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The lexicographical treatment of neo-classical compounds

ABSTRACT: Neo-classical compounds consist of a combination of a Greek or Latin word element and another element (affix or root). The morphological and semantic differences between these elements and affixes are such that the elements could be referred to as neo-classical roots. Neo-classical roots should be included as sublexical items in dictionaries. The lexicographer should be consistent in supplying etymological and phonological information regarding foreign word-elements and may neither ignore the productivity of neo-classical compounds, nor arbitrarily include or exclude them.

1. Introduction

This discussion will focus on a few ways in which lexicographers could treat neo-classical compounds responsibly. All examples are taken from two leading Afrikaans dictionaries, the *HANDWOORDEBOEK VAN DIE AFRIKAANSE TAAL* (HAT) and *NATIONALE WOORDEBOEK* (NW).

In his book *ENGLISH WORD-FORMATION* Bauer draws attention to a type of word-formation process which up to now has received scant attention in literature on English morphology. This process also occurred and still does in Afrikaans and lexicographers should consider its products for inclusion in a dictionary.

This word-formation process, which could be regarded as compounding or derivation, consists of combining a (usually) Greek or Latin word element with another element (affix or root). These Greek or Latin elements operate like affixes, but simultaneously display characteristics which distinguish them from affixes. The *OXFORD ENGLISH DICTIONARY* (OED) calls these elements "combining forms" while the HAT includes them as "word elements". In the NW the morphological status of these elements is not explained.

Bauer also quite rightly maintains that because of their unique occurrence, so-called "combining forms" or "word elements" can not simply be seen as affixes. He distinguishes between "Final Combining Forms (FCFs)" and "Initial Combining Forms (ICFs)".

2. Lexicographical aspects

Linguists' inability to decide on the morphological status of these particular combining forms has meant that the lexicographical treatment of such sublexical items can not be based purely on linguistic principles. The lexicographical treatment of the Greek and

Latin combining forms has been studied by examining thirty word examples (see Addendum). The sample consists of fifteen ICFs and fifteen FCFs. Their treatments in the HAT and NW were compared and the following conclusions were reached:

(a) All fifteen ICFs are included in the HAT while the NW has eleven of the ICFs mentioned. It therefore seems that the dictionaries include a representative group of ICFs.

(b) Only six FCFs are included as post-hyphenated lemmas in the HAT while the NW does not include any. This means that neither the HAT nor the NW present their frequency of use realistically.

This tendency can be ascribed to the traditional word-based structure of dictionaries and the fact that hyphenated lemmas in Afrikaans dictionaries represent more occurrences of first components than of second components. Lexical items smaller than words have only recently been accorded lemma status and first components are still given preference above second components. Lexicographers will have to pay more attention to this in the future, particularly where productive word-formation elements are concerned.

3. Other dictionaries

The following figures indicate the number of ICFs and FCFs from the above-mentioned list of 30 word examples that have been included in three major explanatory dictionaries.

	ICFs	FCFs
WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE	15	13
DIZIONARIO DELLA LINGUA ITALIANA	15	15
WÖRTERBUCH DER DEUTSCHEN GEGENWARTSSPRACHE	10	0

The fact that dictionaries tend to include a representative group of ICFs is yet again confirmed. It is noticeable, however, that the English and Italian dictionaries display a much greater representative group of FCFs than the Afrikaans and German dictionaries. Perhaps this should be attributed to the fact that English and Italian are Romanic languages, whereas Afrikaans and German are Teutonic languages. Despite these crucial differences, the frequency of occurrence of the Greek and Latin word-elements in Afrikaans and German is about the same as in English and Italian and therefore lexicographers should treat them uniformly.

In WEBSTER'S THIRD the sublexical variants of the lexical lemmas *mania* and *phobia* are for some reason or other omitted. It is also not clear why the WÖRTERBUCH DER DEUTSCHEN GEGENWARTSSPRACHE has included *hyper-* but not *hypo-* as a pre-hyphenated lemma.

An excellent treatment of neo-classical elements can be found in DIZIONARIO DELLA LINGUA ITALIANA. Not only does this dictionary have the most representative group of ICFs and FCFs of all the relevant dictionaries, but there are also clear indications throughout that some word-elements can function as both ICFs and FCFs.

It is furthermore very easy for the user to locate sublexical lemmas, because where they occur, the whole entry is placed between solid, vertical lines.

This very cursory study of the treatment of neo-classical elements in other dictionaries has revealed that the Afrikaans lexicographers can learn a great deal from their European colleagues.

4. Lemma status

ICFs and FCFs should be included as sublexical lemmas since in most cases they are unique components which only occur as roots (if one accepts that this word-formation process is actually compounding). They should not also be included as separate lexical lemmas. Sometimes it would seem as if combining forms such as *-chroom*, *-graaf*, *-gram* could also occur as independent words, but the lexical items *chroom* ("shiny, hard, brittle metal"), *graaf* ("tool for digging" or "title denoting nobility") and *gram* ("small mass in the metric system") are not related in meaning at all to *-chroom* ("colour"), *-graaf* ("writing") and *-gram* ("sketch"). With these hyphenated lemmas there will thus not be a cross-reference to the lexical lemma, which is the case in the HAT. This confirms that these are different lexical items.

5. Cross-references

Contrary to the sublexical items mentioned, the combining forms *homo-*, *outo-*, *-fobie*, *-foon* and *-manie* are related to the lexical variants *homo*, *outo*, *fobie*, *foon* and *manie*. The meanings of these nouns are deducible from those of the combining forms since the former developed by a process of "backformation" or "Rückbildung" from neo-classical compounds. Combrink (1989:230) calls this process "inkorting" (reduction) and refers to the formation of nouns of techno-roots such as *Afro*, *gastro*, *kilo*, *makro*, *mikro* and *neuro*. By using cross-references lexicographers can indicate such relationships.

For the HAT lemma *homo*, only "homosexual individual" is given, and for *outo*, "car", without any indication that these lexical items normally occur as ICFs, as in *homoseksueel* or *outomobiel*, for instance. *Homo* and *homo-* as well as *outo* and *outo-* are variant occurrences of the same lexical item. Normally the word variant can be regarded as the unmarked occurrence and the root variant as the marked occurrence. It seems as if the opposite is true for techno-roots. The root variant is excessively marked because it is the result of "Rückbildung". For the word variant, a cross-reference to the compound from which it has been formed should be given. Where the word variant has a broader value than simply the abbreviated form of one compound, the cross-reference should be to the hyphenated lemma. For *homo*, *homoseksueel* should be given as reference and for *outo*, *outo-*.

For the HAT lemma *fobie* the information is more comprehensive, but while *outo-* occurs as a hyphenated lemma, *-fobie* does not. For the lexical lemma *fobie*, *-fobie* should be given as reference. The lexical lemma is treated as follows:

fobie, (-ë). Sickly fear – used especially as second component of compounds ... *Agora-*, *bakterio-*, *hidro-* or *hipsofobie*. {As simplex < G. *phobos* fear; as second component of compound < G. *-phobia* fear for the thing mentioned}.

The sublexical item *-foon* is however included as a hyphenated lemma and explained as follows:

-foon. Second component of some compounds derived from G. *phone* noise, sound, e.g. *tele-*, *dikta-*, *mikrofoon*.

At the same time the dictionary explanation of the lemma *foon* states that this lexical item has been formed by *Rückbildung*. Compare "*foon* ... abbreviated form, especially in spoken language, of *telefoon*."

The lexical item *manie* is included and explained, but without any indication that as second component of a compound (cf. *xenomanie*, *monomanie*, etc.) it also occurs as a root. The sublexical lemma *-manie* is therefore missing. The polysemic values of *manie* are indicated as follows:

manie ... 1. Sudden craving, urge for something odd; exaggerated liking for something ... 2. (psychiatric) Mental condition marked by uncontrolled emotional, mental and physical overactivity, confusing behaviour and exhaltation.

The above entry could just as well have been in a psychiatrist's handbook or medical textbook, but whether such a definition is expected of any ordinary lexicographer is doubtful. From the preceding discussion it seems clear that the use of cross-references for neo-classical lemmas and compounds with neo-classical roots leaves much to be desired.

6. Etymology

While the HAT almost always indicates the etymology of foreign combining forms, the NW does not. Etymology is valuable to the dictionary user since it can enable him to interpret the unexplained lemmas or foreign lexical items (often technical words) which have not been included in the dictionary. Such information can therefore have an encoding value.

7. Phonological information

As far as phonological advice is concerned, the HAT occasionally gives some indication of how variations in ICFs are phonologically accounted for. Compare the following entry:

hidro-. Also *hidr-* (before vowels)...

Unfortunately the HAT is not consistent in this matter. Compare the following entries:

hipo-. Sometimes also *hip-* and *filo-*. Also *fil-*.

In these last examples the absence of the *-o* is not explained.

The NW offers valuable phonological advice by indicating the accent patterns of these word-formation products. This is clear from the following entries:

bio-: of living organisms, of that which lives. *Bioche'mie*, -'fisika, -*morfolo'gie*.

hidro-: water, liquid. *Hidroteg'nick*, -*tera'pie*.

hiper-: in very strong or excessive measure. '*Hiperanalities*, -*beleef*, -*krities*, -*modern*.

This information helps the dictionary user since the accent patterns of neo-classical compounds, and also those of other compounds, are not always systematically predictable.

8. Uniformity

Uncertainty about the morphological status of foreign elements is evident from the way in which the HAT treats the sublexical lemmas *bio-*, *hiper-*, *meta-*, *super-*, *-gram* and *-skoop*, to name but a few. Compare the lexicographical treatment of the following sublexical items:

1. **bio-**. Of that which lives... (G. *bios* life).
2. **hiper-**. Prefix from G. *huper*, meaning...
3. **meta-**. Word element meaning... (G. *meta*).
4. **super-**... (L.) First component of compound meaning...
5. **-gram**. Word element derived from G. *gramma* meaning...
6. **-skoop**. Suffix derived from G. *skopos*... meaning...

In 1 (as also in the NW) no indication of the morphological status of the lexical item is given. In 2 and 6 these items are referred to as affixes. In 3 and 5 "word element" is used and in 4 the reference "First component of compound" implies that this particular element is a root and is therefore involved in the formation of compounds.

This type of treatment confuses the dictionary user. It is necessary that a uniform pattern of description be followed; whatever the status lexicographers accord these elements. Moreover, the status of these elements should be linguistically justified.

9. Conclusion

Although the HAT accommodates a large group of Greek and Latin word-formation elements as hyphenated lemmas, it is not clear on what basis these have been included.

For instance, the following ICFs which occur just as frequently in Afrikaans have not been included in the HAT:

eko-. {G. *oikos* "house"} as in *ekologie, ekonomie, etc.*

lito-. {G. *lithos* "stone"} as in *litograaf, litoloog, litosfeer, etc.*

orto-. {G. *orthos* "correct"} as in *ortodoks, ortografie, ortopedie, etc.*

psigo-. {G. *psyche* "soul"} as in *psigoanalise, psigoloog, psigopaat, etc.*

Compounds in which these particular ICFs occur have been included in the HAT and lexicographically processed. This treatment negates the productivity of these elements while at the same time taking up space which lexicographers could use more judiciously.

As for neo-classical compounds, lexicographers should treat them as uniformly and as realistically as possible. In doing so, the so-called "difficult" words will be made more accessible to the layman.

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Addendum

Element	Meaning	English	Italian	German	Afrikaans
G. <i>astron</i>	"star"	<i>astrography</i>	l' <i>astrografia</i>	die <i>Astrographie</i>	<i>astrografie</i>
G. <i>bios</i>	"life"	<i>biochemistry</i>	la <i>biochimica</i>	die <i>Biochemie</i>	<i>biochemie</i>
G. <i>kheir</i>	"hand"	<i>chiromancy</i>	la <i>chiromanzia</i>	die <i>Chiromantie</i>	<i>chiromansie</i>
G. <i>élektron</i>	"amber"	<i>electro-analysis</i>	l' <i>elettroanalisi</i>	die <i>Elektroanalyse</i>	<i>elektroanalise</i>
G. <i>philos</i>	"having an affinity for"	<i>philharmonic</i>	<i>filarmónico</i>	<i>philharmonisch</i>	<i>f iharmonies</i>
It. ref. to Luigi Galvani	"using or produced by galvanic current"	<i>galvano-surgery</i>	la <i>galvano-chirurgiadie</i>	<i>Galvano-chirurgie</i>	<i>galvano-chirurgie</i>
G. <i>haima</i>	"blood"	<i>haematology</i>	l' <i>ematologia</i>	die <i>Haematologie</i>	<i>hematologie</i>
G. <i>hudor</i>	"water"	<i>hydrophilic</i>	<i>idrofilo</i>	<i>hydrophil</i>	<i>hidrofiel</i>
G. <i>huper</i>	"above, beyond"	<i>hyperbole</i>	l' <i>iperbole</i>	die <i>Hyperbel</i>	<i>hiperbool</i>
G. <i>hypo</i>	"beneath"	<i>hypodermic</i>	<i>ipodermico</i>	<i>hypodermatisch</i>	<i>hipodermies</i>
G. <i>homo</i>	"similar, alike"	<i>homosexual</i>	<i>omosessuale</i>	<i>homosexuell</i>	<i>homoseksueel</i>
G. <i>meta</i>	"with"	<i>metaphysics</i>	la <i>metafisica</i>	die <i>Metaphysik</i>	<i>metafisika</i>
G. <i>auto</i>	"self"	<i>autograph</i>	l' <i>autografo</i>	der <i>Autograph</i>	<i>outograaf</i>
G. <i>pseudos</i>	"false"	<i>pseudonym</i>	lo <i>pseudonimo</i>	das <i>Pseudonym</i>	<i>pseudoniem</i>
G. <i>super</i>	"over and above"	<i>superfine</i>	<i>sopraffino</i>	<i>superfein</i>	<i>supertyn</i>
G. <i>chroma</i>	"colour"	<i>monochrome</i>	il <i>monocromo</i>	* <i>einfarbig</i>	<i>monochroom</i>
G. <i>phuton</i>	"plant"	<i>sporophyte</i>	lo <i>sporofito</i>	der <i>Sporophyt</i>	<i>sporofiet</i>
G. <i>phobia</i>	"fear"	<i>agoraphobia</i>	l' <i>agorafobia</i>	die <i>Agoraphobie</i>	<i>agorafobie</i>
G. <i>phone</i>	"sound"	<i>dictaphone</i>	il <i>dittafono</i>	das <i>Diktaphon</i>	<i>diktafoon</i>
G. <i>gamos</i>	"marriage"	<i>endogamy</i>	l' <i>endogamia</i>	die <i>Endogamie</i>	<i>endogamie</i>
G. <i>graphos</i>	"something written"	<i>lexicographer</i>	il <i>lessicografo</i>	der <i>Lexicograph</i>	<i>leksikograaf</i>
G. <i>gramma</i>	"drawing"	<i>telegram</i>	il <i>telegramma</i>	das <i>Telegramm</i>	<i>telegram</i>
G. <i>kratos</i>	"strength, power"	<i>democrat</i>	il <i>democratico</i>	der <i>Demokrat</i>	<i>demokraat</i>
G. <i>kratos</i>	"strength, power"	<i>bureaucracy</i>	la <i>burocrazia</i>	die <i>Bürokratie</i>	<i>burokrasie</i>
G. <i>lithos</i>	"stone"	<i>granolith</i>	il <i>granolito</i>	der <i>Granolith</i>	<i>granoliet</i>
G. <i>logos</i>	"word"	<i>sociology</i>	la <i>sociologia</i>	die <i>Soziologie</i>	<i>sosiologie</i>
G. <i>mania</i>	"madness"	<i>dipsomania</i>	la <i>dipsomania</i>	die <i>Dipsomanie</i>	<i>dipsomanie</i>
G. <i>metrein</i>	"to measure"	<i>psychometry</i>	la <i>psicometria</i>	die <i>Psychometrie</i>	<i>psigometrie</i>
G. <i>pathos</i>	"suffering"	<i>sympathy</i>	la <i>simpatia</i>	die <i>Sympathie</i>	<i>simpatie</i>
G. <i>skopos</i>	"a means for viewing with the eye or observing in any way"	<i>microscope</i>	il <i>microscopio</i>	das <i>Mikroskop</i>	<i>mikroskoop</i>

* A FCF from G. *chroma* does not occur in German.