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UMLAUT PHONOLOGICAL PROCESSES: A CHALLENGE TO THE *RECHTSCHREIBUNG* IN GERMAN

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Introduction

The inconsistency in the umlaut placements within German lexical items causes learners of German outside the shores of Germany a great deal of pain. The learners see its mastery and applications as a Herculean task. Rechtschreibung on its own part fails to handle the German umlaut phonological processes, though it takes the responsibility of stipulating how German lexical items should appear in texts (cf. Stang und von Heyl 2006; Stang und Dudenredaktion 2010; Stock 2007). This write-up sets out to describe the umlaut phonological process with a view of unravelling its complexity. It also argues via the Generative Framework that the German umlaut, which has a phonemic effect can easily be learnt, because their placements can become suspicious on account of the presence of certain vowels. Consequently, it suggests that the inconsistency noticeable in the umlaut placement should be regularized, especially in relation to the German adjectives that end in *...lich*, *...ig* and *...isch*.

The word umlaut is etymologically Germanic, and means change of sound. Umlaut as a German noun is masculine in gender and has the plural form *Umlaute*, i.e. *der Umlaut*: the change of sound; *die Umlaute*: the change of sounds. The umlaut is a very important diacritical feature in German.

Umlaut as a phonological process has a diachronically deeper explication within the generative theoretical framework. Generative phonological theory evolved as part of a comprehensive theory of Transformational Generative Grammar. Generative phonology is mainly concerned with the conception of distinctive features as minimum linguistic units, the binary interpretation of features at the phonological level and arrangement of features in matrices (Fischer-Jorgensen 1975: 146-8). Distinctive features are crucial in generative phonology, for they are used in capturing phonetic qualities and stating phonological rules. Later in the paragraphs the umlaut will be further explained within the generative framework.

Definitions

According to Wahrig (1992:1320), umlaut can be defined as a change of the stem vowel on account of a natural influence of a following high vowel: a changes to ä; o changes to ö; u changes to ü. In German, the umlaut diacritic, ¨ can only be found on these three vowels and the diphthong au, which changes to äu. The sound which emerges as a consequence of the vowel alteration is spelt in the following way, for example, ä is spelt as a-umlaut.

Stat-Vej (1980: 584) and Tus-Wek (1988: 32) describe umlaut as the change of colour of a vowel through the attempt of the vowel to assume the articulation of a vowel in the following syllable, most especially the change of German a, o and u to ä, ö, ü on account of i or j in a following syllable. This definition suggests further the place of umlaut occurrence in the phonological process; it takes place over syllable boundaries (Malmkjear 2002: 227).

Makensen (1986: 1085) describes umlaut as a self re-colouration of a sound on account, of a neighbouring sound. Paul (1992: 933), cf. Helbig and Buscha (2000: 105, 139) Moeller and Liedloff (1984: 270, 282) and Aufderstrasse (2003: 111), equally share the view of Makensen, but adds that the vowel change takes place within derivations and inflexions. For example:

	German	English	**German**	English
Adjective:	*stark*	(strong)	*stärker*	(stronger)
Noun :	*Dorf*	(village)	*Dörfer*	(villages)
Noun :	*Kunst*	(art)	*Künste*	(arts)
Verb :	*laufen*	(to run)	*läuft*	(runs)

(Preuss 1986: 524)

Nevertheless, the derivation of umlaut in German lexical items exhibits variable patterns as exemplified below using monosyllabic German nouns:

Noun	**Plural**	**Verb**	**Adjective**
1. *Hand* (hand)	*Hände*	---------	*handlich* (handy)
2. *Kuß* (kiss)	*Küsse*	*küssen* (to kiss)	----------
3. *Dorf* (village)	*Dörfer*	----------	*dörfisch* (simple)
			dörflich (village like)

4. *Haus* (house) *Häuser* hausen (to live in poor conditions)
hauslich (schweiz. shrewd)*häuslich* (homely)
5. *Baum* (tree) *Bäume* *baumeln* (to dangle, hang)
bäumen (to rear, prance)
6. *Krach* (noise) *Kräche* *krachen* (to crack) *krächelig*
(weak (due to age))
Pl ? ??? Adj weglassen *krach(e)lig*
(weak (due to age))
7. *Kraft* (noise) *Kräfte* *kräftigen* (to strengthen) *kräftig*
(powerful)
8. *Krampf* (cramp) *Krämpfe* *krampfen* (to clench, clasp) *krämpfig*
(spasmic, convulsive)
Umlaut weg *krampfig* (spasmic, convulsive)
9. *Arzt* (doctor) *Ärzte* ---------- *ärztlich* (medical)
10. *Mann* (mạn) *Männer* *mannen* (to man) *männlich*
(male, manly)
11. *Luft* (air) *Lüfte* *lüften* (to let in air) *lüftig* (airy, windy)
luftig (trickery)???

From the above examples, it can be seen that umlauting is not always realized in the process of derivation: *hauslisch* (shrewd), *krachen* (to crack), *mannen* (to man) and *hausen* (to live in poor conditions) are all derivatives, which do not take umlaut. At some instances, it functions for sense differentiations as in *lüftig* (airy, windy) and *luftig* (trickery), *dörfisch* (simple) and *dörflich* (village like), *hauslich* (shrewd) and *häuslich* (homely), but again varies in the cases of *krämpfig* (spasmic, convulsive) and *krampfig* (spasmic, convulsive), then *krächelig* (weak (due to age)) and *krach(e)lig* (weak (due to age)). These irregularities in umlaut realization portend a great deal to Germans studies. Essentially, umlauts can be found on limited occasions on the stem vowels of nouns, as in *Läsion*, *Lärm*, *Öl* and a few others. Further examples of absence of umlaut in the process of derivations can be seen below.
German irregular adjectives do not add umlauts in their comparatives and superlatives. See examples below.
a. German irregular adjectives:

Positive (German)	English	**Comparative** (German)	English	**Superlative** (German)	English
1. *dunkel*	dark	*dunkler*	darker	*am dunkelsten*	darkest
2. *langsam*	slow	*langsamer*	slower	*am langsamsten*	slowest
3. *gut*	good	*besser*	better	*am besten*	best
4. *schmal*	narrow	*schmaler*	narrower	*am schmalsten*	narrowest

b. Some German nouns that do not add umlauts in the process of derivation:

German (singular)	English	**German (plural)**	English
1. *Wart*	keeper	*Warte*	keepers
2. *Vulkan*	volcano	*Vulkane*	volkanos
3. *Tag*	day	*Tage*	days
4. *Takt*	tact	*Takte*	tacts
5. *Ruf*	call	*Rufe*	calls

Also most German verbs do not add umlauts in the process of derivation, but umlaut addition is common in certain derivations from irregular verbs.
Here are some German verbs that do not add umlauts in the process of derivation:

Infinitive (German)	English	**3rd person singular** German)	English
1. *kommen*	to come	*kommt*	comes
2. *machen*	to do	*macht*	does
3. *kaufen*	to buy	*kauft*	buys
4. *borgen*	to borrow	*borgt*	borrows
5. *bummeln*	to loaf about	*bummelt*	loafs about

German irregular verbs are so called, because they experience stem vowel modification either in the present or in the past or in both the past and present tenses as in the case of modal verbs, with the exception of *sollen*, for example *können* (infinitive), *kann* (1st and 3rd person singular in the present indicative), *konnte* (preterite), *gekonnt* (past participle). The verb *tun* (infinitive) has *tut* as the (3rd person singular in the present indicative), but *tat* as the (preterite) and *getan*

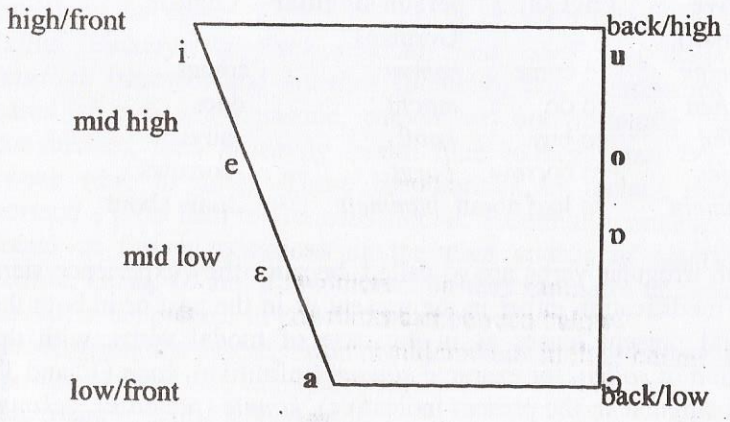
(past participle). In the preterite, the stem vowel of *tun, /u/* changes to */a/*, while the stem vowel of *können, /ö/* changes to */a/* in the present indicative singular as seen in the illustration. Notice that the */ö/* in the infinitive of *können* changes to */o/* in the preterite. In other words, *können* undergoes stem modification both in the present and in the past tenses. However, there is only a slight difference in the realization of the vowel sounds. Both */ö/* and */o/* occupy similar high positions in the umlaut vowel chart. The only difference between them is that while */o/* is a semi high back vowel, */ö/* is a semi high front vowel. A similar situation exists between */ü/* and */u/*. However, the situations between */ö/*and */o/*, */ü/*and */u/* are not equivalent to the transformational change that takes place when */a/* changes to */ä/*. The reason for this claim is, that in the case of */ä/*, there is heightening whereby */a/* assumes the sound of /□/. See diagrams and more examples below.

Diagrammatic Representation of the Vowels

Here, the vowels are diagrammatically indicated in the vowel chart. Their positions are indicated before the umlaut phonological process and after.

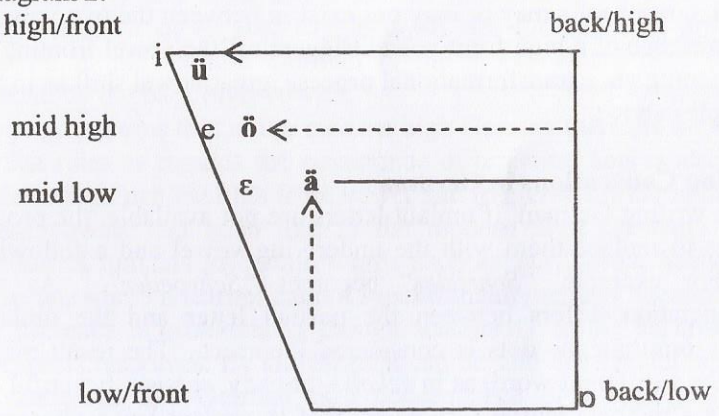
The German umlaut vowel chart before the phonological process.

Diagram 1:



The German umlaut vowel chart after the phonological process

Diagram 2:



The arrows indicate the transformation that takes place through the great vowel shift resulting in the umlauted vowels. */u/*, a back vowel moves to the front, also */o/* does the same, to become front vowels */ü/* and */ö/* respectively, while */a/* assumes the height of /ɛ/ i.e. */ä/*.

Umlaut formation within the Generative Theory

It has already been said that in umlauting, vowels become fronted or gain height on account of a following /i/ or /j/ sounds. We shall represent this claim with a rule, (informal) first. Then, the rule will be formalized. Examples: *fröhlich* (happy); *mächtig* (powerful); *zukünftig* (future); *irrtümlich* (erroneous); *nötig* (necessary); *zukünftig* (in future) and *vernünftig* (sensible, reasonable).

Informal Rule

$V \rightarrow [\text{ - back}] / \text{ - } C_o$

Formal Rule

$$\begin{bmatrix} V \\ +\text{high} \\ -\text{back} \end{bmatrix}$$

$$\begin{bmatrix} +\text{syl} \\ +(\text{back}) \end{bmatrix} \rightarrow [\text{ - back }] / \text{ - } C_o \quad \begin{bmatrix} +\text{syl} \\ +\text{high} \\ -\text{back} \end{bmatrix}$$

For umlaut to occur, a (back) vowel must be followed by a high front vowel, consonant/s may or may not exist in between the two vowels. The presence of a high front vowel triggers off the vowel fronting or heightening via a transformational process, great vowel shift as in the examples above.

Writing Conventions in German

When writing German, if umlaut letters are not available, the proper way is to replace them with the underlying vowel and a following (e). For example, "*Schröder*" becomes "*Schroeder*". As the pronunciation differs between the normal letter and the umlaut, simply omitting the dots is considered incorrect. The result might often be a different word, as in *schon* – already, *schön* – beautiful, or *Mutter* – mother, *Mütter* – mothers, that is, umlaut has a phonemic effect. Despite this, the umlauted letters are not considered part of the alphabet proper. When alphabetically sorting German words, the umlaut in usually treated like the underlying vowel; if two words differ only by an umlaut, the umlauted one comes second, for example: *schon* 2. *schön* 3. *schonen.*

Makensen's definition above clearly indicates, that the umlaut phonological process is a typical case of vowel mutation (Malmkjear 2002: 227). An observation of the examples given by Preuss above, fails to indicate any high front vowel such as i or j in an adjacent syllable that triggered off the vowel mutation. On account of this umlaut placement is investigated diachronically to find a clearer explication of what happens in the umlaut phonological process. Sequel to that, Berger et al. (eds.) (1972: 655) describe umlaut diachronically as vowel heightening on account of influence of a neighbouring i or j in a following syllable:

Old German	English	**Middle Age German**	**Modern German**
Turi	(door)	*Tür*	*Tür*
scöni	(beautiful)	*schoene*	*schön*
mahtig	(powerful)	*mehtic*	*mächtig*
Gast	(sing. Guest)	*gesti* (plu.)	*gast*(sing)*Gäste* (plu.)
Lamm	(sing. lamb)	*lembir* (plu.)	*Lamm*(sing.)*Lämmer* (plu.)
faru	(I travel)	*ich fahre ferist*	(you travel, 2nd prs. sing.) *du fährst*
lam	(lame)	*lahm lemjan*	(to make lame) *lähmen*

Therefore, it is now clear that it was the presence of the high front vowel sound /i/ or /j/ that triggered off the formation of umlaut sustained in the modern German in the words where they were preceded by the back high vowels.

However, it seems that in the modern high German there are no hard and fast rules as regards the occurrence of umlauts. This is already problematic, since the high front vowel that triggered off the umlauts on the vowels had been lost in the modern high German. The retention of umlauts in certain words such as *Tür*, *schön*, *bemühen* and so on, where a learner cannot synchronically readily account for their presence is problematic, though sustainable at the expense of the learners resources. By and large, it can be said that umlaut occurs in a language like German as a consequence of a regressive or anticipatory assimilation, which was originally phonologically conditioned (Katamba 1993:103).

Surprisingly, there are instances where the presence of high front vowels are shown not to trigger off the vowel change, yet there are no convincing arguments adduced for such occurrences, except perhaps for human errors in linguistic description of sounds. For example in words like

Botin (female messenger)
Sklavin (female slave)
Genossin (female slave)
Mohrin (a female black person, who has served her punishment)
Polin (a female polish)

Amazingly enough, a great preponderance of German adjectives in which one would have anticipated umlaut presence appear in German lexicography as words without umlauts. This is quite flabbergasting and calls for a serious concern and remedy, for it complicates further the problems of a German learner, who works very hard to come to grips with the irregularities in the umlaut placements in verbs and nouns. For example, German adjectives that end in *...lich*, *...isch* and *...ig* constitute a very large portion of the German lexicon. Therefore, the regularization of the placement of umlauts on them will have a snowball effect as regards accelerated learning and acquisition of German by the learners. The energy, time

and resources the learners would dissipate to learn the variations in the umlaut placements on such adjectives would be directed to some other areas of language acquisition and learning, such as the use of prepositions, register variations, separable verbs, inseparable verbs, affixations, reflexive verbs, composites, declension of nouns, adjectives and personal pronouns, and verb conjugation. In German, there are over 150 adjectives without umlaut diacritics that end in *...lich*, *...isch* and *...ig* altogether, though one would anticipate umlaut placements on certain vowels within the words. For the purpose of elucidation, a number of them are listed below:

wohlich, comfortable
bedrohlich, threatening
bekanntlich, well known
betulich, attentive, fussy
fachlich, professional
verdaulich, digestible
vertraulich, familiar, confidential
wissenschaftlich, scientific
(halb)amtlich, (semi)official
monatlich, monthly
pflanzlich, vegetable
stattlich, imposing, handsome
stofflich, material
vermutlich, supposed, presumed
vorsorglich, precautionary
weinachtlich, chrismas

automatisch, automatic
chaotisch, chaotic
chronisch, chronic
despotisch, despotic
dogmatisch, dogmatic
dynamisch, dynamic
emphatisch, emphatic
exotisch, exotic
galaktisch, galactic
gigantisch, gigantic, colossal
grafisch, graphic
historisch, historical
klassisch, classical
kubisch, cubic
launisch, ill humoured, peevish
magisch, magical
melodisch, melodious
methodisch, methodical
biologisch, biological
chromatisch, chromatic
chronologisch, chronological
dilettantisch, amateurish
drastisch, drastic
egoistisch, egoistical, selfish
erotisch, erotic
fantastisch, fantastic
germanisch, Germanic
graphisch, graphic
harmonisch, harmonious
idiotisch, idiotic
komisch, comical, funny
kultisch, ritual (object etc.)
logisch, logical
mechanisch, mechanical
metalisch, metallic
modisch, fashionable, stylish

musisch, inlaid, mosaic
notorisch, notorious
phantastisch, fantastic
plastisch, plastic
praktisch, practical
rhetorisch, rhetorical
soziologisch, sociological
stoisch, stoical
telegrafisch, telegraphic
tragisch, tragic
nostalgisch, nostalgic
ornithologisch, ornithological
physikalisch, physical
platonisch, platonic
provisorisch, provisional
schematisch, schematic
spanisch, Spanish
telefonisch, by telephone
theologisch, theological
tropisch, tropical

aalartig, eel shaped
achtzig, eighty
anmutig, charming, graceful
dunstig, vaporous, steamy
faltig, folded, wrinkled
frostig, frosty, cold
glasig, glassy, vitreous
grausig, horrible, horrid
klobig, clumsy, crude
knochig, bony, osseous
knorrig, knotty, gnarled
knusprig, crunchy, crisp
lauschig, snug, cosy
lockig, curly
lumpig, ragged, tattered
mannigfaltig, various, manifold
musisch, artistic
paarig, in pairs
pampig, soggy, rude, stroppy
ranzig, rancid
rostig, rusty
ruhig, quiet
rußig, sooty
scharfsinnig, astute, shrewd
schlagartig, sudden
schwammig, spongy
aasig, urgly, filty
affenartig, monkey-like
baldig, early, speedy
durstig, thirsty, eager
farbig, coloured
fuchtig, mad, furious
glockig, bell-shaped
großartig, grand, splendid
klotzig, in chunks, lumpish
knollig, knotty
knorzig, knotty (in wood)
kundig, skilful, versed
lausig, lousy, miserable
luftig, airy, breezy
lustig, merry, gay
markig, pithy, vigorous
mutig, courageous, brave
palaisartig, palatial
rahmig, creamy
rosig, rosy
rothaarig, red haired
ruppig, rough, gruff
sachkundig, expert
schattig, shady
schmalzig, sentimental
stumpfsinnig, dull

waghalsig, foolhardy
wolkig, cloudy
zugig, draughty
klobig, bulky, clumsy looking
wahrhaftig, true, real
zottig, shaggy
zukunftig, in future

Umlaut is found in some other languages of the world besides German

German is not the only language where umlauts exist. According to Malmkjear (2002: 227),

> The Proto-Germanic form (*musiz) gave old English (MI:S) (Modern English 'mice'), when the vowel in the first syllable was drawn forward through the influence of the front vowel in the second syllable. Similarly, Latin 'feci' gave rise to Spanish 'hice' when the influence of the Latin vowel [i] raised (e) to [i] through assimilation. Final [i] subsequently lowered to [e].

Katamba (1993:103-4) equally explicated the umlaut effect in the Old English language, for example:

Nominative singular	Nominative plural
Fōt 'foot'	fōtiz ' feet'
Gōs 'goose'	gōsiz 'geese'

(ō = long /o:/)

First, /o:/ was fronted to /e:/ by umlaut because of the anticipation of the front vowel /i/ in the next syllable. This is the process shown by the spelling 'fot' (later 'foot') for /fo:t/ and 'fēt' (later 'feet') for /fe:t/ (the double letter e and o represented long vowels). Subsequently, the great vowel shift raised the /e:/ to /i:/ and the pronunciation changed from /fe:t/ to /fi:t/ in the plural. In the case of the singular, the original /o:/ of /fo:t/ was raised to /u:/ by the great vowel shift. Although, umlaut takes place in English in a few plural noun forms, it is not represented physically as in the case of German. Therefore, it does not call attention the way it does in German.

In umlaut phonological process, two movement transformations take place, viz back vowels become front vowels (secondary) (Schane

1973:52) and vowels assume the height of the following one, i.e. /i/ or /j/. That is, fronting or heightening takes place in umlaut phonological process. If the forms that change are examined, that is the stem vowel, it will be seen that in each case where there is a back vowel in the present tense of a verb or singular form of a noun, the front vowel corresponding to it in height appears in one of the other forms. Thus, [a[alternates with [□]/[æ], [o] with [e] and [u] with [i] (cf. Sloat 1978:174-6).

There are some other languages in which umlauts exist besides German. Sommerstein (1977:218-20) explains the existence of umlaut in Icelandic and traces it to the "so-called Skaldic verse composed in Old Norse from ninth century onwards". Some languages have borrowed some of the forms of the German ä, ö or ü including Estonian, Finnish, Hungarian, Karelian, the Sami languages, Slovak, Swedish and Turkish. The use of the diacritic in these languages does not usually relate to instances of the historical phenomenon of the Germanic umlaut, but it often indicates sounds similar to those for which it is used in German. Apparently, umlaut is very visible in German and is also rooted in it. Umlauts are not found in any of the three major Nigerian tone languages, that is Igbo, Hausa and Yoruba.

Palatalization Differs from Umlauting

In the descriptive analysis of the umlaut process, it is noticeable that umlaut resembles palatalization. Both are phonological assimilatory processes, whereby the height of a high front vowel i or j in the neighbourhood is assumed by a preceding sound. However, palatalization differs from umlaut because in palatalization secondary articulations with the body of the tongue constitute an important type of consonant modification; in palatalization there is a secondary narrowing of the body of the tongue at the palatal region in addition to the primary constriction. Consequently, palatalized consonants have a characteristic y or i colouring (Schane 1973:21). Essentially, while palatalization involves articulatory consonant modification, umlaut involves vowel mutation. On account of this, the rule that generates umlaut cannot generate palatalization.

Submissions on the Umlaut Phonological Process

There is no hard and fast rule as regards the occurrence of umlauts in the modern high German; this is an anomaly, which causes a great deal of concern in German studies bearing in mind that language is a rule governed behaviour (Chomsky 1964). Though one may argue that German umlaut is better examined diachronically, it is clear that the use of generative grammar in the investigations has also brought illuminations with reference to umlauting and their suspicious positions in the sounds of German lexical items: it is a regressive assimilatory process occasioned by the presence of a high front vowel, /i/ or /j/ (especially in the Old German and Middle Age German) in a following syllable. The effects of the regressive assimilatory process in the Old German and Middle Age German are retained in the Modern German. Umlauts exist in some other languages of the world, for example English, but it is not overt. Therefore, the English learner learns the simple graphisation of the lexical items with its accompanying sounds with much ease. In the case of German, the learner is under an intense pressure of memorising the complex graphisation of the lexical items with their accompanying sounds with more efforts.

Furthermore, although umlaut takes place covertly in the realization of certain English words, it does not call attention like in German, where it exists overtly. Sequel to that, there is a strong need for the *Rechtschreibung* to also regularize the umlaut phonological process in similitude to the */ss/* versus */ß/*, which applications have been regularized:- */ss/* instead of */ß/* after short vowels, for example, *ein bisschen, ich esse, ein Missverständnis, zum Schluss, ich wusste es*, but after a long vowel and a diphthong one writes */ß/*, for example, *Gruß, Spaß, groß, süß, Strauß, Fleiß, äußern, draußen* (Goethe-Institut 2007). Subsequently, umlaut applications can equally be regularized just like the */ss/* and */ß/* applications, especially as it relates to the adjectives that end in *...lich, ...isch* and *...ig*.

Therefore, since umlaut is a significant graphicological feature in German grammar, there is a strong need for its occurrence to be regularized most especially in the environments where its presence is

suspicious. Typical examples of the cases where its presence is suspicious are in adjectival syllables that precede *...lich, ...isch* and *...ig*. The regularization will even make the lexical items look more German most especially as it relates to words that end in *...isch,* which are more often than not from English background. The effect of the implementation of this submission would be a facilitated German language learning.

Conclusion

In conclusion, it is clear that umlaut is a phonological, assimilatory process which involves stem vowel fronting and heightening. This has been accounted for via the generative theory coupled with a diachronic account. It is also observed that it can be found in some other languages like English, though not as prominent as in German. Nigerian major ethnic tone languages lack umlauts totally.

Finally, the umlaut diacritic can be used in 'sensational spellings' of English words for example in advertising or other special effects. As the German short /a/ is more open than the English sound /æ/, Germans sometimes use the diacritic (ä) to imitate the English sound in writing, giving an English "feel" to words used in advertising; in a McDonald's restaurant in Germany one can buy a "Big Mäc".

REFERENCES

Aufderstrasse, Hartmut. (2003). *Themen I aktuell. Kursbuch.* Ismaning: Hueber Verlag.

Berger, Dieter et al. (1972). *Duden: Zweifelsfälle der deutschen Sprache.* Mannheim: Dudenverlag.

Chomsky, N. (1964). *Current Issues in Linguistic Theory.* The Hague: Mouton.

Fischer-Forgensen, Eli. (1975). *Trends in Phonological Theory.* Copenhagen: Akademisk Forlag.

Goethe-Institut. (2007). *Die neue deutsche Rechtschreibung: Das Wichtigste auf einen Blick!.* 85737. Ismaning: Hueber.

Helbig, Gerhard and Buscha, Joachim. (2000). *Leitfaden der deutschen Grammatik.* Berlin: Langenscheidt.

Katamba, Francis. (1993). *Morphology.* Hampshire: Macmillan.

Mackensen, Lutz. (1986). *Deutsches Wörterbuch.* München: Suedwest Verlag.

Malmkjaer, Kirsten (ed.). (2002). *The Linguistics Encyclopedia, 2nd Edition.* London: Routledge.

Moeller, Jack and Liedloff, Helmut. (1984). *Deutsch heute: Grundstufe.* Third Edition. New Jerssy: Houghton Mifflin.

Paul, Hermann. (1992). *Deutsches Wöterbuch.* Tübingen: Max Niemeyer Verlag.

Preuss, Gisela (ed.). (1986). *Schüler Duden: Das Wissen von A bis Z.* Mannheim: Dudenverlag.

Schane, Sanford A. (1973). *Generative Phonology.* London: Prentice-Hall.

Sloat, Clarence et al. (1978). *Introduction to Phonology.* London: Prentice-Hall.

Sommerstein, Alan H. (1977). *Modern Phonology.* London: Edward Arnold.

Stad-Vej. (1980). *Der Grosse Brockhaus.* Wiedsbaden: F.A. Brockhaus.

Stang, Christian und Dudenredaktion. (2010). *DUDEN: Deutsche Rechtschreibung Praxis Kompakt.* Mannheim: Dudenverlag.

Stang, Christian und von Heyl, Julian. (2006). *DUDEN: Richtig schreiben- kurz gefasst.* Mannheim: Dudenverlag.

Stock, Karin A. (2007). *Deutsche Rechtschreibung aktuell: die neuesten Änderungen nach der Rechtschreibreform.* München: Compact Verlag.

Tus-Wek. (1988). *dtv-Brockhaus-Lexikon.* Mannheim: Deutscher Taschenbuch Verlag.

Wahrig, Gerhard. (1992). *Deutsches Wörterbuch.* München: Bertelsmann Lexikon Verlag.

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