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A NEW LOOK AT SUPPLETION IN POLISH

1. INTRODUCTION

The original stimulus for this work came from a virtual visit on the web page http://www.smg.surrey.ac.uk, featuring the *Surrey Suppletion Database* (cf. HIPPISLEY *et al.* 2004; CORBETT *et al*. 2005). Browsing through the data and resources available there, I realized that this rich typological survey[1] may provoke some interesting questions on the status of suppletion in Polish. Of course, suppletion is a pretty marginal phenomenon in Polish and its classical examples have been cited in standard grammar-books as well as some shorter contributions (see the references below). But, given the vast comparative evidence available today, the concept is worth exploring again. Besides, as pointed out in MARKEY (1985: 53), suppletion, even today, "remains poorly understood". The basic aim of this paper is quite modest: to bring together the canonical examples of suppletion in Polish, give their characteristics and, on this basis, to shed some new light on a few theoretical problems and implications like the scope and definition of the concept itself, the graded nature of suppletion in the context of other kinds of formal irregularity, frequency factors in Polish suppletion, derivations from suppletive forms as well as implications for lexical representation.

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[1] The Database discussed in CORBETT *et al.* (2005) is based on 34 languages, each representing a different language family; the (only) representative of the Indo-European family is Russian. (This study also contains a useful bibliography of inflectional suppletion.) However, the earlier version of the Database outlined in HIPPISLEY *et al*. (2004) contained only 30 languages/families, with no representative of the Indo-European division.

2. SCOPE OF THE PHENOMENON

Cross-linguistically, suppletion is a pervasive phenomenon although, as a rule, it affects only a few lexical items in a given language (see e.g. HIPPISLEY *et al.* 2004). It may be defined as follows: "Suppletion is a relation between signs X and Y such that the semantic difference … between X and Y is maximally regular … while the phonological difference is maximally irregular" (MEL'ČUK 1994: 343, quoted in HIPPISLEY *et al.* 2004: 388).[2] A more elaborate definition of the concept may be found in MEL'ČUK (2000: 512), which is preceded by the following remark: "[…] suppletion is neither a linguistic entity nor a linguistic operation; in particular, it is not a linguistic sign or a component of a sign. It is a relation between two segmental linguistic signs *X* and *Y*." (MEL'ČUK 2000: 510). In what follows, I wish to adhere to the 'narrow' interpretation of suppletion, along the lines suggested in HIPPISLEY *et al*. (2004: 389). Thus, one can limit the scope of the phenomenon to (1) inflectionally related forms of a lexeme only, thus excluding putative examples of derivational or lexical suppletion; (2) stems only, at the exclusion of affixes; (3) cases of total or strong suppletion only, as opposed to partial or weak suppletion, i.e. those ones where "the relationship between stems is *maximally* irregular" (HIPPISLEY *et al*. 2004: 389). By stipulation (1), Polish pairs like *baran* 'ram' : *owc-a* 'ewe' clearly fall outside the purview of this survey, even though they are considered as good instances of suppletion conceived of more broadly (see e.g. MELČUK 2000: 520). In earlier accounts, lexical suppletion was often recognized as a special type of the phenomenon in question (cf. DRESSLER 1985 on suppletion in word-formation). The term was applied, for instance, to English pairs like *father* : *paternal*, *lip* : *labial*, *mind* : *mental*, etc., which involve native Germanic nouns and corresponding Latinate adjectives (see ARNOLD 1973: 222). In Polish, lexical or "derivational" suppletion might be illustrated with examples like *ogier* 'stallion' : *kobył-a* 'mare', *pies* 'dog' : *szczeni-ę* 'pup', *szyć* 'sew' : *krawiec* 'tailor' (APRESJAN 1974/95: 163). The underlying idea is that members of such pairs, though unrelated and unpredictable formally, reveal semantic contrasts

[2] An earlier formulation of this principle may be found in MEL'ČUK (1976: 45): "The core of the suppletion concept is that two linguistic units A and B, which are semantically related in an obvious and regular manner, are formally, or materially (that is, on the expression level), 'completely dissimilar' to each other […]". See also MEL'ČUK 1994. VESELINOVA (2006) discusses the definition and history of the concept, as well as different hypotheses concerning the diachronic development of suppletive forms in verb paradigms.

that are representative of regular patterns found in word-formation; cf., respectively, *lew* 'lion' > *lw-ic-a* 'lioness', *lew* 'lion' > *lwi-ątk-o* 'lion cub', *pis-a-ć* 'write' > *pis-arz* 'writer'. Similarly, ANDERSON (1992: 188) speaks of "suppletive bases" in English derivation, illustrating the concept with the verb-stem allomorphy *-ply/-plic* evidenced by pairs like *apply* > *application*, *multiply* > *multiplication*, even though the formal difference (and hence the alleged suppletion) is only partial here. By virtue of restriction (2), one may by-pass whatever analogs exist in Polish of the well-know English case *ox* : *ox-en* where the plural suffix, arguably, might be treated as an instance of affixal suppletion; cf. VESELINOVA 2006: 9: "allomorphs of one and the same grammatical morpheme that are not phonologically conditioned are considered suppletive". Finally, by requirement (3), i.e. "maximal irregularity", suppletion in the narrow sense (so-called total suppletion) is not recognized in cases like the English pair *child* : *children*, even though the two forms of the root are partially dissimilar and the difference cannot be accounted for by the rules of the phonology. By the same token, the Polish equivalent pair *dzieck-o* 'child, nom./acc.sg.' : *dziec-i* 'children, nom./gen./acc.pl.' must be dismissed, even though there is, in fact, a slight irregularity here: the stem-final consonant /-k/ of the singular form gets deleted (truncated?), in an unpredictable way, in the plural (cf. **dziecka* 'children, nom.pl.' as opposed to the regular pattern, e.g., *cacko* 'gadget, trinket, nom.sg..' : *cacka* 'id., nom.pl.). A better example of partial suppletion is offered by the paradigm of the noun *tydzień* 'week, nom.sg.', whose form of the nominative singular contrasts with the remaining, partially irregular members of the paradigm; for instance, *tygodni-a* 'id., gen.sg.', *tygodni-e* 'nom. pl.', *tygodni-ami* 'instr. pl.', etc. Further examples of partial inflectional suppletion in Polish may be found, for instance, in LASKOWSKI (1999: 142, 235-236). Most such cases are evidenced by certain irregular verbs, e.g. the verb *jechać* 'go, travel' is represented by the following inflectional stems: *jecha-* vs. *jad-/jedź-*. But other categories are also sporadically affected by partial suppletion; cf. the comparative (and superlative) of the adjective *mał-y* 'small' : *mni-ej-sz-y* 'smaller' and the adverb *mał-o* 'little, few': *mni-ej* 'less, fewer', or the numeral *dw-a* 'two : *drug-i* 'second', where the first consonant is identical in otherwise dissimilar stem pairs.

But still, adopting all the three limitations mentioned above does not give a clearly defined set of suppletive relations for Polish. This is mainly because the three distinctions the re(de)fined notion of suppletion hinges on are notoriously obscure, in the first place. First, it ought to be pointed out

that criterion (1) put forward by HIPPISLEY *et al*. (2004) may be inconclusive since, of course, the distinction between inflection and derivation is hard to draw: cross-linguistically, a given process, like the formation of diminutives or augmentatives, may be inflectional in one language and derivational in another (see ANDERSON 1985: 162). Secondly, within the confines of a single language system, the status of a given process/category may be ambiguous between inflection and derivation. Such is the case with comparison of adjectives (and adverbs) in Polish. Although the traditional view has it that comparison in Polish is an inflectional phenomenon, according to some contemporary accounts the nature of this process is derivational (see e.g. KALLAS 1999: 503). To take another example, the regular formation of adverbs from adjectives in English, by means of the suffix *-ly* (e.g. *wise* > *wisely*), which traditionally has been regarded as an instance of derivational morphology, today is sometimes portrayed as an inflectional operation (for this view, see e.g. QUIRK *et al*. 1985: 1556; ARONOFF and FUHRHOP 2002: 481). If we follow this line of reasoning, it is not surprising that one gets an instance of suppletion like the English pair *good* (Adj.) : *well* (Adv.).

Another complication that may prevent us from arriving at a definitive catalogue of suppletive pairs in Polish is actually due to the ambiguity of the notion "phonologically unrelated stems" which is the key term in the definition of suppletion. Of course, in individual cases, the decision may crucially depend on the phonological framework that is adopted, either explicitly or implicitly. For instance, the phonetic differences evidenced by the paradigm of the Polish verb *ciąć* 'cut' (cf., for instance, *tn*(*ę*) – 1st person sg. pres.) are viewed by MELČUk (2000: 514) as sufficient for treating the two stems as suppletive, even though they are etymologically identical. This seems to presuppose a fairly concrete model of Polish phonology. On the other hand, the difference in the pair of stems *cią-* : *tn-* (also *cię-* as in *cię-t-y* 'past participle') used to be described as resulting from various phonological processes (like palatalisation, V-deletion, etc.) within the more abstract approaches to Polish phonology (see, for instance, GUSSMANN 1980). In contemporary accounts of Polish phonology, this formal difference is still regarded as being due to allomorphy, because "there is evidence for the vowel~zero alternation" (GUSSMANN 2007: 201). Likewise, the verb *ciąć* is not included on the list of irregular verbs with suppletive stems, as given in LASKOWSKI (1999: 235-236). In other words, it appears that Melčuk's interpretation of these facts is somewhat far-fetched. On the other hand, Polish offers notable examples of "non-phonological alternations" which yield for-

mally related stem pairs that are neither strictly suppletive nor accountable for by means of regular phonology (see GUSSMANN 2007: 17); one case in point is the diminutive *ptasz-ek* 'little bird' < *ptak* 'bird', with the root-final alternation [š] ~ [k], instead of the regular and hence expected alternation [č] ~ [k] – cf. **ptacz-ek*).

Bearing in mind the complications and limitations mentioned above, I give below most of the few generally recognized instances of total inflectional suppletion in Polish. The list is based on LASKOWSKI (1978: 339), LASKOWSKI (1999: 142, 235-236) and MAŃCZAK (1996:105-106):

(1) człowiek 'man' : ludzi-e 'men'
rok 'year' : lat-a 'years'
dobr-y 'good' : lep-sz-y 'better
zł-y 'bad' : gor-sz-y 'worse'
duż-y 'big' : więk-sz-y 'bigger'
dużo 'much/many' : więcej 'more'
jed(e)n- 'one' : pierwsz-y 'first'
jest 'is' : s-ą 'they are' : by-ł 'he/it was' : będ-ą 'they will be' (by-ć 'be')
idzi-e 'goes/is going' : szed-ł 'he/it was going' : sz-ł-a 'she was going' (iś-ć 'go')[3]

As may be seen, the following categories are involved in the totally suppletive stem-forms listed in (1): Number (for nouns), Degree (for adjectives and adverbs), Tense etc. (for verbs) and the opposition Ordinal vs. Cardinal numeral. In the case of the irregular verbs, the number of suppletive stems may be higher than two. For instance, the lexeme *być* 'be' reveals at least four suppletive variants, if we disregard further morphonological alternations: *będź-* and *bądź-*, seen in the future tense and the imperative, respectively.

3. SUPPLETION ON THE SCALE OF (IR)REGULARITY: POLISH COMPARATIVES

Let us now focus on adjectival comparison in Polish. First, for the two pairs of adjectives *duż-y* 'big' : *więk-sz-y* 'bigger' and *mał-y* 'small' : *mni-*

[3] Other examples of inflectional suppletion in Polish involve pronouns like *ty* 'you, sing.' : *wy* 'you, pl.', *my* 'we' : *nas* 'id. Gen./Acc.', etc. It will be noticed, by the way, that the suppletive stems evidenced for the verb *iść* 'go' also show up in the aspectual pair: *iść* 'go' (imperfective) vs. *pójść* 'go' (perfective) as well as in the corresponding forms of the participle: thus *idąc* 'going' (adverbial participle) vs. *poszedłszy* 'having gone'.

ej-sz-y ‘smaller’, which, traditionally, are both regarded as genuine examples of suppletion (see e.g. MAŃCZAK 1996: 105), only the former will meet the stringent interpretation of the concept, as outlined in section 2 above; the latter adjective must be rejected, or treated as a case of weak (partial) suppletion, because the irregularity is not maximal in the sense that the two forms of the stem share the same initial consonant /m-/. But when we look at some other examples of adjectival comparison, it will turn out that, for various reasons, the line separating narrowly defined total suppletion from other (weaker, or totally irrelevant) cases is really hard to draw. In fact, it appears that the dichotomy total vs. partial suppletion is hard to maintain; cf. the following remark in DRESSLER (1985: 98): “[…] the distinction between weak and strong suppletion is gradual”. This idea is echoed in MEL’ČUK (2000: 517): “an important aspect of suppletion […] is that it is a gradient”. At any rate, the contrast in question should be placed against the broader background of several degrees of formal irregularity (cf. also CARSTAIRS-MCCARTHY 1994, CORBETT *et al.* 2001: 209 or DRESSLER’s 1985: 98) “eight-point-scale of morphotactic transparency”). Before we consider the examples to follow, it needs to be added that there are, in principle, two regular patterns of adjectival comparative formation in Polish: one is evidenced by pairs like *słab-y* ‘weak’: *słab-sz-y* ‘weaker’ where the comparative is formed by the attachment of the suffix *-sz-* to the base-form, while the other pattern uses an extended marker of the comparative, *-ej-sz-*; for instance: *mocn-y* ‘strong’ : *mocni-ej-sz-y* ‘stronger’. The two variants are, by and large, phonologically conditioned: the extended suffix *-ej-sz-* appears after stems terminating in most consonantal clusters while the shorter marker *-sz-* attaches to stems ending in a single consonant as well as certain clusters (for details, see KALLAS 1999: 503; KREJA 1989: 86). In both cases, the prefix *naj-* is used to form the superlative (*naj-słab-sz-y*, *naj-mocni-ej-sz-y*, respectively).[4]

(2)	*Adjective*	*Comparative*	*Superlative*
(a)	dobr-y ‘good’	lep-sz-y	naj-lep-sz-y
	zł-y ‘bad’	gor-sz-y	naj-gor-sz-y
	duż-y ‘big’	więk-sz-y	naj-więk-sz-y

[4] Just like in English, many Polish adjectives may form analytic comparatives and superlatives only; cf. *groteskowy* ‘grotesque’ : *bardziej groteskowy* ‘more grotesque’ : *najbardziej groteskowy* ‘most grotesque’. Besides, as far as the synthetic method is concerned, there are a number of gaps and other irregularities (cf. e.g. *bliski* ‘near’ > *bliższy* vs. *śliski* ‘slippery’ > **śliższy* / *bardziej śliski*). By-forms are also possible (e.g. *tłusty* ‘fat’ > *tłuściejszy* / *tłustszy* / *bardziej tłusty*).

(b)	mał-y ‘small’	mni-ej-sz-y	naj-mni-ej-sz-y	
	lek-k-i ‘light’	lż-ej-sz-y	naj-lż-ej-sz-y	
(c)	słod-k-i ‘sweet’	słod-sz-y	naj-słod-sz-y	
	cięż-k-i ‘heavy’	cięż-sz-y	naj-cięż-sz-y	
	dal-ek-i ‘far’	dal-sz-y	naj-dal-sz-y	
	cien-k-i ‘thin’	cień-sz-y	naj-cień-sz-y	([n] ~ [ń])
	blis-k-i ‘near’	bliż-sz-y	naj-bliż-sz-y	([s] ~ [š])
	wys-ok-i ‘high’	wyż-sz-y	naj-wyż-sz-y	([s] ~ [š])
(d)	mocn-y ‘strong’	mocni-ej-sz-y	naj-mocni-ej-sz-y	([n] ~ [ń])
	ważn-y ‘important’	ważni-ej-sz-y	naj-ważni-ej-sz-y	([n] ~ [ń])
	tłusty ‘fat’	tłuści-ej-sz-y	naj-tłuści-ej-sz-y	([t] ~ [ć]])
	łatw-y ‘easy’	łatwi-ej-sz-y	naj-łatwi-ej-sz-y	([f] ~ [f’])
(e)	dług-i ‘long’	dłuż-sz-y	naj-dłuż-sz-y	([g] ~ [ž])
	biał-y ‘white’	biel-sz-y	naj-biel-sz-y	([w] ~ [l], [a] ~ [e])
	słab-y ‘weak’	słab-sz-y	naj-słab-sz-y	([b] ~ [p])
	now-y ‘new’	now-sz-y	naj-now-sz-y	([v] ~ [f])
(f)	star-y ‘old’	star-sz-y	naj-star-sz-y	
	tęp-y ‘dull’	tęp-sz-y	naj-tęp-sz-y	
	żółt-y ‘yellow’	żółt-sz-y	naj-żółt-sz-y	

The data given above may be looked upon as a scale, or hierarchy, in terms of the degree of formal identity and regularity of the stem pairs. The scale ranges from those cases where the stems of the positive and comparative degrees are totally dissimilar and thus may count as canonical examples of total suppletion (2a) up to the bottom pairs in (2f) where the two stems are both phonetically and phonologically identical (with no alternations before the suffix). But there are some intermediate points on this scale. Thus, the examples listed in (2b) illustrate partial suppletion (at least from the synchronic viewpoint), while those in (2c) all show the effect of a minor rule which truncates the stem-final sequences *-k-*, *-ek-*, *-ok-* in the comparative.[5] Some of these forms appear without any stem-final alternations (but when the stem ends in a voiced obstruent, it is uniformly devoiced in the positive and comparative degrees). Other examples in this group show the effect of palatalization or assimilation – note the occasional alternations of the consonant preceding the comparative suffix. The forms in (2d) show various regular palatalizations before the front vowel of the extended suffix *-ej-sz-*. The

[5] The same kind of truncation is evidenced by the pair *lek-k-i* ‘light’ : *lż-ej-sz-y* in (2b).

stem pairs listed in (2e) are almost identical, except for palatalization or the devoicing of their final consonant. Besides, morphologically speaking, they involve the default variant of the comparative suffix. Total identity of form and morphophonological regularity is achieved by the examples in (2f): nothing happens to the stem of the positive degree when it is combined with the basic variant of the comparative suffix.

To sum up, there is, potentially, a spectrum of formal relations that may hold between two stem variants: "almost any detailed account of a language will readily yield a sizable number of alternations which, while not strictly suppletive, cannot be accommodated by means of rules of any generality" (GUSSMANN 2007: 17). A similar idea is expressed in CORBETT (2007b: 25). Among several types of "deviations from canonical inflection", the author mentions suppletion: "[…] we may find various types of alternations, predictable to a greater or lesser extent. The least canonical situation is that in which the lexical material is completely different, which is what we find in suppletion". Interestingly, the case is illustrated with a Polish example: the suppletive stems of the verb *być* 'be' (*jest* vs. *s-ą*).[6]

4. SUPPLETION AND FREQUENCY

Inflectional suppletion can be characterized as total irregularity (modification), within the paradigm. There is a considerable literature on the correlation between (paradigmatic) irregularity, including its extreme manifestation in the form of absolute suppletion, and frequency; see, for instance, BYBEE (1985) and CORBETT *et al.* (2001). For example, a distinction may be drawn between the *extent* of irregularity within a paradigm and the *degree* of irregularity (CORBETT *et al.* (2001: 202); cf. also section 3 above). In what follows, I give a general assessment of suppletive lexemes in Polish, from the point of view of their frequency.

The basic source of numerical data for the short investigation to be presented below is *Słownik frekwencyjny polszczyzny współczesnej* (KURCZ *et al.* 1990 = Frequency Dictionary), advertised in the English *Introduction* as "the first general frequency dictionary of contemporary Polish". The corpus on which the Dictionary is based consisted of 500,000 running words, and it

[6] Elsewhere, CORBETT (2007a) gives fourteen criteria that may be used to determine canonical suppletion.

"was divided into five subcorpora, each consisting of 100[,]000 words: I – scientific texts [for the general public – BS], II – news, III – essays, IV – fiction, V – plays" (KURCZ *et al.* 1990: lvii). At the time of its original compilation (1967-1977), the Dictionary represented a large sample of contemporary written Polish texts.

Table 1 below brings together, again, a few canonical examples of absolute suppletion in Polish, supplemented with the basic numerical data taken from the Frequency Dictionary.

Table 1. Suppletive nouns, adjectives and numerals: Rank on the list of absolute frequency (F) – KURCZ *et al.* (1990)

Stem-form 1	Rank	Absolute frequency (F_1)	Stem-form 2	Rank	Absolute frequency (F_2)	Total occurrences ($F_1 + F_2$)
jed(e)n- 'one'	34	1,152	pierwsz- 'first'	43	936	2,088
rok- 'year, sg.'	38	1,025	lat- 'year, pl.'	59	755	1,780
człowiek- 'man'	88	500	ludzi- 'men'	78	585	1,085
duż- 'big'	131	374	więk(sz)- 'bigger'	123	394	768
dobr- 'good'	170	296	lep(sz)- 'better'	223	241	537
dużo 'much/many'	532	114	więc(ej) 'more'	165	306	420
zł- 'bad'	754	85	gor(sz)- 'worse'	1326	48	133

Unfortunately, the suppletive stem-forms of the irregular verbs *być* 'be' and *iść* 'go' do not have separate entries in the Frequency Dictionary (KURCZ *et al.* 1990). For this reason, these forms do not appear in Table 1. However, it is noteworthy that the summary absolute frequencies[7] for these two lexemes are very high: 9,621 (rank: 3) for the verb *być* and 363 (rank: 137) for the verb *iść*. Of course, if – by analogy – we were to calculate the combined

[7] By the summary absolute frequency I mean here the total number of the occurrences of the suppletive stems corresponding to the given verb; thus, for the verb *być* 'be', these are all the inflected word-forms, regardless of which of the four suppletive stems they are based on (*jest*-, *s*-, *by*-, or *będ*-; cf. (1) above). In Table 1, this figure is given in the right-most column.

(summary) absolute frequencies for the pairs of suppletive stem-forms in the above table (see the rightmost column), this would also affect the overall rank of the respective lexemes. Thus, for instance, the sum of F_1 for *rok-* (1,025) and F_2 for *lat-* (755) gives the combined frequency value of 1,780, which raises the rank of the lexeme in question to 23. Incidentally, this minor inconsistency in the way the Frequency Dictionary handles cases of verb suppletion, as opposed to suppletion in other categories, is potentially confusing and may affect relevant generalizations.

One obvious conclusion to be drawn from Table 1 is that the suppletive word-forms corresponding to the items on the list are remarkably frequent in Polish, which is reflected by their high absolute frequency in the corpus as well as the correspondingly high position on the rank list. Except for the last pair, *zł-* : *gor*(*sz*)-, virtually all suppletive stems locate themselves within the first five hundred of the most common Polish words. Of course, this conclusion is not new. Consider, for instance, the following cross-linguistic generalization offered in MAŃCZAK (1996: 106): "[…] suppletion is closely related to frequency of use; that is to say, it is a feature of the most frequently used words only. Because words that are used most frequently are more or less the same in all languages, it comes as no surprise that the suppletive forms in one language often have corresponding suppletive forms in another language" [translation mine – BS]. Besides, MAŃCZAK (1996: 108) points out that the correlation between high frequency and suppletion is clearly seen when we look at the formation of ordinal numerals in various languages: there is a tendency for the pair meaning 'one – first' to show total suppletion (cf. P. *jeden* : *pierwsz-y*); the pair meaning 'two – second' often reveals partial suppletion (P. *dw-a* : *drug-i*), while the forms for 'three – third' (and higher numbers) are usually based on the same root/stem (P. *trz-y* > *trz-eci*), i.e. they are regularly derived rather than suppletive. Such tendencies are also discussed and stated as universals in DRESSLER (1985: 105).

A more nuanced assessment of the relationship between suppletion and frequency may be found in HIPPISLEY *et al.* (2004). Specifically, the authors compare the absolute frequencies (determined on the basis of the Uppsala Corpus) of two Russian nouns, one suppletive: *reb'on(o)k* 'child' : *det'-i* 'children' and the other one regularly inflected: *devušk-a* 'girl' : *devušk-i* 'girls'. It is noted that "the suppletive item has a greater frequency: the total number of occurrences in the case of *reb'on(o)k* : *det'-i* is 649 and in the case of *devušk-a* : *devušk-i* is the much lower figure of 185" (HIPPISLEY *et al.* (2004: 393). The total number of occurrences denotes all the word-forms,

throughout the paradigm (inflected for case and number). Next, the authors determine the *relative* frequency for both lexemes, defined as "the proportion of the full set of occurrences of a lexeme represented by plural occurrences" (HIPPISLEY *et al.* 2004: 393). For the suppleting item *reb'on(o)k* : *det'-i* this gives the figure of 75% since "of the full set of 649 occurrences, 488 are plural occurrences" while the remaining 188 word-forms appear in the singular. The value of relative frequency for the non-suppleting item *devušk-a* : *devušk-i* is, characteristically, much lower (around 31%). This investigation ends with the conclusion that "whether dealing with proportions or absolute numbers, there is good evidence that suppletion is related to high frequency" (HIPPISLEY *et al.* 2004: 393). But the example under analysis also seems to imply that, for a suppletive noun like *reb'on(o)k* : *det'-i*, it is (always?) the case that the total of plural occurrences outnumbers the set of singular word-forms. Although this is true for the Russian example, it is not corroborated by the Polish data. It is not possible to replicate the frequency analysis offered in HIPPISLEY *et al.* (2004) by taking analogical Polish evidence, since in Polish the lexeme corresponding to *reb'on(o)k* : *det'-i*, i.e. *dzieck-o* 'child' : *dziec-i* 'children', is, at best, to be treated as weakly suppletive. However, as may be seen from the two nouns which appear in Table 1, the Polish evidence is not unequivocal at all: just like in the case of *reb'on(o)k* : *det'-i*, there is an increase of absolute frequency between the two suppletive stems of *człowiek-* 'man' (singular) : *ludzie* 'men' (plural) – from 500 to 585, respectively (hence the relative frequency: 54%). However, the other noun, i.e. *rok-* 'year' : *lat-* 'years' shows a decrease if we go from the singular to the full set of plural forms: 1,025 vs. 755 (relative frequency: 42%). Evidently, the tendency is contradictory and far from obvious. Unfortunately, no further evidence is available in order to make the sample of nouns more representative. One may only speculate that the numerical advantage of the plural word-forms over the singular ones (or vice versa) is due to the lexical specificity (semantics) of a particular item as well as certain grammatical factors (syntactic and morphological patterning). At any rate, it might be interesting to see why the plural forms outnumber the singular ones, assuming that the singular is the unmarked morphosyntactic property with respect to the plural, within the category of Number.[8]

[8] Given the fact that the Uppsala Corpus for Russian is twice as big as the corpus used for the Polish Frequency Dictionary (one million vs. half a million words), one might further compare absolute frequencies across these two languages, proportionately adjusting the figures to reflect the difference in corpus size. Alternatively, one can simply calculate, for Polish, relative frequen-

5. SUPPLETIVE BASES IN DERIVATION AND THE PROBLEM OF LEXICAL LISTING

It is a well known and intuitively obvious feature of Polish inflection that, since nouns decline for number and case, two suppletive alternants identified for the singular and the plural in the nominative will recur throughout the paradigm, i.e. they will show up in different case slots. Thus, for instance, the aforementioned lexeme *człowiek* 'man, nom.' has a truly suppletive by-form in the plural: *ludzi-e* 'men, nom.'.[9] The stem-form *człowiek-* is used throughout the paradigm of declension in the singular (*człowiek-a* 'gen.', *człowiekow-i* 'dat.', etc.) as opposed to the plural set which is invariably based on the other stem-form (*ludz-i* 'gen.', *ludzi-om* 'dat.', etc).

However, it may perhaps come as a surprise that it is a (not so well-known) feature of Polish word-formation that some of the suppletive alternants give rise to separate and formally independent derivational paradigms (= families, nests).[10] For example:

cies, to see the proportion of word-forms in the singular vs. the plural. Thus, for instance, according to the Frequency Dictionary, the total number of occurrences of the singular forms for the noun *dziewczyn-a* "girl' is 95, as opposed to the set of plural word-forms (*dziewczyn-y* 'girls', etc.), where the figure is 10. Multiplied by two, this gives us the figures 190 and 20, respectively, which can be directly juxtaposed with the Russian data for the corresponding pair *devušk-a* : *devušk-i*, as given in HIPPISLEY *et al.* (2004: 393): 128 and 57, respectively. It may be seen, for instance, that there is a much greater difference between the total set of singular and plural occurrences, compared to the Russian example. Accordingly, the relative frequency for the Polish case is only around 10%, as opposed to about 31% in Russian. It might be interesting to see what causes such discrepancies. Incidentally, the Polish Frequency Dictionary does not record any occurrences of the following forms in the plural, for the word in question: dat., instr., loc. (not to mention the vocative sg. and pl.).

[9] While the opposite combinations, i.e. *człowiek-* and [+plural] or *ludzi-* and [+singular], cf. **człowieki* 'men, nom.', **lódź* 'man, nom.', are ruled out by the norms of standard language, they are sometimes heard in colloquial Polish, in dialects or when used for humourous effect.

[10] Cf. English: even though inflection is poorly developed in this language, there are also a few scattered derivatives based on suppletive alternants, other than the citation forms of the relevant lexemes. For example: *good* : *better* > *betterment* / *to better*, *bad* : *worse* > *worsen*. In Polish this phenomenon is more widespread.

(3)

Function	*Stem-form:* człowiek-	*Stem-form:* ludzi-[11]
RELATIONAL ADJ	człowiecz-y 'human' (bookish)	ludz-k-i 'human'
ABSTRACT N	człowiecz-eń-stw-o 'humanity'	ludz-k-ość '(hu)mankind' lud-n-ość 'population'
DIMINUTIVE	człowiecz-ek 'little chap'	ludz-ik / lud-ek (sg.!) 'manikin'
EXPRESSIVE	człowiecz-yn-a 'chap' człowiecz-ysk-o 'chap, fellow'	ludz-isk-a (pl.) / *ludz-isk-o (sg.) 'folks'
DERIVED V	u-człowiecz-y-ć 'humanize'	za-lud-n-i-ć 'populate'

A few questions may be asked in connection with the above derivatives. First, why should a derivative be based on the plural stem, and not on the singular, if the morphosyntactic property [+plural] is a marked feature? Secondly, how about the meaning of the attested pairs based on suppletive by-forms of a single lexeme? Suffice it to say that the alternative derivatives are semantically differentiated, i.e. they are not synonymous.. Notice, additionally, that the diminutive forms *ludz-ik* / *lud-ek* stand out as exceptions, compared to the other forms in the right-hand column, since they are based on the marked plural stem even though they are countable nouns in the singular (but may be plurarised, by regular processes of inflection; cf. *ludz-ik-i* / *lud-k-i*). From this viewpoint, the noun *ludz-isk-a* certainly seems more in place, since it is a *plurale tantum* (cf. **ludz-isk-o* 'sg.'), i.e. a plural stem appears in an exclusively plural word-form (lexeme). Thirdly, is the case evidenced by the derivatives from the suppletive pair *człowiek* : *ludzi-e* an isolated vagary of the morphological system, or does it stand for a broader tendency?

[11] Since the plural form *ludzi-e* and the noun *lud* 'people, folk' are etymological cognates, it is hard to draw a line between the derivatives from either item. In fact, further examples of derived words could be given, based unquestionably on *lud* (e.g. the adj. *lud-ow-y* 'popular, folk'). But there are also instances with double motivation; e.g. *lud-ek* can denote a small (group of) people or a manikin, a short man.

In answer to the last question, one may say that, evidently, the case of parallel derivations from *człowiek-* : *ludzi-* is not an exception. There are other examples to show how Polish word-formation makes use of alternative input forms that are suppletive. Given the fact that, by definition, suppletion is a marginal phenomenon, the number of such examples is not particularly impressive, though. A few are given below:

(4)	*Stem 1*	*Stem 2*
(a)	DOBR-Y ‘good’	LEP-SZ-Y ‘better’
	dobr-o ‘good, N.’[12]	po-lep-sz-y-ć (się) ‘improve, better’
	u-dobr-uch-a-ć ‘mollify, placate’	u-lep-sz-y-ć ‘improve, modify, upgrade’
	wy-dobrz-e-ć ‘recover, get better’	
(b)	ZŁ-Y ‘bad, evil, angry’[13]	GOR-SZ-Y ‘worse’
	zł-o ‘evil, badness’	gor-sz-y-ć (się) ‘scandalize, shock’
	zł-ość ‘anger, annoyance’	z-gor-sz-eni-e ‘depravity, moral corruption’
	roze-źl-i-ć (się) ‘make/get angry’	?gorszość ‘being worse/inferior’[14]
(c)	JEDEN ‘one’	PIERW-SZ-Y ‘first’
	jedn-ocz-y-ć ‘unite, unify’	pierw-sz-eń-stw-o ‘priority, precedence’
	jedn-a-ć ‘reconcile’	pierw-sz-yzn-a ‘something new’
	jedyn-k-a ‘(number) one’	pierw-sz-ak ‘first former’
	jedyn-ak ‘only child’	

Apart from serving as base-forms in various affixation processes, the suppletive stems may also appear in compounding: for instance, *jedn-o-ok-i* ‘one-eyed’, *jedn-o-rzęd-ow-y* ‘single-row’ vs. *pierw-sz-o-rzęd-n-y* ‘first-rate’, *pierw-sz-o-rocz-n-y* ‘first-year’ (for further examples with adjectival bases, see e.g. VOGELGESANG 2001). All in all, it turns out that the majority

[12] The noun *dobro* as well as the noun *zło* (cf. below) are formed from their respective adjectival bases by a process called ‘paradigmatic derivation’ in Polish grammar, which is a special type of conversion.

[13] The adjective *zły* is polysemous. Interestingly, the suppletive comparative is available for some of its senses only (cf. *Ten przykład jest gorszy niż tamten* ‘This example is worse than that one’. For some other meanings of the adjective, only an analytic form of the comparative is available: e.g. *Usłyszawszy całą prawdę, była jeszcze bardziej zła* (**gorsza*) ‘Having heard the whole truth, she was even more angry’.

[14] The neologistic noun ?*gorszość*, not attested in standard dictionaries, is heard in colloquial speech.

of the lexemes which appear on the short list of words exhibiting total suppletion (cf. (1) above), except for the irregular verbs like *być* 'be' and *iść* 'go', are found in "parallel" derivations based on alternative suppletive stems.

The existence of derivatives like the ones in (4) seems to be indirect evidence for the independent listing of the suppletive alternants in the lexicon. This explains why both stems found in inflection are freely available as bases for derivation. The view that suppletive forms should receive autonomous lexical representations is hardly challenged in the literature. For instance, BYBEE (1985: 113) speaks of "the necessity of lexical representation for irregular forms", including, of course, cases of suppletion which means total irregularity. On various accounts, the status of regularly inflected word-forms is far less obvious, from the point of view of lexical listing. One simple solution is to assume that all products of regular inflection (and, perhaps, word-formation as well) are generated by rule so that they do not have to be listed in the mental lexicon. However, according to BYBEE (1985: 114), "*some* but not necessarily *all* regular inflected forms may have lexical representation". This decision is based on several arguments, including the factor of high frequency: items that are frequently used are probable candidates for rote storage rather than production by combination (by rule), i.e. they tend to be retrieved from the lexicon as wholes. This lends further support to the claim that suppletive stems can function as inputs in word-formation since suppletive lexemes, cross-linguistically, are characterized by a relatively high frequency (cf. HIPPISLEY *et al.* 2004: 392) and section 4 above). The significance of the frequency factor is also stressed in PLAG (2003: 49) who concludes, on the basis of psycholinguistic evidence, that "more frequent words are more easily activated by speakers", so that lexical storage and access of morphologically complex words (including our instances of suppletion) can follow the whole-word route. A similar view is expressed in HAY (2007: 42): "Affixed words seem to be 'affixed' to varying degrees. Those which have been previously encountered are stored in the lexicon – including words with inflectional affixes. Both retrieval and composition play a role (to varying degrees) in lexical access." This is the essence of the 'dual-route model', attributed by Hay to several studies by Baayen and Schreuder (e.g. BAAYEN and SCHREUDER 1999).

To sum up, Polish suppletion, as well as suppletion in general, is an interesting instance of the interplay between morphology, phonology, semantics and the lexicon. Accordingly, it provokes many questions in linguistic synchrony, diachrony, and speech processing.

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NOWE SPOJRZENIE NA SUPLETYWIZM W JĘZYKU POLSKIM

Streszczenie

Opierając się na zagranicznej literaturze anglojęzycznej, Autor artykułu podejmuje próbę skonfrontowania najnowszych wyników badań dotyczących supletywizmu z danymi języka polskiego, a więc parami fleksyjnymi typu *człowiek* : *ludzie*, *jest* : *są*. Opracowania na temat supletywizmu w polskiej literaturze językoznawczej są dość ubogie i z reguły nie wychodzą w znaczą-

cy sposób poza odnotowanie przykładowych par tematów supletywnych. Z drugiej strony istnieje obecnie różnorodne i teoretycznie podbudowane piśmiennictwo dotyczące skali i roli tego zjawiska w innych językach. Na szczególną uwagę zasługują prace typologiczne zainicjowane przez badaczy skupionych w Surrey Morphology Group w Wielkiej Brytanii; efektem tych prac jest m.in. tzw. *Surrey Suppletion Database*. Nawiązując do tego rodzaju badań, autor artykułu przedstawia zakres i stosowane definicje pojęcia supletywizmu (por. np. definicję według Mielczuka: „supletywizm jest to relacja między znakami X i Y polegająca na tym, że różnica semantyczna między X i Y jest maksymalnie regularna, podczas gdy różnica fonologiczna jest maksymalnie nieregularna"). Wskazano na odmienności czy wręcz sprzeczności w interpretacji omawianego pojęcia w dostępnej literaturze. Chodzi m.in. o status tzw. supletywizmu słowotwórczego (leksykalnego), rozróżnienie między wariantami supletywnymi tematów i afiksów czy też różnice między supletywizmem pełnym i częściowym. Osobliwości omawianego zjawiska przedstawiono na szerszym tle nieregularności formalnej we fleksji. Dość szczegółowo zanalizowano charakterystykę frekwencyjną leksemów supletywnych we współczesnej polszczyźnie. Osobnym problemem omawianym w artykule są przypadki derywatów w języku polskim, mających za podstawę pospolite formy supletywne. Występowanie tego rodzaju przypadków rzuca nowe światło na istotny problem teoretyczny, jakim jest charakter reprezentacji leksykalnej wyrazów złożonych. Istnienie derywatów od form supletywnych zdaje się dość jednoznacznie wskazywać na to, że formy te mają status samoistnych jednostek leksykalnych, dzięki czemu mogą podlegać procesom słowotwórczym. Stanowisko to jest podzielane w większości publikacji zajmujących się strukturą wewnętrzną słownika, jakkolwiek występują rozbieżne opinie dotyczące szerszej kwestii ewentualnych różnic między sposobem przechowywania w słowniku regularnych form fleksyjnych i formacji słowotwórczych.

Streścił Bogdan Szymanek

Słowa kluczowe: język polski, supletywizm, fleksja, derywacja, frekwencja, reprezentacja leksykalna.

Key words: Polish, suppletion, inflection, derivation, frequency, lexical representation.