

## CYCLIC WORD FORMATION RULES AND THE HAPLOLOGICAL CONSTRAINT

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A Word Formation Rule (WFR) of the sort described in Aronoff (1976), while attaching a derivational suffix to a given base, most typically applies only once in the course of the derivation of a complex word. However, this is not always the case. There exists good evidence, coming from both English and Polish (and some other languages, too) pointing to the fact that certain suffixes may attach more than once to produce a complex formation.

A trivial example of such a phenomenon would be a case, whereby a single derivational suffix is repeated (even several times) in a complex word; i.e. it attaches to a base formerly derived by the same suffix. To illustrate this case, Dressler (1977:44) cites certain 'Polish intensified diminutives': *człowiecz-ecz-ek*, *nosecz-ecz-ek*, *wyjatecz-ecz-ek*, *cukierecz-ecz-ek* formed with the diminutive suffix *-ek*, undergoing palatalization to [eč]. In his opinion, these words are perfectly regular formations, although they violate his Haplological Constraint (cf. below). However, Dressler's argument seems to be misconceived at this point, as the above formations are not possible words within Polish vocabulary. First of all, they do not constitute a homogeneous word-class: the derivational source of *\*nos-ecz-ecz-ek* would be *nos*, whereas *\*człowiecz-ecz-ek*, *\*wyjatecz-ecz-ek* and *\*cukierecz-ecz-ek*, were they possible, would come, respectively, from the lexical elements *człowiek* (*\*człow*), *wyjatek* (*\*wyjət*)<sup>1</sup>, and *cukierek* (the latter being, in synchronic terms, semantically and probably also morphologically, distinct from *cukier*). It is an obvious fact that in all those

<sup>1</sup> As a matter of fact, the derivational origin of the word *wyjatek* may be traced back to forms like *wyjąć*, *wyjęty*, but the synchronic validity of such an explanation is rather dubious; anyhow the tentative suffix *-ek* here cannot stand for a marker of the diminutive.

three cases (i.e. *człowiek*, *wyjątek*, *cukierek*) the phonetic cluster [ek] does not function as a marker of the diminutive, although it is homophonous with it.

Secondly, Kreja (1969) mentions a principle which directly impairs the validity of the examples given by Dressler and renders them impossible:

Przedo wszystkim uderza to, że zdrobnień drugiego stopnia nie tworzy się w ogóle od tych zdrobnień, bardzo przecież we współczesnym języku polskim liczących, które zostały utworzone od tematów na *-k*, a więc od zdrobnień typu *-(cz)ek*.<sup>2</sup> Nie ma więc w języku polskim takich form zdrobniących jak *krzaczek* > \**krzaczeczek*, *pączek* > \**pączeczek*, *znaczek* > \**znaczeczek*, itd. To ograniczenie produktywności przyrostka zdrabniającego *-ek* nie jest wywołane żadnymi względami semantycznymi, lecz najprawdopodobniej czynnikami fonetycznymi, a w szczególności dążnością do uniknięcia bliskiego sąsiedztwa w jednym wyrazie dwu głosek *-cz-* (Kreja 1969: 87).

(One is, in the first place, struck by the fact that the second-degree diminutives cannot be formed from those diminutives, so numerous in Polish, which have been coined on the themes ending in *-k*, i.e. on diminutives of the type *-(cz)ek*.<sup>2</sup> Hence, there are no such diminutive forms in Polish as *krzaczek* > \**krzaczeczek*, *pączek* > \**pączeczek*, *znaczek* > \**znaczeczek*, etc.. This constraint on the productivity of the diminutive suffix *-ek* is not caused by any semantic reasons, but, most probably, by certain phonetic factors, in particular by the tendency to avoid close adjacency of two *-cz-* sounds in one word).

Apparently, the tendency mentioned by Kreja corresponds to Dressler's formulation of the Haplological Constraint. Thus, the Polish examples given by Dressler actually confirm, rather than violate, the Haplological Constraint by being totally ungrammatical<sup>3</sup>. The unacceptability of the formations under discussion is further confirmed by the Reverse Dictionary of Polish ("Index a Tergo") which lists no words ending in *-ecz-ecz-ek*, and is also in accord with Polish linguistic intuition.

If we take literally the above quotation, and, moreover, if we consider the above mentioned examples in terms of their surface phonetic form alone, which is a somewhat superficial perspective, the conclusion must be that in words like \**nos-ecz-ecz-ek*, \**dom-ecz-ecz-ek*, etc., the diminutive suffix appears three times in each case, and surfaces phonetically as either [eč] or [ek]. Then, following this surface line of reasoning, we would have to claim that the above words are impossible, as each of them exhibits a forbidden reduplication of the phonetically identical clusters [eč-eč]. This, may we repeat, is a consequence of viewing the constraint as operating at the surface phonetic level.

<sup>2</sup> This means that there are other intensified (second-degree) diminutives coined on themes not ending in *-k*, e.g. *baran* > *baranek* > *baraneczek*, *dom* > *domek* > *domeczek*, *kawał* > *kawałek* > *kawałeczek*, *obraz* > *obrazek* > *obrazeczek*, *sznur* > *sznurek* > *sznureczek*, etc. (ftn. mine — B.S.).

<sup>3</sup> This criticism does not, obviously, refer to other examples cited by Dressler (1977: 44), of certain Latin, Modern Greek, Spanish and Lithuanian suffixes repeated for intensification.

One crucial fact is missed, however, in such an interpretation. Namely, if considered in terms of their underlying phonological representation, the above words would emerge as being derived by means of two phonologically distinct suffixes (cf. Gussmann 1978:72,73): e.g. the underlying representation of \**nos-ecz-ecz-ek* would be /nos-ik-ik-ik/. The first suffix /ik-/ must be different from the second and the third (which are identical — /ik/), by the simple fact that the latter cause palatalization of the preceding consonant, while /ik/ does not (cf. \*[nos'-ek] v. [nos-ek]). Thus, there are two phonologically distinct diminutive suffixes involved in the derivation of the above formations: the difference consists in the quality of the underlying vowel which, being in both cases lax, is either front (palatalizing, /i/), or back (non-palatalizing, /ɨ/). This underlying contrast is phonologically neutralized, as both these vowels surface phonetically as [e]. Hence, it may be argued that the Constraint that rules out formations like \**nos-ecz-ecz-ek* on the grounds of their phonetic structure (immediate repetition of two phonetically identical suffixes [eč]), may, in an identical fashion, and with the same effect, operate at the abstract phonological level, although now it must make reference to a different pair of suffixes: /ik-ik/.

If we view the iterative application of the diminutive suffix /ik-/ as a result of the operation of a cyclic WFR<sup>4</sup>, then the above observations (including the suffix /ik/) may be illustrated in the following way:

Base	1st cycle		2nd cycle
	-ek/-ik/	-ek/-ik/	-ek/-ik/
nos	nos-ek	nos-ecz-ek	*nos-ecz-ecz-ek
dom	dom-ek	dom-ecz-ek	*dom-ecz-ecz-ek
kot	kot-ek	kot-ecz-ek	*kot-ecz-ecz-ek
człowiek		człowiecz-ek	*człowiecz-ecz-ek
wyjątek		wyjatecz-ek	*wyjatecz-ecz-ek
cukierek		cukierecz-ek	*cukierecz-ecz-ek

Table 1.

In this paper, we would like to examine a phenomenon more intricate than the one described above, namely cases when not just one WFR, but a block of two (or more) WFRs applies iteratively to a given base. This phenomenon has been discussed at some length in Chapin (1970), who attempts to account for it by means of the so-called "epicycle hypothesis". Subsequently we would like to demonstrate, how an analogue of the Haplological Constraint put forward by Dressler (1977:41) can be usefully employed as a formal criterion

<sup>4</sup> The term 'cyclic' used in this paper to characterize a special type of WFRs applying repeatedly to a given base should not be associated with the notion of 'cyclicity' developed within generative phonology, but rather — with Chapin's (1970) Epicycle Hypothesis concerning the operation of WFRs.



for assessing grammaticality of complex formations resulting from iterative 'epicyclic' application of certain blocks of WFRs.

Chapin (1970:58ff.) presents two three-member groups of English suffixational rules which may potentially operate more than once on a given, well-specified base. The first group consists of three suffixes: nominalizing *-tion<sub>N</sub>*, adjectivalizing *-al<sub>A</sub>*, and verbalizing *-ize<sub>V</sub>*. The table below illustrates the capacity of iterative application of the above set of formatives<sup>5</sup>:

BASE	1st cycle			2nd cycle		
	-(A)tion <sub>N</sub>	-al <sub>A</sub>	-ize <sub>V</sub>	-(A)tion <sub>N</sub>	-al <sub>A</sub>	-ize <sub>V</sub>
sense <sub>N</sub>	sens-ation	sensation-al	sensation-ize	sensation-	?sensation-	*sensational-
direct <sub>W</sub>	direct-ion	direction-al	direction-ize	direction-aliz-ation	?direction-alization-al	*directionalizational-ize
organ-ize <sub>V</sub>	organiz-ation	organizational-al	organizational-ize	?organizationaliz-ation	*organizationalization-al	*organizationalizational-ize

Table 2.

The second set under consideration includes the following suffixes: nominalizing agentive *-ist<sub>N</sub>*, adjectivalizing *-ic<sub>A</sub>*, and adjectivalizing *-al<sub>A</sub>*. Disregarding the manifold restrictions on the applicability of these three suffixes (cf. Chapin 1970:59—60), their iterativeness may be illustrated in the following way:

BASE	1st cycle			2nd cycle		
	-ist <sub>N</sub>	-ic <sub>A</sub>	-al <sub>A</sub>	-ist <sub>N</sub>	-ic <sub>A</sub>	-al <sub>A</sub>
phys-ical <sub>A</sub>	physic-al-ist	physical-ist-ic	physical-istic-al	physical-istical-ist	?physicalist-ic-ic	*physicalist-ic-ic-ic-al
real <sub>A</sub>	real-ist	realist-ic	realist-ic-al	realist-ical-ist	?realistic-alist-ic	*realistic-alist-ic-al

Table 3.

Cyclic derivational patterns of this sort may also be observed in other languages. Chapin (1970:60) gives an example of a pair of iterative suffixes in German: an adjectivalizing suffix *-lich<sub>A</sub>* and a nominalizing suffix *-keit<sub>N</sub>*. One

<sup>5</sup> We have quoted the examples after Chapin, being aware that one important objection may be raised against some of them, particularly in view of what has been said earlier. For instance, one may rightly claim that *sensation* can hardly be viewed to be derived from *sense* in any mechanical, regular fashion, at least not in the same way as *sensationalization* is derived from *sensationalize*; i.e. *sense* and *sensation* may (because of their semantics) be regarded as two different, derivationally unrelated lexical items, just as *cukier* and *cukierek*.

of them may apply iteratively to the output of the WFR attaching the other, e.g.: Schaden<sub>N</sub> 'shame' > schäd-lich<sub>A</sub> > Schäd-lich-keit<sub>N</sub> >

schäd-lich-keit-lich<sub>A</sub> > Schäd-lich-keit-lich-keit<sub>N</sub>

A similar situation obtains in Polish: the quite general, almost categorical WFR<sup>6</sup> attaching the suffix *-ość<sub>A</sub>* to derive nouns from adjectival bases, and the WFR deriving adjectives by means of the suffix *-ow(y)<sub>A</sub>* in a sense "feed" one another, as the application of one of them immediately enables the other to apply<sup>7</sup>. Consider for instance the following abstract nouns and adjectives:

BASE <sub>A</sub>	1st cycle			2nd cycle	
	-ość <sub>N</sub>	-ow(y) <sub>A</sub>	-ość <sub>N</sub>	-ow(y) <sub>A</sub>	-ow(y) <sub>A</sub>
przyszły	przyszłość	przyszłość-owy	przyszłość-ow-ość	*przyszłość-owość-owy	
odporny	odporność	odporność-owy	odporność-ow-ość	*odporność-owość-owy	
wolny	woln-ość	wolność-owy	wolność-ow-ość	*wolność-owość-owy	
cały	cał-ość	całość-owy	całość-ow-ość	*całość-owość-owy	

Table 4a.

<sup>6</sup> The claim about the almost 'categorical' (very productive) nature of this WFR has originally been expressed by Grzegorzczkova (1974: 66) who says: "NE [nomina essendi] prawie *kategorialne* powstają z przekształcenia przymiotnika na rzeczownik za pomocą suf. *-ość*: *aktualny* — *aktualność*, *bezwładny* — *bezwładność*, *mądry* — *mądrość*, *pracowity* — *pracowitość*, *stary* — *starość*, itp."

However, Grzegorzczkova admits a large number of exceptions to this general process: "Przede wszystkim istnieje bardzo wiele *wyjątków leksykalnych*, głównie w zakresie słownictwa dawnego. Tradycyjnie ustaliły się jako NE od pewnych przymiotników formacje z innymi sufiksami niż *-ość*, np. *dobry* — *dobroć* — *dobro*, *ciepły* — *ciepło* lub *ciepłota* (choć *ciepłość* wydaje się możliwe), *pusty* — *pułtka*, *zdrowy* — *zdrowie*, *zimny* — *zimno*, *gorący* — *gorąco*, *smutny* — *smutek*" (1974: 66).

According to Grzegorzczkova, new words belonging to this category are formed exclusively with the suffix *-ość*:

"Nowe NE od przymiotników tworzone są wyłącznie suf. *-ość*: *awangardowość*, *awaryjność*, *analogiczność*, *inwazyjność*, *ekonomiczność*, *cyniczność* (obok *cynizm*), *sceniczność*, itp." (1974: 67).

There are also other classes of exceptions to this WFR, mentioned by Grzegorzczkova (1974: 67):

"Podstawowe ograniczenie reguły: przymiotnik + *-ość* = NE ma jednak charakter semantyczny, polega na zawężeniu podstaw do przymiotników jakościowych, nierelacyjnych. Nie można tworzyć NE od przymiotników typu: *miejski*, *naftowy*, *leśny*, *rolny*, *matczyzny*, *plócienny* itp. Także przymiotniki, które są bardzo blisko związane z czynnością, nazywają cochę polegającą na wykonywaniu czynności, nie bywają podstawami NE, np. *wędrowny*, *żądny*, *ślawny*".

<sup>7</sup> This does not mean that there are no restrictions on this process. For the suffix *-ość* (cf. fn. 6.) *-ow(y)* is even more constrained: it definitely does not attach to any base



If the adjectival base itself is derived from a noun by means of the suffix *-ow(y)*, the order of the two suffixes within a cycle would be the reverse:

BASE <sub>N</sub>	1st cycle		2nd cycle	
	-ow(y) <sub>A</sub>	-ość <sub>N</sub>	-ow(y) <sub>A</sub>	-ość <sub>N</sub>
naród	narod-owy	narodow-ość	narodow-ość-owy	*narodowość-ow-ość
sąd	sąd-owy	sądow-ość	sądow-ość-owy	*sądowość-ow-ość
pech	pech-owy	pechow-ość	?pechow-ość-owy	*pechowość-ow-ość
lud	lud-owy	ludow-ość	ludow-ość-owy	*ludowość-ow-ość

Table 4b.

The curious qualities of certain WRFs, illustrated above, compel Chapin to the conclusion (1970:61) that although on the whole WRFs may be viewed as linearly ordered, in the particular cases where we are confronted with iterative application of certain groups of WRFs, it should be assumed that they operate cyclically, rather than linearly. This is the basic conjecture of Chapin's 'epicycle hypothesis'.

Leaving aside the implications and consequences of the above evidence for the important although difficult problem of ordering relations among WRFs, we shall attempt to answer another substantive question, namely: is the suffixational iterativeness of the cyclic formations like the ones above governed by any limitations or constraints inherent in the grammar, or is it potentially infinite? — which, to put it in to slightly different terms, would mean: are there any formal means, at a particular stage in the cyclic derivation, to assess the grammaticality and/or acceptability of a given complex formation? Chapin does not offer any such means or criteria. His position (1970:60) is that although "each new derivative receives an increasingly precise semantic interpretation" and "by the end of the second cycle the derivative is so narrowly precise as to be totally useless, and so internally complex as to be difficult to understand, this does not make it an impossible [ungrammatical] form".

In the remainder we would like to put forward a different solution of this problem, according to which a complex word like e.g. *\*organiz-ation-al-iz-ation-al* is not only "useless" and ruled out by the mere performance factors (phonetic and semantic complexity), but rather that it is ungrammatical and totally unacceptable. To demonstrate that this is the case, we need a precise formal criterion qualifying extra-complex formations of this sort as grammatical or

ending in *-ość*, e.g. *złość* — *\*złościowy*, *litość* — *\*litościowy*, *starość* — *\*starościowy*, etc. In all such cases certain additional semantic or formal criteria must be adduced to further constrain the applicability of the suffixes under consideration.

ungrammatical. We maintain that an analogue of the "Haplological Constraint" put forward by Dressler (1977) may successfully be employed to assess the grammaticality of formations resulting from the operation of cyclic WRFs.

As formulated by Dressler (1977:41), the Haplological Constraint, "which is very strict and rarely violated", "forbids the immediate repetition of VC, if the repeated sequence first terminates a morpheme and immediately afterwards introduces a derivational suffix":

\*[<sub>word</sub> derived W[<sub>theme</sub> XV<sub>1</sub>C<sub>j</sub>] <sub>suffix</sub> <sub>derivat.</sub> V<sub>1</sub>C<sub>j</sub>Y <sub>suffix</sub> <sub>derivat.</sub> Z] <sub>word</sub> derived

What emerges from Dressler's discussion and examples is that the Haplological Constraint performs basically two functions: it either blocks (rules out) a given formation, so that there is a gap in the lexicon, e.g. G. *\*stockfisch-isch*, G. *\*weizen-en*, E. *\*linen-en*, etc., or it effects a haplogy, so that one of the phonetically identical clusters is truncated and the formation surfaces as a phonetically acceptable word, e.g. E. *\*murder-er-ess* > *murder-ess*<sup>8</sup>, *\*slaughter-er-y* > *slaughter-y*, etc..

Our assumption is that in its former function, i.e. as a blocking device, the Haplological Constraint affects formations that are analogical to the complex words resulting from the operation of cyclic WRFs, presented above in this paper. The issue becomes more spectacular when we recall the Polish impossible diminutives like *\*człowiecz-ecz-ek*, *\*wyjatecz-ecz-ek*, *\*cukiernicz-ecz-ek* mentioned at the outset. The diminutive suffix *-ek/-ik/* applies twice in each case, giving [-eč-ek]. The Haplological Constraint eliminates these formations, as the theme-final cluster (not suffix) *-ecz-* is phonetically identical with the immediately following suffix *-ecz-*.

A similar situation obtains in impossible derivations like *\*nos-ecz-ecz-ek* (*\*dom-ecz-ecz-ek*, *\*kot-ecz-ecz-ek*, etc.), where, as it has been pointed out earlier, the two diminutive suffixes */-ik/* and */-ik/* (twice), in combination with palatalization, yield phonetic [-eč-eč-ek].

Observe, however, that although Dressler speaks of those words as formally satisfying the structural description of the Haplological Constraint, they would correspond to it only on the assumption that the symbol "Z" may stand for the word-final suffix [-ek]:

W X V<sub>1</sub> C<sub>j</sub> V<sub>1</sub> C<sub>j</sub> Y Z  
 \*[Ø *człowiecz-*] <sub>theme</sub> [-*ecz-* Ø] <sub>derivat.</sub> *-ek* <sub>suffix</sub> <sub>derivat.</sub> <sub>word</sub>

<sup>8</sup> Dressler makes a provision that forms like *murder-er* are not subject to the Haplological Constraint, because it operates exclusively at the surface phonetic level and, at this level, the two *-er* clusters are not identical (pronounced [me:dore] in British English). Still, he does not explain how the Constraint is prevented from application in the case when linking [r] intervenes (e.g. [me:doreretw:ek]).



It is still more disturbing to think about the way in which Dressler matches words like *\*nos-ecz-ecz-ek* with the structural description of the constraint. One is forced to accept a spurious constituent structure of this word:

W X V<sub>1</sub>C<sub>1</sub> V<sub>1</sub>C<sub>1</sub> Y Z  
 \* $[\emptyset \text{ nos-ecz-}]_{\text{theme}} [-\text{ecz-} \emptyset]_{\text{derivat. word}} [-\text{ek}]_{\text{derived suffix}}$

i.e. it emerges as being morphologically analysable into a kind of derived theme ( $[\text{nos-ec}\check{c}]_{\text{theme}}$ ) plus two suffixes. Morphological structure of this sort is weird at best and rather unlikely. Apparently then the Haplological Constraint, in its present formulation, cannot provide for the ungrammaticality of the above words, as it simply cannot apply to them. It can be argued that with a certain relaxation of the formal requirements that the Constraint entails, it will become more general, and, as such, it will increase its explanatory power, to give a correct account of not only the impossible words like *\*nos-ecz-ecz-ek*, but also of all sorts of cyclic formations discussed in this paper.

If this assumption is correct, the non-occurrence of such forms as *\*murder-er-ess* (which is adequately governed by the Haplological Constraint) and *\*organiz-ation-al-iz-ation-al* is evidence of the operation of a more general constraint forbidding the formation of words with a reduplicated sequence which satisfies one of the following general conditions:

- 1) a theme-final VC cluster and a suffix beginning with a phonetically identical VC cluster (the Haplological Constraint),  
 e.g. *\*murder-er-ess*  
*\*slaughter-er-y*  
*\*człowiecz-ecz-ek*, or
- 2) a theme-final VC cluster plus one (or more) suffix(es), and a group of two (or more) suffixes, if the two sequences are phonetically identical,  
 e.g. *\*now-ość-ow-ość*, or
- 3) two phonetically identical (groups of) suffixes, in a cyclically derived word,  
 e.g. *\*nos-ecz-ecz-ek* 1-member cycle  
*\*cał-ość-ow-ość-ow(y)* 2-member cycle  
*\*sens-ation-al-iz-ation-al-iz(e)* 3-member cycle

Formal enlargement of the Haplological Constraint to encompass the above three cases is rather difficult, as, particularly in case 3, it would require a substitution of the VC cluster with a sequence of Vs and Cs, as found in the examples under discussion, or in any instances that are potentially possible. Thus, e.g. if this broader constraint were to apply to sequences like *\*-ation-al-iz-ation-al-iz(e)*, it would have to make reference not only to the repetition of just one V and one C (case 1), but also — to reduplication of larger sequences:

$V_1C_1V_2C_2V_3C_3V_4C_4V_5C_5V_6C_6V_7C_7V_8C_8V_9C_9V_{10}C_{10} \dots - V_1C_1V_2C_2V_3C_3V_4C_4V_5C_5V_6C_6V_7C_7V_8C_8V_9C_9V_{10}C_{10} \dots$ , or, in cases like the German (*-lich<sub>A</sub>-keit<sub>N</sub>*), probably also to sequences beginning with a consonant.

The above observations may be further illustrated with the, already mentioned, formations resulting from the cyclic application of the suffixational complex  $\text{-ation-}a_A\text{-iz(e)}_V$  to the base *sense* (identical formatives have been italicized in each case):

	sense <sub>N</sub>
1st cycle	{ sens-ation <sub>N</sub> sens-ation-al <sub>A</sub> sens-ation-al-ize <sub>V</sub>
2nd cycle	{ sens-ation-al-iz-ation <sub>N</sub> ?sens-ation-al-iz-ation-al <sub>A</sub> *sens-ation-al-iz-ation-al-ize <sub>V</sub>

It is obvious that in the case of the last formation (*\*sens-ation-al-iz-ation-al-ize*) we are confronted with complete reduplication of the formative complex *-ation-al-iz(e)*. This normally happens on the completion of the second cycle (unless one of the cycles is 'defective', or certain dissimilation rules change the phonetic shape of the suffixes). Now, we claim that it is precisely at this stage in the derivation, that the extended version of the Haplological Constraint is at work, ruling out (blocking) words like *\*sens-ation-al-iz-ation-al-ize* and more complex ones. Hence, these words may be viewed as not only "useless" and "difficult to understand" (cf. Chapin 1970:60), but also as ungrammatical. Thus the Constraint helps to draw the distinction between the well-formed and ill-formed words of this sort.

It is a different matter that among the grammatical ones there are still certain considerably complex formations which, by many speakers, may at best be felt as potential in the language (e.g. *?sens-ation-al-iz-ation-al*). Consider for instance two, formally parallel sequences of Polish formations, derived by means of the pair of cyclic suffixes  $\text{-ość}_N\text{-ow(y)}_A$ :

cał-(y) <sub>A</sub>	}	v.	now-(y) <sub>A</sub>
cał-ość <sub>N</sub>			{ now-ość <sub>N</sub>
cał-ość-ow(y) <sub>A</sub>			1st cycle { ?now-ość-ow(y) <sub>A</sub>
cał-ość-ow-ość <sub>N</sub>			2nd cycle { *now-ość-ow-ość <sub>N</sub>
*cał-ość-ow-ość-ow(y) <sub>A</sub>			{ *now-ość-ow-ość-ow(y) <sub>A</sub>

\* The cycle may sometimes be 'defective'. Consider e.g. the cyclic attachment of the suffixational complex  $\text{-ation-}a_A\text{-ize}_V$  to the nominal base *nation*, which is a simple, one-morpheme lexical formative (*\*na-*) and, as such, does not undergo nominalization by means of  $\text{-ation}_N$  (*\*nation-ation*), parallel to *sense* > *sensation*. Subsequent steps in the derivation are, however, comparable; thus: *nation<sub>N</sub>* > *nation-a<sub>A</sub>* > *nation-al-ize<sub>V</sub>* > *nation-al-iz-ation* > *nation-al-iz-ation-a<sub>A</sub>* > *?nation-al-iz-ation-al-ize<sub>V</sub>* > *\*nation-al-iz-ation-al-iz-ation<sub>N</sub>*. In derived forms the root-final cluster *-ation* differs phonetically from the suffix<sub>N</sub> *-ation* due to a vocalic alternation [ei] : [œ].

Evidently, in the case of the derivation from *cały*, immediate reduplication of the suffixational pair *-ość-ow(y)* occurs on the completion of the second cycle and, consequently, the word *\*cał-ość-ow-ość-owy* ought to be regarded as ungrammatical, by virtue of the extended version of the Haplological Constraint. The situation is different with the derivatives from *nowy*: while the grammaticality of *?nowościowy* seems rather dubious, *\*nowościowość* as well as *\*nowościowościowy* are totally unacceptable. This being so is partly a matter of coincidence: complete reduplication occurs earlier in this derivational sequence due to the phonetic identity of the root-final VC cluster (*-ow*) and the suffix *-ow(y)*. These observations are further confirmed by the Reverse Dictionary of Polish ("Index a Tergo"): *całościowość* is recorded in it, although *\*nowościowość* is not nor is *\*nowościowy*.<sup>10</sup>

If the two phenomena, exemplified by the ungrammatical words like *\*murder-er-ess* and *\*sens-ation-al-iz-ation-al-ize* are really related and comparable in nature, then their separation would result in a failure to achieve an important objective of linguistic analysis, that of grasping significant generalizations. We have attempted to demonstrate that a general constraint expressing the restrictions on the formation of words like the ones above may be derived from Dressler's Haplological Constraint and it should find its place in the grammar of a language.

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<sup>10</sup> Among the Polish derivatives coined cyclically by means of *-ość<sub>N</sub>-ow(y)* there is one counterexample to our hypothesis: the word *wart-ość-ow-ość-owy* which is grammatical and recorded in the "Index a Tergo" (p. 512), in spite of the fact that it exhibits reduplication of the suffixational pair *-ość-ow(y)*.