

'ONE AFFIX — ONE RULE' VS. 'CATEGORIAL DERIVATIONAL RULE' — A RE-APPRAISAL

ANNA MALICKA — KLEPARSKA

Catholic University, Lublin

This paper deals with generality and simplicity as evaluation criteria for two selected approaches to generative word-formation. The work seeks to highlight the order and extent of generalisations made available by the model in which the rules of derivation subsume spell-out processes, as against the 'one affix-one rule' approach. The former model was presented and developed in Beard (1981), Laskowski (1981), Szymanek (1985) and Malicka-Kleparska (1985) — the latter by Aronoff (1976).

The problem of generalisations within the competing modes of linguistic description will be discussed on the basis of Polish open area locatives, formed with the suffix *-isk(o)* (*-owisk(o)*), e.g.: *ściernisko* 'stubble field', *torfowisko* 'peatbog', *siedlisko* 'habitat'.

The choice of this particular body of data, as well as the choice of theoretical issues, was prompted by Górska's paper "On the evaluation of models of word formation competence within the 'lexicalist framework'"¹. On the basis of locative data analysed within the two approaches mentioned above Górska discusses the lack, or inadequacy, of model evaluation parameters, including the generality and simplicity criterion.

This particular criterion appears to be marginal in Górska's work, partly due to the way the locative data is analysed; indeed, her two analyses within the competing models show little difference as regards elegance or perspicuity. Nevertheless, using even these descriptions one may argue that the merits of the generalisations made available by the two models are not equal. Thus, while

¹ The present work takes issue with some claims and solutions presented by E. Górska during the 21st International Conference on Contrastive Linguistics in her paper entitled "On evaluation of models of word formation competence within the lexicalist framework" on the 6th December 1985.

presenting briefly Górska's solution, we will point out the importance of the explanatory value of generalisations as opposed to their numerical implications.

The discussion of the nature of generalisations will be followed by a modified generative interpretation of locative data in Polish within the model which employs categorial derivational rules (henceforth CDR). Here we will discuss the extent of simplicity attainable in this system as compared with Aronoff's (1976).

Our argument concerning generality and elegance is designed to show that, irrespective of the (in)efficiency of other evaluation methods, the two criteria, applied to Aronoff's model (1976) and the other one, promote the latter as a more adequate way of handling word formation data.

As the theoretical investigations will be based on a specific body of data, it is in order to introduce the data at this point, (a more detailed presentation can be found in *Morfologia* (1984), pp. 356, 389, Grzegorzczkova (1979), pp. 48-49).

The data consists of morphologically complex, derived, open area locatives (i.e. names of areas that are not obviously enclosed and which can be loosely characterised by the concepts detectable in their stems). Apart from the semantics thus delimited, the group has in common the final word-formation sequence *-isk-* with its phonologically conditioned variant *-ysk-*, which is the only systematic marker of open area locatives in Polish².

The locatives possess corresponding in stems either nouns, adjectives or verbs (or their combinations) and these may be viewed as the bases of the locative derivation. The range of basic lexemes taking part in the locative derivation enables us to divide the whole set of locatives into several subgroups which will be described now.

The first subgroup of open area locatives possesses corresponding nouns, the stems of which plus the suffix *-isk* make up the derivatives:

(1)		
burak 'beetroot'	—	buraczysko 'beetroot field'
kartofel 'potato'	—	kartoflisko 'potato field'
ścierń 'stubble'	—	ściernisko 'stubble field'
cmentarz 'cemetery'	—	cmentarzysko 'burial ground'
bagno 'swamp'	—	bagnisko 'swampy ground'

² For the phonological changes involved see Gussmann (1980). Apart from the regular locative marker *-isk-* isolated examples of open area locatives can also have other markers, e.g.: *warzywnik* 'vegetable garden' (related to *warzywo* 'vegetable'), *dolina* 'valley' (*dół* 'the bottom'), *równina* 'plain' (*równy* 'level, Adj.'). On the other hand the formant *-isk-* can appear in augmentatives (to be discussed below), in names of handles, e.g.: *miotlisko* 'broom handle' from *miotła* 'broom', *peźzlisko* 'brush handle' from *peźzel* 'brush', etc.

Within the range of the general semantics of locatives the meanings of particular derivatives in (1) become diversified due to the semantic implications of individual nominal stems. Thus the open place characterised by the nominal lexeme *burak* would stand for a field, whereas the word motivated by *cmentarz* would mean an area for burying the dead.

Another class of open space names with related substantive lexemes involves more complex word-formation relationships; apart from nominal forms, such locatives also have corresponding relational adjectives in *-ow-* (spelt as *-ow-*)³. In (2) we include a few such examples:

(2)		
grad 'hail'		gradowisko 'the place where hail fell'
gradowy 'of hail, adj.'		
torf 'peat'		torfowisko 'peatbog'
torfowy 'of peat, adj.'		
grzyb 'mushroom'		grzybowisko 'place where mushrooms grow'
grzybowy 'of mushroom, adj.'		
gnój 'dung'		gnojowisko 'dung yard'
gnojowy 'of dung, adj.'		

Note that the locatives in (2), though semantically related to the substantives, possess in their make-up the formative *-ow-*, just like the adjectives.

The next major subdivision subsumes the open area names which have related stems ending in *-i-* and *-a-*. In (3) examples of both types are supplied:

(3)		
(a)		
(za)siedlić 'inhabit'	—	siedlisko 'habitat, biotope'
wyrobić 'work up'	—	wyrobisko 'excavation'
łowić 'hunt'	—	łowisko 'hunting ground'
(b)		
wyřabać 'cut down'	—	wyřabisko 'clearing'
osypać 'slope'	—	osypisko 'scree'
rozkopać 'dig'	—	rozkopisko 'excavated area'

The verbal stems and locatives derived from these may or may not be prefixed as the examples in (3) show.

The last group, which will be presented now, bears a superficial similarity to the locatives in (3b) in that its corresponding verbal stems also terminate in *-a-*, although *-a-* is regularly preceded by *-ov-*. One often finds nominal and

³ Random formations appear with other adjectives and participles, e.g.: *żytnisko* 'rye field' — *żytni* 'of rye', *spalenisko* 'site of a fire' — *spalony* 'burnt down', *zapadlisko* 'depression' — *zapadły* 'sunken', etc.

adjectival stems related to this group. Examples of all combinations are given in (4) below:

- (4)
- | | | |
|--|---|-----------------------------|
| gniazdo 'nest', gniazdowy 'of nest' adj., | — | gniazdowisko |
| gniazdować 'to nest' | | 'nesting place' |
| żer 'food', żerować 'to feed' | — | żerowisko 'feeding ground' |
| tok(i) 'tooting', tokowy 'of tooting' adj., | — | tokowisko 'tooting grounds' |
| tokować 'to toot' | | |
| skład 'storage', składowy 'of storage' adj., | — | składowisko 'storage area' |
| składować 'to store' | | |
| cuma 'mooring rope', cumować 'to moor' | — | cumowisko 'mooring area' |
| ładować 'to load' | — | ładowisko 'loading area' |

We hesitate to include (3b) and (4) under the same heading in spite of the stem final segment *-a-* that appears in verbal stems of both groups⁴. The reason why we separate the verbal stems in (3b) and (4) is that their morphological status is not the same; their inflectional paradigms differ, e.g.: *wyrąbać* 'cut down' — *wyrąb* 'id. 2nd pers. s.g imp.' vs. *cumować* 'to moor' — *cumuj* 'id. 2nd pers. sg. imp.'. In the case of *wyrąbać* the imperative form ends in the consonant that closes the root of the form, in the case of *cumować* the root is followed by *-uj* in the imperative. Moreover, the verbs in (4), unlike those in (3b) consist, as a rule, of a motivated substantive stem (e.g. *cum(a)* 'mooring rope') + *-ov-ai* (*cum+ov+ać* 'to moor') and thus should be treated separately.

The data in (1) — (4) briefly summarize the facts about open-area locatives in Polish, without any preconceptions as to whether they should be organized or explicated, and if so, how. However, one of the assumptions made by generative grammar is that, as a part of linguistic competence, word formation phenomena are organizable and explicable. To reflect the underlying regularities, derivational models employ, among other devices, word formation rules. Below, we will concentrate on word formation rules in Aronoff's (1976) and Malicka-Kleparska's (1985) approaches seen as instruments for expressing valid generalisations about morphological systems. It will be demonstrated that, by their very nature, the two rule formats make available very different generalisations, whose explanatory values are obviously not equal.

The discussion will proceed from an Aronoffian-type description of locatives, through CDR version of this (both as presented by Górska) and will conclude with a modified presentation (also within CDR framework).

⁴ *-a-* may even constitute a separate suffix since it is deleted in e.g.: *ługować* 'to leach' — *ługownik* 'lye vat', *bobrować* 'to rummage' — *bobrownik* 'rummaging person', *ładować* 'to load' — *ładownica* 'cartridge pouch', etc.

Since (in the arguments which follow) the main stress will be put on rules, let us recall the relevant principles of rule construction in Aronoff (1976). One of them deals with the bases of processes, the other, with the outputs. The former has been called The Unitary Base Hypothesis (Aronoff 1976, pp. 47—51), the other is known as the one affix-one rule principle (Aronoff 1976, pp. 63—64). The Unitary Base Hypothesis consists of the assumption that word formation processes take syntactically uniform bodies of lexemes as inputs, such as e.g.: transitive verbs, adjectives, etc.; the one affix-one rule principle requires additionally that all outputs possess the same affix if they are to be derived by a single rule. It should be stressed that the choice of this particular rule format is prompted by an a priori decision that further determines the shape of Aronoff's analysis.

Górska supplies an illustrative analysis of open area locatives along Aronoff's lines. This analysis will be quoted in toto below as it is not readily available. It includes four separate rules: one operating on forms such as those in (2), i.e. *Noun+ovisk*, the second on (1) — *Noun+isk*, the third on (3, 4) — *Verb+isk*, and the last also on (2), just like the first one, but this time with *Adjective+isk*. Górska conceives two rules, designed to operate on the same set of data in (2), to express the relationships that the derivatives bear to both nouns and adjectives; thus, e. g. *jagodowisko* can be interpreted as: "*jagod_N+owisk(o)* 'a field overgrown with blueberries' and *jagodow_{adj.}+isk(o)* 'blueberry field'. The whole set of Górska's rules will be given in (5) below:

- (5)
- (a) $[X]_N \rightarrow [[X]_N + owisko]_{N/Loc.}$ *jagodowisko* 'an open area overgrown with blueberries' — *jagoda* 'blueberry'.
 Base = [+countable, —animate] = non-derived = syllables₁² cf. **ptakowisko* — *ptak* 'bird', **leniowisko* — *leń* 'sluggard'
- (b) $[X]_N \rightarrow [[X]_N + isk]_{N/Loc.}$ *jagodzisko* 'an open area overgrown with blueberries' — *jagoda* 'blueberry' cf. **ptaszysko* (Loc.) — *ptak* 'bird', **lenisko* (Loc.) — *leń* 'sluggard'.
- (c) $[X]_V \rightarrow [[X]_V + isk]_{N/Loc.}$ *łowisko* 'fishery' — *łowić* 'to fish', *wysypisko* 'dumping ground' — *wysypać/wysypywać* 'to empty, to dump', *ładowisko* 'landing area' — *ładować* 'to land'.
- (d) $[X]_{Adj.} \rightarrow [[X]_{Adj.} + isk]_{N/Loc.}$ *jagodowisko* '*jagodowe* (adj.) *pole*' — 'blueberry field', cf. *blokowisko* ≠ **blokowe miejsce*,
 Base = [[Y]_N + ov] [Y]_N = Base as in (a) above *pole*
 [[X]_{Adj.} + isk]

When the linguistic competence model, as it arises from the rules in (5), is analysed, the following picture emerges: among other processes of word formation there are four that by pure chance result in a semantically, syntactically and morphologically uniform group of open area locative nouns ending in *-isk-*. In Aronoff's (1976) model all these similarities must remain fortuitous as there exists no mechanism to conflate separate word formation rules or to express their common characteristics — which, in the case at hand, are: the general meaning (open area name), the same lexical category (substantive derivatives) and the sequence in which our locatives end, i.e. *-isk(o)*. In other words, there are no means of capturing generalisations more holistic than the partial type, delimited by the Unitary Base Hypothesis and the one affix-one rule principle. Thus within Aronoff's (1976) approach the locative rules in (5) bear the same relationship to one another as to, say, the process yielding Nomina Actionis in *-ni(e)* (e.g.: *chodźć* 'walk' — *chodzenie* 'walking') or augmentatives in *-isk(o)* (*pies* 'dog' — *psisko* 'a big (friendly) dog'), or even to the denominal verb formation in *-ov-a(ć)* (e.g.: *bal* 'ball' — *balować* 'enjoy oneself thoroughly (at a ball)'). All these processes are monads impervious to cross-generalisations which go beyond the two Aronoffian principles of rule formation.

Accordingly, this model does not provide for a category of open area locatives in Polish; there are only names of places characterised by nouns, areas where some action takes place, grounds possessing some quality — all of these being separate and of equal status. The semantic, syntactic and morphological homogeneity of the whole set has been obscured by the imposition of the Unitary Base Hypothesis and the one affix-one rule principle, whereas no conflation mechanism is available.

The one affix-one rule assumption prohibits still another generalisation and makes an unwarranted prediction about the rules in (5) as it implies that a formative appearing in one rule bears no relationship to formatives in other rules; thus in spite of the fact that all open area locatives terminate in *-isk-*, each *-isk-* is a separate entity, having nothing to do with those belonging to other rules. Consequently, it is purely fortuitous that four separate processes with "accidentally" overlapping semantics should select the same phonological sequence out of dozens of suffixes available in Polish. All the processes in (5) would be expected to attach formally distinct sequences rather than identical *-isks*. Thus in Aronoff's (1976) model the fact that all open area locatives end in the same cluster is sheer chance; it is an analysis in which the semantic coincidence tallies unaccountably with the formal coincidence.

In the same analysis, by yet another coincidence, identical conditions on three separate rules are found in (a, b, d). The limitations (as stated by Górska) require that the respective bases contain [+countable] and [—anim-

ate] stems that do not exceed two syllables. Accordingly, in this analysis the following examples would be ill-formed: **bażancisko* 'loc.' from *bażant* 'pheasant, [+animate]', **jarzębinisko*, **jarzębinowisko* from *ja \$rzę \$bin(a)* 'rowan', *ja \$rzę \$bi \$now(y)* 'of rowan, adj.', **dobrowisko* from *dobro* 'the good, uncountable'. Three separate statements capturing the conditions necessary for three separate rules would lose the generality and economy which a single rule possesses.

Economy of description also features in the last argument against Aronoff-like rules of word formation. Recall that the body *od fata* in (2) can be derived by the rules in (5a) and (5d). Górska's reason for postulating two separate processes (de-adjectival and denominal) for the data is: "[...] that the Locatives such as *jagodowisk(o)* are both structurally and semantically ambiguous [...]", as they represent both *jagod_N + owisk(o)* and *jagodow_{ADJ.} + isk(o)*. In our opinion the distinction is unnecessary and brings about the obliteration of other vital semantic distinctions.

As to the apparent ambiguity of *jagodowisko*, in fact we are dealing here with two possible paraphrases of a single lexical item, not with two meanings. That *jagodowisko* should have two paraphrases is not surprising at all since it possesses the corresponding adjective *jagodowy* 'of blueberry' and the noun *jagoda* 'blueberry'. The adjective, in turn, is a relational derivative based on the substantive *jagoda*, i.e. it preserves the meaning of its base altering only its category. Consequently, we can construct paraphrases both with the noun and the adjective as modifiers — they are simply distinct syntactic constructions expressing the same meaning. We cannot claim that the number of possible paraphrases delimits the range of meanings of a single derivative because what we are virtually claiming in such a case is that every paraphrase possesses a different semantics and that our paraphrased derivative also has a separate semantics. In other words, if we were to carry the original argument about the ambiguity of *jagodowisko* to its logical conclusion, the claim that 'miejsce jagodowe_{ADJ.}' and 'miejsce gdzie rosną jagody_N' do not mean the same would imply that it is impossible to insist that *jagodowisko* itself contains either or both meanings; every single form would simply stand for a distinct meaning, not to be equated with any other form-meaning entity.

What is more, if we accept Górska's distinction of the two *jagodowisko* units, any attempt to distinguish pure homonymy from the "jagodowisko" phenomenon is bound to fail. In such a case *zamek* 'castle' vs. *zamek* 'lock', or *źniwiarka* 'woman harvester' from *źniwiarz* 'male harvester' vs. *źniwiarka* 'reaping machine' from *źniwo* 'harvest' and *jagodowisko* with its so-called ambiguity would be put on a par as homonymous forms, even though the first two examples both refer to two concepts while *jagodowisko* obviously refers to a single concept. However, if Górska's suggestions are followed within Aronoff's model, the processes necessary for the derivation of *jagodowisko*,

'a field overgrown with blueberries' and *jagodowisko*₂ 'blueberry field' as well as for the derivation of *żniwiarka*₁ 'reaping machine' and *żniwiarka*₂ 'woman harvester' are of the same kind and contain the same number of stages. According to an Aronoffian analysis, 4 rules would be involved in the derivation of the relevant forms: *jagoda* → *jagodowisko*₁, *jagodowy* → *jagodowisko*, *żniwo* → *żniwiarka*₁, *żniwiarz* → *żniwiarka*₂. Since the mechanisms of derivation would be identical in all cases, i.e. separate rules operating on distinct bases, the status of the meaning-form relations that results from the operation of the processes should be identical as well. We insist that this is not the case — *żniwiarka*, is an example of homonymy while *jagodowisko* — is not.

All the arguments presented above serve to show that Aronoff's (1976) word formation rules fail to reflect basic generalisations and make unwarranted predictions about morphological competence. Thus, all other things being equal, a model capable of avoiding such undesirable effects would be evaluated as superior.

The criticism presented above does not apply to the model which uses CDRs, which will be presented below. The solutions it offers to the basic problems involved in the former approach come from principles of rule construction other than the Unitary Base Hypothesis and the one affix-one rule assumption. The variant developed in Malicka-Kleparska (1985) is not restricted by these limitations. Instead, rules are viewed as complex devices consisting of a derivational formula and spell-out operations. The derivational rule specifies the base, which need not be of a single category (but individual lexemes are not mentioned), as well as semantic and syntactic modifications — whenever relevant. Thus as a result of a rule operation we get a semantico-syntactically uniform class of derivatives, which may come from a variety of bases. Consequently, one of the essential differences between Aronoff's (1976) and Malicka-Kleparska's (1985) approaches is the question of where uniformity lies: in the category of inputs in the former, in the semantico-syntactic nature of derivatives in the latter. By adopting the second solution valid cross-generalisations and predictions can be discerned.

Before the advantages of the categorial rule approach are discussed in detail let us quote the rule of open area locative derivation as presented by Górska within this model:

$$(6) \quad \forall [X]: [X] \begin{pmatrix} \text{Noun} \\ \text{Adj.} \\ \text{verb} \end{pmatrix} \quad [X] - \rightarrow [[X] + \text{Suff.}] \text{ N (locative 'an open area')}$$

The rule reflects the generalisation that open area locative nouns in Polish can be derived from nominal, adjectival and verbal bases. Hence, there is nothing accidental about the fact that all derivatives in (1) — (4) have the same category and the same general semantics; they are derivable by means of one

rule. Their uniformity is to be expected since a single process accounts for the formation of the whole set of locatives. Because the single rule mechanism forces us to treat them as a group, we will not be tempted, as would be the case in Aronoff's model, to classify e.g. denominal locatives with, say, Nomina Actionis (here formed by a different derivational rule). Summing up our model makes it possible to capture the generalisation about the uniform category of open area locatives in Polish.

The rejection of the Unitary Base Hypothesis has to be followed by other rearrangements leading to a more adequate account of word formation. These changes will be necessary for those classes of semantically and syntactically uniform derivatives which possess various formal markers. According to Górska this happens in the case of open area locatives. Górska claims that some of them are formed with *-ovisk-* (e.g.: *blok* 'building' — *blokowisko* 'an open area where there is a block of buildings') and some with *-isk-* (e.g.: *koczować* 'to be camped' — *koczowisko* 'camping place'). In order to preserve the generalisation about the uniform semantico-syntactic features of derivatives and to make formal distinctions between them, the model sets apart derivational operations (e.g.: formula in (6)) and spell-out processes⁵. These processes specify the shapes of particular markers together with certain conditions on their attachment. Thanks to such a solution Aronoff's one rule-one affix limitation does not apply to our model as a rule of derivation (e.g.: (6)) can subsume various affixational operations. Thus both uniformity and differentiation can be dealt with, while Aronoff's principles provide for differentiation alone.

To illustrate spell-out processes let us quote Górska's proposal, followed by a modified version of suffixation rules subsumed by (6). The latter system will help us to present other advantages and possibilities of the categorial derivational rule model.

As an alternative to the Aronoff-like analysis of locatives in (5), Górska offers the following set of suffixation (spell-out) operations subsumed by (6):

$$(7) \quad (a) \quad \exists Z : Z = [[X] + \text{ovisk}]_N \quad \text{potential locatives: } ?\textit{tajfunowisko} - \\ \text{if } X = [X]_N \begin{bmatrix} + \text{count.} \\ - \text{animate} \end{bmatrix} \quad \textit{tajfun} \text{ 'typhoon', } ?\textit{bazarowisko} - \textit{bazar} \text{ 'bazaar'}$$

⁵ It might be suggested that the symbol "Suff." in (6) be replaced by particular suffixes together with the conditions on their distribution and thus the separation of the derivational rule from its spell-out operations would not be necessary. However, if spell-out operations are presented as a separate block of processes, they can be ordered; the ordering proves necessary in many derivational operations. This, however, goes beyond the scope of this work. For detailed information see Szymanek (1985), Malicka-Kleparska (1985).

if $X = [X_N]$
 $= \text{syll}_1^2$
 $= \text{non-derived}$

(b) $\exists Z = [[X] + \text{isk}]_N$
 if $X = [[Y]_N + \text{ov}]_{\text{Adj.}}$

$Y_N = \left[\begin{array}{l} + \text{countable} \\ - \text{animate} \end{array} \right]$
 $= \text{syll}_1^2$
 $= \text{non-derived}$

(c) $\exists Z = [[X] + \text{isk}]_{N/\text{Loc.}}$
 if $X = [Y(+)\text{ov}]_V$
 $= \text{syll}_2^3$

existing locatives: *jagodowisko* 'an open area overgrown with blueberries'
 redundancy function: *jagodzisko* — *jagoda* 'blueberry'

potential locatives: de-adjectival
blokowisko — *blokowy* 'of building'
 existing locatives: *golfowisko* 'gol-
*fowe*_{Adj.} *pole* 'golf fields', *jagodo-*
wisko '*pole jagodowe*_{Adj.}' 'blueber-
 ry field'

redundancy function: *zimowisko* 'a special place where winter vaca-
 tions can be spent' — *zimowy* 'of winter'

potential locatives: ?*golfowisko* — *golf*
 existing locatives: *koczowisko* 'cam-
 ping place' — *koczować* 'to be en-
 camped', *lądowisko* 'landing
 place' — *ląd + ov + ac* 'to land'

redundancy function: *wysypisko*
 'dumping ground' — *wysypać/wy-*
sypywać 'to dump, empty'

The spell out rules in (7) consist of the formula introducing a particular suffix and the conditions on its attachment. For instance (7a) states that: There is (\exists) such a Z (derivative) that Z consists of X (base) + *ovisk*, if X is a [+countable], [–animate], non-derived noun with up to two syllables. The examples on the right illustrate the derivational possibilities of particular rules: "existing locatives" are the actual derivatives of a particular rule, e.g.: *bazarowisko*, "potential locatives" illustrate the range of the forms that can be produced by a given rule, as it is fully productive as regards all relevant bases, e.g.: ?*tajfunowisko*. The redundancy function mentioned among the examples will be explained below.

As (7) illustrates, Górska, following Malicka-Kleparska's (1985) model, spells out three separate rules of affixation for open area locatives. This, in terms of pure economy, constitutes a minor simplification in comparison with her Aronoffian version. The advantage is doubtful indeed when we contrast 4 processes in (5) with 3 in (7), especially since the derivational rule (6) is ne-

cessary in the latter approach. However, one should not forget that thanks to the latter solution we arrive at a single semantic and categorial statement, in itself an essential gain.

To reduce the number of affixational operations Górska utilizes the analytic potential of derivational rules. The rule (5b): $[X] \rightarrow [[X_N] + \text{isk}]_{N/\text{Loc.}}$ (e.g.: *jagoda* 'blueberry' \rightarrow *jagodzisko* 'blueberry field') is seen as superfluous here since all attested $N + \text{isk}$ locatives can be analysed by (6). This possibility arises in connection with the redundancy rule function of word formation processes in this model; all attested forms whose semantico-syntactic description corresponds to a given rule, e.g.: (6) can be analysed by this rule, as long as they have an appropriate base. Such redundancy rules apply even to formally irregular lexemes, i.e. to such lexemes that do not suit any of the spell-out operations of a given derivational rule. In the case at hand, e.g.: *kartoflisko* 'potato field' (with corresponding *kartofel* 'potato') will be analysed as a complex locative noun by (6): $X : X [\text{Noun, Adj., Verb}], X \rightarrow [[X] + \text{Suff}]_N$ (locative 'an open area'), in spite of the fact that regular denominal forms surface presumably as $N + \text{ovisk}$ (and not $N + \text{isk}$ — see (7a)). Consequently, Górska decides to abandon the $N + \text{isk}$ spell out rule, leaving such forms as *kartoflisko* to be analysed. Unfortunately, even with this modification, the economy of description does not improve significantly. However, if we reformulate Górska's spell-out block (7), we will be able not only to arrive at a simpler statement, but also to gain additional generalisations. Below a discussion to that effect will be offered.

The argument starts with (7a, b), the separation of which is unnecessary in our model. Górska justifies the distinction between denominal *-ovisk(o)* and de-adjectival *-isk(o)* rules in a twofold manner; on the one hand such derivatives as *jagodowisko* possess the supposedly distinct meanings connected with *jagodowy* and *jagoda*, on the other hand — locatives of the form $N + \text{isk}(o)$ should be distinguished from augmentatives. The first claim has been discussed and dismissed above as an obstacle for a homonymy analysis, the second will be dealt with presently.

According to Górska *-ovisk-* affixation is necessary in a locative derivation to distinguish the denominal open area locatives from denominal augmentatives such as *pies* 'dog' — *psisko* 'id. aug.'. If, to simplify the analysis, we want to reject the solution with distinct *-ovisk-* and *-isk-* markers, i.e. to derive *jagodowisko* from the adjective in *-ov-* (*jagodowy*) and *kartoflisko* 'potato field' from *kartofel* 'potato' + *-isk-* the denominal affixations in both locatives and augmentatives will share the same marker. Górska considers such a solution objectionable. We, however, see nothing strange in deriving homophonous forms by similar affixation rules, as long as the distinct derivational operations that they spell-out ensure that the respective derivatives are given distinct meanings. Thus the semantics is different while the forms can coincide.

In this way *kartoflisko* can have the two interpretations: 'potato field' (from *kartofel* 'potato' + locative rule) and 'big potato' (from *kartofel* + augmentative rule). Homonymy is not an infrequent phenomenon in morphology (see e.g.: *Słownik polskich form homonimicznych* 1984). Moreover, in the case of locatives and augmentatives the homonymy effect should not be over-estimated; in fact, the augmentatives in *-isk-* are formed primarily from [+animate] bases (see Kreja 1969, p. 205), unlike the locatives, whose bases are [-animate]. The discrepancy is even greater in the case of augmentative bases from stems with final labial consonants: they may take *-sk-* instead of *-isk-* (see *Morfologia* 1984, p. 368, e.g.: *szafa* 'cupboard' — *szafsko* 'id. aug.', *baba* 'woman, derogatory' — *babsko* 'id. aug.'). Consequently, homonymy is not a sufficient justification for hoarding (7a).

Since the semantic and homonymy arguments are not tenable, we abandon the solution in which denominal locatives are derived by means of the suffix *-ovisk-*. Instead, we will derive *jagodowisko* from the adjective *jagodowy*_{Adj.} + *isk* (and not from *jagoda*_N + *ovisko*). The connection of *jagodowisko* with the related noun *jagoda* can be read off from the derivational history of the adjective *jagod*_N + *ov(y)*. The advantage of such a solution consists in the fact that only one formal marker (*isk*) is needed for open area locatives.

The reduction of the number of relevant suffixes to one enables us to simplify the locative processes radically; a single spell-out operation aided by additional conditions on bases will tack on *-isk-* to all the categories specified in (6) which we repeat below as (8):

$$(8) \forall X : X \begin{cases} \text{Noun} \\ \text{Adj.} \\ \text{Verb} \end{cases} \quad X \rightarrow [[X] + \text{Suff}]_N \text{ (locative 'an open area')}$$

The rule of derivation (8) will subsume the single affixation rule in (9):

$$(9) \exists Z : Z = X + isk$$

Thanks to this solution the generalisation about the common ending of the whole class of open area locatives is expressed by a single rule and conditions on particular bases have to be stated only once — in other words, the cross-generalisations lost in Aronoff-like analysis (5) are recaptured.

The conditions on bases, as in the alternative variant, indispensable here, will be stated below. Note, however, that the solution uses a single suffixation to cover all relevant instances at the same time, without unnecessary repetitions.

The first condition ensures that the bases have up to 3 syllables:

$$(10) X^3$$

e.g.: *ściern* 'stubble' — *ściernisko* 'stubble field'

ko \$ni \$czyn(a) 'clover' — *koniczynisko* 'clover field'
ja \$go \$dow(y) 'of blueberry' — *jagodowisko* 'blueberry field'
wy \$ro \$bi(ć) 'to work up' — *wyrobisko* 'excavation'

The nominal bases of locatives and of the relational adjectives that in turn constitute inputs to (9) are non-derived (simple), [-abstract] and [-animate]⁶:

(11)

$$X = \begin{cases} \text{-abstract} \\ \text{-animate} \\ \text{non-derived} \end{cases} \text{Adj.}$$

e.g.: *ściern* 'stubble' — *ściernisko* 'stubble field'
torf 'peat' — *torfowisko* 'peatbog'
kierownik — **kierownikisko*
 'director'
dziadowy — **dziadowisko*
 'of beggar, Adj.'
dobro — **dobrowisko*
 'the good'

Apart from the conditions in (10) and (11), which are applicable to more than one category of bases, more specific limitations are also necessary. For instance, only the relational adjectives terminating in *-ov-* (see Szymanek 1985, p. 151 for a detailed review on relational adjectives) can serve as locative bases. For verbs we need to distinguish three categories of basic lexemes.

$$(12) X_V = [Y + i, a, ova]^7$$

e.g.: *(za)siedl* + *i(ć)* 'inhabit' — *siedlisko* 'habitat'
*wyr*ba(ć) 'cut down' — *wyr*bisko 'clearnig'
tokowa(ć) 'to toot' — *tokowisko* 'tooting grounds'

Note that each condition is stated only once — a result which cannot be attained in Aronoff's type of derivation where all rules are separate entities with separate limitations. Consequently, our variant gains in the generality of its morphological description. It is much simpler even in terms of the number of rules involved.

⁶ The conditions on the attachment of affixes are different in Górska's solution than in ours. We have decided on the feature [-abstract] instead of [+countable] because of such examples as *ściern* — *ściernisko*, *torf* — *torfowisko* (see (11)), etc. where the basic noun is not countable, but still [-abstract]. Furthermore, such forms as *koniczynisko* from *ko*\$ni\$czyn(a) (see 10) show that the nominal stem can have up to 3 syllables, and not up to 2.

⁷ The question arises whether *-a-* is here a separate suffix, or a part of the *-ova-* formative. We leave it unanswered, see however Note 4 and the examples and the comment to (4).

Both the Aronoff-like analysis and the CDR variant describe the same part of Polish morphological data — the open area locatives. The former misses valid generalisations about the common characteristics of the open area locative derivatives and makes unwarranted predictions about the workings of word formation competence. The latter has none of these drawbacks; additionally it is more economical (4 rules in (5) against 2 in (8), (9) with no repeated information).

On the basis of these investigations of the adequacy of models we feel justified in claiming that, even if it achieves nothing else, at least the yardstick of essential generalisations and simplicity can serve as a criterion for an evaluation of Aronoff's one affix-one rule approach as against the CDR model.

REFERENCES

- Aronoff, M. 1976. *Word formation in generative grammar*. Cambridge, Mass.: The MIT Press.
- Bartmiński, J. (ed.). 1981. *Pojęcie derywacji w lingwistyce*. Lublin: Uniwersytet Marii Skłodowskiej-Curie, Zakład Języka Polskiego.
- Beard, R. 1981. *The Indo-European lexicon. A full synchronic theory*. North Holland Linguistic Series. Amsterdam: North Holland.
- Buttler, D. (ed.). 1984. *Słownik polskich form homonimicznych*. Wrocław: Ossolineum.
- Górska, E. (forthcoming). "On the evaluation of models of word formation competence within the lexicalist framework."
- Grzegorzczkowska, R. 1979. *Zarys słowotwórstwa polskiego. Słowotwórstwo opisowe*. Warszawa: Państwowe Wydawnictwo Naukowe.
- Grzegorzczkowska, R., R. Laskowski and H. Wróbel (eds). 1984. *Gramatyka współczesnego języka polskiego. Vol. 2. Morfologia*. Warszawa: Państwowe Wydawnictwo Naukowe.
- Gussmann, E. 1980. *Studies in abstract phonology*. Cambridge, Mass.: The MIT Press.
- Kreja, B. 1969. *Słowotwórstwo rzeczowników ekspresywnych w języku polskim. Formacje na -ik, -k, -isko i -ina*. Gdańsk: Gdańskie Towarzystwo Naukowe.
- Laskowski, R. 1981. "Derywacja słowotwórcza". In J. Bartmiński (ed.) 1981. 107—26.
- Malicka-Kleparska, A. 1985. *The conditional lexicon in derivational morphology. A study of double motivation in Polish and English*. Lublin: Katolicki Uniwersytet Lubelski.
- Szymanek, B. 1985. *English and Polish adjectives. A study in lexicalist word-formation*. Lublin: Katolicki Uniwersytet Lubelski.