicuity of the ending -em.) (Duden 2005, p. 974). Phonology is also one reason cited by Plank (1992) when he discusses alternations after possessive pronouns.

However, since alternations may occur in the same phonological environment as in 8 through 10, other explanations need further investigation. Let us consider the following examples from Fioretta (1996; our emphasis):

11. "Ich bleibe zu Hause bei **nebligem kaltem** Wetter." *I stay at home in foggy cold weather.*

12. "Ich bleibe zu Hause bei **nebligem kalten** Wetter." *I stay at home in FOGGY cold weather.*

While example 11 refers to foggy and cold weather, the general case, in example 12 it is foggy cold weather as a *subtype* of cold weather and not other types of cold weather that is important. Thus the bracketing is different, indicating a difference in semantics.

Let us also compare the next two examples:

13. "Wir feiern mit **irgendwelchem kalten** Bier." *We are celebrating with any (old) cold beer.*

14. "Wir feiern mit **irgendwelchem kaltem** Bier." *We are celebrating with any (but) cold beer.*

Both possibilities exist. The quantifier can be followed by adjectives with ST or WK inflections (see also Duden 2005, p. 971). A semantic difference similar to 11 and 12 can be established. In 13 "kalten Bier" refers to the totality of cold beer whereby "irgendwelchem" defines the characteristic further, similar to 12. However, in 14 a different interpretation in which "irgendwelchem" and "kaltem" both have similar bracketing also obtains. Thus inclusiveness (Lyons, 1999) as in 13 contributes to the explanation of the alternate use.[6] Although these differences exist, as we have seen above, they are ignored in the textbooks investigated. Yet students will potentially be exposed to the different meanings through discourse (or corpus analysis). While German adjective inflections are a complex topic for GFL students, it is possible to move toward explanations.

#### Adjectival inflections following quantifiers

Examples 13 and 14 show that co-occurrence with quantifiers helps to shed light on the question of alternation in adjective inflection. Quantifiers co-occurring with attributive adjectives have been investigated based on corpus analysis by Pfeffer and Linder (1984). Table 4 summarizes the major results from that corpus analysis as they pertain to our discussion. The table indicates the inflectional suffixes on the attributive adjectives following quantifiers. In general terms, Dipper's (2005) short corpus analysis to distinguish adjectival quantifiers from determiners completed in a different framework confirms similar tendencies twenty years later. Comments in Duden (2005, pp. 970-974) are also comparable. We conclude that quantifiers that indicate particularization and a total unit (in the plural) and express inclusiveness such as "sämtlich-" and "all-" (*all, every, all of them*) tend to occur more readily with adjectives with WK endings. "Welch-" (*which, that*) in the table below is described as being followed by WK inflections on attributive adjectives. When illustrated in the interrogative use in modern German, it includes the notion of the certain particular unit.

Table 4: Adjectival inflections following quantifiers (adapted from Pfeffer and Linder, 1984)



To summarize the findings so far, alternations in inflections of attributive adjectives occur in frequencies in corpora, on the internet, and other written and spoken text that warrant awareness raising activities for students and discussions of alternations in the classroom. The speaker's notional intent toward particularization of reference or total unit may influence the occurrence of WK endings when alternations are possible. Because of these reasons, if instructors were to ignore alternation, as grammar books seem to advise, they may be leading their students to think incorrectly that alternation in the DAT is an idiosyncrasy or an error. This is clearly not the case.

#### Analysis of GFL textbooks

##### Method

We analyze the six GFL textbooks that are currently the most frequently used at Canadian universities for their provision of explanations and practice opportunities regarding adjective inflections. The six include four beginners' to intermediate level books, *Deutsch: Na klar!* (Di Donato, Clyde, & Vansant, 2008), *Kontakte* (Tschirner, Nikolai, & Terrell, 2009), *Treffpunkt Deutsch* (Widmaier, Widmaier, & Gonglewski, 2008), and *Wie geht's?* (Sevin & Sevin, 2007), and two intermediate and advanced level books, *Handbuch zur deutschen Grammatik* (Rankin & Wells, 2004) and *Kaleidoskop* (Moeller, Adolph, Mabee, & Berger, 2007).[7] Specifically, we analyzed our sample of six German language textbooks for the kinds of grammar rules they introduce in the explanations of German adjective inflections. We have also examined all the grammar drills and communicative practice exercises concerning German adjective inflection, paying particular attention to the number and kind of inflections elicited.

##### Results for explanations and exercises concerning basic German adjective inflections in GFL textbooks

The grammar explanations of GFL textbooks used in Canada deal with the abovementioned general patterns of adjective inflections. All six define attributive adjectives and explain the distribution of inflections according to whether they are preceded by a definite article (or *der*-word), by an indefinite article (or *ein*-word), or are unpreceded—though *Kontakte* (Tschirner et

al., 2009, pp. 299 & 426) treats ST DAT and Genitive (GEN) forms only in footnotes. Each textbook introduces the inflection of adjectives preceded by definite articles, followed by adjectives preceded by indefinite articles, and then unpreceded adjectives, with the sole exception of *Kontakte*, which introduces inflection of unpreceded adjectives first, followed by adjectives with definite articles and then those with indefinite articles. All the language textbooks point out how ST inflection signals case, gender, and number when there is no preceding article, and all but one—*Deutsch: Na klar!* (Di Donato et al., 2008)—refer to the same rule when the preceding indefinite article is *ein*. Each textbook provides chunk and/or sentence-length examples and uses charts to further illustrate the distribution of inflectional forms.

The textbooks examined include a total of 929 instances of adjective inflection—including both single adjectives and pairs—elicited in 63 sets of drills and communicative practice exercises (see Table 5).[8] Thus there at first appears to be plenty of opportunities for students to practice manipulating the forms of adjective inflection. Of the 929 total instances of adjective inflection, 492 (53%) are WK inflections and 392 (42%) are ST. Drills in three of the textbooks—*Deutsch: Na klar!* (Di Donato et al., 2008), *Handbuch* (Rankin & Wells, 2004), and *Kontakte* (Tschirner et al., 2009)—also elicit a total of 18 (2%) instances requiring no inflection (e.g., with adjectives ending in *-a* or with geographic names serving as adjectives).

[9] *Deutsch: Na klar!* and *Handbuch* also elicit 27 (3%) inflections in communicative practice exercises that could be either WK or ST depending on the students’ choice of words.

Table 5: Overview of GFL textbook exercises eliciting adjective inflections



### Results for explanations concerning the inflection of co-occurring German attributive adjectives in GFL textbooks

Five of the textbooks comment on the inflection of co-occurring attributive adjectives. *Deutsch: Na klar!* (Di Donato et al., 2008, p. 275) remarks when explaining adjective inflection following definite articles and der-words that “When two or more attributive adjectives modify a noun, they have the same ending.” It then provides two examples, both WK, one preceded NOM NEUT SG and the other preceded NOM PL:

15. “Das **kleine historische** Hotel liegt in der Altstadt.” *The small historical hotel is located in the old part of town.* (p. 275);

16. “Die **vielen alten** Häuser haben mir gefallen.” *I liked the many old houses.* (p. 275).

*Deutsch: Na klar!* does not refer to the inflection of co-occurring adjectives again when explaining adjective inflection following indefinite articles or when there is no preceding article. *Handbuch* (Rankin & Wells, 2004, p.188) indicates that “All adjectives in a series take the same ending.” It provides two examples, one ST unpreceded ACC PL and one WK preceded ACC PL:

17. “Du hast **schöne blaue** Augen. *You have beautiful blue eyes.*” (p. 188);

18. “Ich mag deine **schönen blauen** Augen. *I like your beautiful blue eyes.*” (p. 188).

*Kaleidoskop* (Moeller et al., 2007, p. 326) remarks that “Adjectives in a series have the same ending” and provides two examples, one ST preceded NOM NEUT SG and one WK preceded ACC MASC SG:

19. “In der Marktstraße ist ein **neues italienisches** Geschäft. *On Market Street there is a new Italian store.*” (p. 326);

20. “Dort gibt es einen **ausgezeichneten italienischen** Rotwein. *There is an excellent Italian red wine there.*” (p. 326).

*Treffpunkt* (Widmaier et al., 2008, p. 70) observes when explaining adjective inflection following definite articles and der-words in the NOM that “If two or more adjectives come directly before a noun, they all have the same ending.” This textbook supplies one WK preceded NOM PL example:

21. “Wie viel kosten diese **beiden hübschen** Blusen? *How much do these two pretty blouses cost?*” (p. 70).

*Treffpunkt* does not mention the inflection of co-occurring adjectives again, but when explaining adjective inflection following indefinite articles in the NOM, one of the examples provided is in fact an instance of ST inflection with preceded co-occurring adjectives in the NOM NEUT SG:

22. “Ja, und er war nur halb so teuer wie mein **neues blaues** Hemd. *Yes, and it was only half as expensive as my new blue shirt.*” (p. 71).

*Wie geht’s?* (Sevin & Sevin, 2007, p. 239) remarks while explaining adjective inflection on adjectives preceded by *der-* and *ein-*words that “If two or more adjectives precede a noun, all have the same ending.” At this point the book offers one example of a WK preceded NOM PL:

23. “Das sind keine **großen, teuren** Geschenke.” *Those aren’t big expensive presents.* (p. 239).

Later, while explaining adjective inflection on unpreceded adjectives, it repeats the same rule: “If there are several unpreceded adjectives, all have the same ending” (p. 273). A further example is supplied in the form of a ST unpreceded ACC PL:

24. “Ich wünsche dir **schöne, interessante** Ferien.” *I wish you nice, interesting holidays.* (p. 273).

*Kontakte* (Tschirner et al., 2009) does not mention the co-occurrence of adjectives at all and none of the examples it gives include co-occurring adjectives.

Of the ten examples of co-occurring attributive adjectives provided with the grammar explanations in the five textbooks that do mention this point of language, six examples show WK inflection and four show ST inflection. The examples are with SG or PL nouns but only in either the NOM or the ACC. There are no examples of the inflection of co-occurring adjectives provided in the DAT. In fact, none of the grammar explanation sections in the textbooks mention the possibility of the alternation of inflection of co-occurring adjectives (see Table 6).

### Results for exercises concerning the inflection of co-occurring German attributive adjectives in GFL textbooks

As represented in Table 6, four of the German language textbooks contain a total of 180—or 90 pairs of—co-occurring adjectives in drills and communicative practice exercises. This equals just over 19% of all of the 929 adjective inflections elicited. These are not distributed evenly across the four books. *Deutsch: Na klar!* (Di Donato et al., 2008) contains seven pairs of co-occurring adjectives, *Kaleidoskop* (Moeller et al., 2007) has six pairs, *Treffpunkt* (Widmaier et al., 2008) includes 57 pairs, and *Wie geht’s?* (Sevin & Sevin, 2007) has 20 pairs.

[10] *Handbuch* (Rankin & Wells, 2004) and *Kontakte* (Tschirner et al., 2009) do not contain any co-occurring adjectives in their grammar practice exercises, even though *Handbuch* does discuss them in the grammar explanations.

Table 6: Co-occurring attributive adjectives in GFL textbook explanations and exercises



Of the 90 pairs of co-occurring adjectives present in the four textbooks that do contain practice exercises seeking inflection on co-occurring adjectives, 59 pairs require WK inflection and 31 pairs take ST. Of the five pairs of co-occurring adjectives requiring ST inflection in *Deutsch: Na klar!* (Di Donato et al., 2008), one is preceded by *ein* (p. 278), the other four are unpreceded pairs, three with NOM MASC SG nouns (pp. 280, 281), and one with a NOM FEM SG noun (p. 281). The one pair of co-occurring adjectives with ST inflection elicited in *Kaleidoskop* (Moeller et al., 2007) is preceded by *ein* (p. 172). In *Wie geht's?* (Sevin & Sevin, 2007), 12 pairs of co-occurring adjectives are ST. Among these, seven pairs occur with nouns preceded by an *ein*-word (pp. 239, 240, 241). Three of the pairs with ST inflection in *Wie geht's?* are with unpreceded ACC PL nouns (p. 241). This elicitation of three pairs of ST adjective inflection with unpreceded ACC PL nouns is most likely an oversight at this point in the organization of practice exercises in *Wie geht's?* because the textbook does not explain this kind of adjective inflection for another 32 pages. The final two pairs with ST inflection in *Wie geht's?* are also with unpreceded nouns, one is DAT FEM SG (p. 275) and the other is DAT PL (p. 275). The 13 pairs of co-occurring adjectives in *Treffpunkt* (Widmaier et al., 2008) that require ST inflection<sup>[11]</sup> include five with nouns preceded by *ein* (pp.101, 353-354). Seven of the pairs with ST inflection in *Treffpunkt* are with unpreceded nouns in the ACC, three of which are ACC MASC SG (p.102), one is ACC FEM SG (p.102), two are ACC NEUT SG (p. 102), and one is ACC PL (p.102). The final pair of co-occurring adjectives elicited (presumably—see below) with ST inflection in *Treffpunkt* is with an unpreceded DAT MASC SG noun.

25. "Mit **echtem italienischem** Mozzarella schmeckt die Pizza viel besser." *The pizza tastes much better with real Italian mozzarella.* (p. 355).<sup>[12]</sup>

Table 7: The distribution of co-occurring adjectives (pairs) with ST inflection in GFL textbook exercises according to case, gender, and number



As represented in Table 7, of all the instances requiring ST inflection, 14 pairs follow *ein* in the NOM or ACC and 17 pairs are the result of being unprecedented. Of this latter group, the above example 25 from *Treffpunkt* (Widmaier et al., 2008) is the only occasion when inflection is elicited with unprecedented co-occurring adjectives with a DAT MASC SG noun. There is no elicitation of the inflection of unprecedented co-occurring adjectives with a DAT NEUT SG noun.

Although none of the grammar explanation sections in the textbooks mention the alternation of inflection of co-occurring adjectives, the final pair of co-occurring adjectives in example 25 is found in exactly one of the two most common grammatical instances where alternation in inflection is possible (the other being DAT NEUT SG). In this item, students are first given a stimulus sentence with a pair of adjectives preceded by a DAT indefinite article and thus showing WK inflection:

26. "Mit einem **echten italienischen** Mozzarella schmeckt die Pizza viel besser." *The pizza tastes much better with a real Italian mozzarella.* (p. 355).

Students are required to transform this stimulus sentence by removing the indefinite article and providing the appropriate inflection for the now unprecedented adjectives.

Since *Treffpunkt* explains only that co-occurring adjectives must take the same endings (albeit only when discussing adjectives with preceding definite articles in the NOM), and does not discuss alternation at all, students are most likely expected to produce an answer with ST inflection on both adjectives:

27. "Mit **echtem italienischem** Mozzarella schmeckt die Pizza viel besser." *The pizza tastes much better with real Italian mozzarella.* (p. 355).

Yet, if alternation of the inflection of co-occurring adjectives were possible with this item, an instructor should also accept students' production of ST followed by WK inflection with this pair:

28. "Mit **echtem italienischen** Mozzarella schmeckt die Pizza viel besser." *The pizza tastes much better with real Italian mozzarella.* (p. 355).

If the textbook authors intend to avoid the alternation shown in example 28, they have chosen their exercise stimulus phrase (example 26) well. The co-occurrence of "italienisch-" and "Mozzarella" would lead to a strong ending, since semantically "italienischen Mozzarella" would create a tautology. In addition, strong inflection would also be expected based on phonological rules. Thus, for a couple of reasons, alternation is unlikely even with the single pair of co-occurring adjectives to be found in the six textbooks—namely, example 25 (or 0.21% of all adjectives in practice exercises)—that grammatically speaking does have the DAT MASC / NEUT SG disposition necessary for possible ST + WK alternation.

The above assertion is supported by a further internet search of the string "echt-italienisch-" (5 Jul. 2009) which yielded 36,000 hits for the general pattern of ST + ST compared to 6,650 for alternation of ST + WK (not with "Mozzarella"! ). However, when searching the internet to review the strings used by the textbooks when presenting the general pattern of sameness of inflection on co-occurring adjectives (see examples 15-24, excepting 16 and 21, which are quantifiers), not all show a preference for ST + ST if given as a DAT MASC / NEUT SG. While the strings "schön- blau-" (7,410 hits to 5,930), "ausgezeichnet-italienisch-" (659 to 6), and "schön- interessant-" (472 to 94) indicate a preference for ST + ST, the remaining "klein- historisch-" (67 to 1,190), "neu-italienisch-" (105 to 8,160), "neu- blau-" (1,110 to 2,330), and "groß- teuer-" (92 to 164) all show a preference for the alternation ST + WK.

To recapitulate, GFL textbooks not only fail to address alternation in their grammar explanation sections, they appear intentionally to avoid the possibility of alternation in the exercises too. This deficiency is particularly evident once the frequency of alternation with certain co-occurring adjectives comes to light.

#### Adjectival inflections following quantifiers in GFL textbooks

Table 8 (on page 16) provides an overview of the explanations of the inflection of quantifiers and attributive adjectives in GFL textbooks.

Three of the textbooks, *Handbuch* (Rankin & Wells, 2004), *Kaleidoskop* (Moeller et al., 2007), and *Wie geht's?* (Sevin & Sevin, 2007) discuss the inflection of adjectives following limiting adjectives or quantifiers, pointing out that PL quantifiers behave as adjectives by taking inflections depending on the presence or absence of a preceding article. They also indicate SG quantifiers such as "viel" (*a lot, much, many*) and "wenig" (*few, little*) with SG nouns are not inflected. Only *Handbuch* (p. 189) specifically mentions that adjectives following SG quantifiers

"require strong endings." *Handbuch* and *Kaleidoskop* also briefly discuss the WK inflection of adjectives co-occurring with the PL quantifier "alle." *Handbuch* provides an example in NOM PL (p. 190) and *Kaleidoskop* offers an example in ACC PL. None of the textbooks mention the possibility of the alternation of the inflection of co-occurring quantifiers and adjectives.

Table 8: Overview of GFL textbook explanations concerning the inflection of quantifiers with adjectives





Table 9 provides an overview of the exercises eliciting practice of the inflection of quantifiers and attributive adjectives in GFL textbooks.

Table 9: Overview of GFL textbook exercises concerning the inflection of quantifiers with adjectives



Three of the textbooks contain a total of 24 instances of adjective inflection following unpreceded quantifiers. *Handbuch* (Rankin & Wells, 2004) has four (or two pairs of one quantifier and one adjective), both ST with ACC PL nouns (p. 198). *Wie geht's?* (Sevin & Sevin, 2007) contains three pairs of adjective inflection following unpreceded quantifiers, also all ST with ACC PL nouns (pp. 275, 282). *Kaleidoskop* (Moeller et al, 2007) requires students to produce seven pairs of adjective inflection following unpreceded quantifiers. One pair is an example of WK adjective inflection following *alle* with a NOM PL (p. 332). All other six pairs in *Kaleidoskop* show ST inflection on both the quantifier and the following adjective, four are with ACC PL nouns (p. 332) and two are with DAT PL nouns (p. 332).

Of the 11 pairs of the ST inflection of unpreceded co-occurring quantifiers and adjectives sought in the practice exercises of three of the six textbooks, all 22 are PL, nine of which are ACC and two are DAT. None of the textbooks require students to produce inflection on unpreceded co-occurring quantifiers and adjectives with DAT MASC or NEUT SG nouns, both instances in which the alternation of inflection could be possible. It is thus evident that GFL textbooks entirely avoid alternation.

#### **Pedagogical suggestions**

GFL textbooks not only ignore alternation of inflection, but by distributing the general instruction of adjective inflection often across different chapters or lesson units that isolate inflection according to definite articles, indefinite articles, or nil articles, they risk decontextualizing the grammar from authentic language use and giving the impression the acquisition of adjective inflection is more daunting than it has to be. Whether a teacher prefers to present discrete grammar points or have students discover them in the context of authentic and purposeful communication, the essence of acquiring adjective inflections is comprehending the need to signal case (and gender and number) once in the determiner phrase. Often it is useful for

students to create their own charts, in which they synthesize a comprehensive set of example phrases from authentic texts they have read for other communicative or cultural purposes, highlighting the case signals and inflections as they go.

If teachers and students follow the foregoing basic frame, more often than not, the examples will contain single adjectives. Should teachers then pose the question as to what happens when there are co-occurring adjectives, a lively debate may ensue. An intriguing dilemma presents itself to the learners: In the instance where the first adjective needs to take on the function of signalling case, is this function fulfilled exclusively by the first adjective, thus requiring the second to take WK inflection, or is this function repeated by the second adjective, requiring it also to take ST inflection? The best way for students to answer this question is to set it as a task to solve. Students can retrieve sample co-occurrences from given texts or, better, a corpus, or make up their own samples and search the internet, checking for all likely case, gender, and number combinations. When then debriefing the activity and comparing their results with those of other students, they will certainly realize that in most instances a pattern of sameness exists, but in several instances that are DAT MASC and NEUT SG there will be alternation. Such grammar consciousness-raising activities (Fotos, 1994, Fotos & Ellis, 1991) have been proven to be particularly helpful for structuring input to students and more effective than drills (Robinson, 2003, Wong & VanPatten, 2003). At this point, instructors could address the question under which conditions alternations can be expected.

Once students have collected samples of inflection in co-occurring adjectives, they could make further comparisons with quantifiers, and perhaps even investigate whether particular strings showing alternation can be explained by referring to inclusiveness. For this purpose we provide the following two charts for the classroom. The charts reflect what grammars list about the distribution of ST and WK forms. Pafel (1994, 2005) refers to the distributive quality of "solch-" (*such*) and "manch-" (*many a*) in order to explain alternations with these quantifiers. As we have seen according to the basic rules, sets of adjectives can and in many cases will be ST but the additional arrow in the second chart allows for the possibility of alternations.

Diagrams 1 & 2



## Conclusion

Based on our corpus analysis using the Wortschatz Portal and our internet searches, we maintain that alternations in the inflection of co-occurring attributive adjectives in German exist in significant frequency and so should not be ignored in GFL textbooks and classrooms. We recommend raising awareness of these alternations, especially at proficient levels of GFL studies, since these forms will be heard and read. The speaker's notional intent towards particularization of reference or total unit may influence the occurrence of WK endings when alternations are possible. A number of reasons may exist for why alternations occur, including diachronic reasons, differences in register, regional variation, and phonology, which would have to be traced individually. We believe raising awareness of the possibility of alternations would contribute to a higher degree of knowledge of scalar use of rules in language as well as help students develop the learning strategy of tolerance of ambiguity. Furthermore, students' exposure to the alternations may occur through a pedagogically structured corpus analysis or internet searches, as shown in our discussion.

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[1] We thank J. Hewson for the inspiration and M. Harry, M. Heukaeufer, and K. Jacob for their feedback.

[2] In all examples we highlight the adjectives in boldface, underscore the inflections, and use italics for the English translations, no matter the formatting in the source. Translations provided outside of the quotation marks are the authors'.

[3] The different editions were examined to trace the change, whereby the most recent one includes recommendations for GFL speakers concerning the use of ST and WK forms in relation to the use of quantifiers.

[4] In the theoretical literature, alternations are sometimes considered idiosyncratic usage of the individual speaker and thus also not addressed.

[5] As the data at the Wortschatz Portal does not include any further information on sources, it cannot be excluded that the statements were made at different times and are thus a case of free variation.

[6] The literature on definiteness and specificity in general is extensive and a discussion of those categories as independent categories (e.g., Von Heusinger, 2001) is beyond the scope of this article.

[7] Fordham (2008) found in a survey on the textbooks in use in postsecondary German language courses in Canada in 2007-2008 that *Kaleidoskop* (Moeller et al., 2007) was the most widely used, with 11 of the 20 responding German programs reporting its use. Eight universities reported using *Treffpunkt Deutsch* (Widmaier et al., 2008), five were using *Handbuch* (Rankin & Wells, 2004), and four used *Deutsch: Na klar!* (Di Donato et al., 2008). *Kontakte* (Tschirner et al., 2009) and *Wie geht's?* (Sevin & Sevin, 2007) were each being used in three programs, with seven other textbooks being used less frequently (Fordham, 2008). These figures resembled a similar survey with 28 reporting programs conducted four years earlier, in which *Kaleidoskop* was again the most widely used textbook (in 13 programs), followed by *Treffpunkt* (11), *Wie geht's?* (5), *Deutsch: Na klar!* (3), *Handbuch* (3), and eleven other textbooks (Fordham, 2004).

[8] Two textbooks contain further communicative activities and written composition: There are eight of these in *Handbuch* (Rankin & Wells, 2004) and five in *Treffpunkt* (Widmaier et al., 2008). Since students' language use is not predictable in these activities, it is impossible to count accurately the number and determine the kind of adjective inflections they will produce while completing them. Therefore, these activities are not included in Table 5.

[9] One instance in *Handbuch* (Rankin & Wells, 2004) might be an error since the stimulus and response sentence are adverbial (see exercise E, # 6, 197).

[10] One of the communicative activities in *Treffpunkt* (exercise 3-31, 102) also elicits co-occurring adjectives, but this is not counted in Table 5 for reasons stated in footnote 8.

[11] The communicative activity mentioned in footnote 10 (and not included in Table 5 or the analysis) elicits co-occurring adjectives that require either WK or ST inflection in the ACC.

[12] The authors have inserted the inflections elicited in the stimulus example.