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Derivational paradigms or paradigms of function? Competition between Polish affixal formations, morphological compounds and phrasal lexemes

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Outline:

- 1. Derivational paradigms of form vs. paradigms of functions.
- 2. Feminine occupation terms in Polish (& English). Suffixal nouns, compounds and phrasal lexemes in word-formation (WF) paradigms of functions.
- 3. Paradigmatic relations between words in Polish: morphological condensation („univerbation”) and second order schemas in Construction Morphology.
- 4. Doublets in WF paradigms in Polish. Competition between/ Coexistence of:
 - a/ suffixal noun + phrasal noun;
 - b/ phrasal noun + phrasal noun;
 - c/ morphological compound + phrasal noun.
- 5. Doublets in WF and overabundance in inflection

Paradigms in inflection and derivation

- Inflectional paradigm – a table with cells which are expected to be filled for each member of a given word class.
- A **derivational paradigm** in Štekauer (2014) – „an ordered set of all complex words directly derived from a single basic (motivating) word”, as in (1) (cf. **derivational family** in Hathout and Namer 2019, Radimský 2020)

(1) *mother - motherhood, motherly, motherless, motherlike ...*

- The paradigm in (1) = „**paradigm of form**” in Bauer (2019).
- **Paradigm of functions** (Bauer 2019): several different series which exemplify the same cognitive category
- Szymanek (1988) – cognitively grounded derivational categories (e.g. Agentive, Instrumental, Patientive, Collective, Diminutive, Female, Causative, Privative etc.)
- Onomasiological approach to WF (Štekauer 1998): what are morphological means available for naming a particular (concrete or abstract) entity?

Paradigms of functions in word-formation

- Štekauer (2014): derivational paradigms are restricted to affixation.
- Bauer (2019), Gaeta and Angster (2019) – extend the notion of a derivational paradigm to include compounds. Thus we can talk about „word-formation paradigms (of functions)“.
- A (part of a) WF paradigm of functions for denominal **agent** nouns in English (Fernández-Domínguez, Bagasheva & Lara-Clares 2020):

(2) teach > teacher; novel > novelist; escape > escapee,
milk > milkman; spy_V > spy_N; express > *expresser

NB1: „gappiness“ of the WF paradigm in (2): there is no suffixal agentive noun derived from *express_V* (note that inflectional paradigms have few gaps).

NB2: the WF paradigm in (2) includes examples of compounding (*milkman*) and conversion (*spy_N*)

Word-formation paradigms of function

A part of the derivational paradigm for Eng. feminine forms:

(3) *actor* > *actress*, *usher* > *usherette*, *aviator* > *aviatrix*

- ▶ „Gappiness” in the derivational category of (suffixal) feminine forms in English:

- ▶ rare/obsolete feminine formations in (4) - listed in Merriam-Webster dictionary of English (<https://www.merriam-webster.com/dictionary/>) or Collins English Dictionary (<https://www.collinsdictionary.com/>).

- ▶ In (5) – forms not attested in dictionaries or in COCA (Corpus of Contemporary American English at <https://www.english-corpora.org/coca/>).

(4) a. *manager* > ?*manageress* (COCA 7 hits)

b. *writer* > ?*writeress* (COCA 0 hits)

c. *president* > ?*presidentess* (COCA 0 hits)

d. *author* > ?*authoress* (COCA 26 hits)

(5) *dentist* > ?/**dentistess*, **dentistette*, **dentistrix*

(COCA- 0 hits for all those feminine nouns)

Word-formation paradigms: English feminine occupation nouns

- ▶ Sociolinguistic factor (Romaine 2001; Doleschal 2015; Bauer, Lieber and Plag 2013: 243): English suffixal feminine forms tend to be perceived as trivialising, demeaning or undermining the professional status of women.
- ▶ Gappiness in feminine nouns disappears (at least partly) once we include compounds (containing the gender specific word *woman*, *lady*) in the WF category of feminine forms.
 - (6) a. *writer* > *woman writer* (603 hits in COCA)
 - b. *president* > *lady president* (4 hits in COCA)
- ▶ The forms in (6) are not perceived as „trivializing”. But see Hellinger (2001) on „political correctness” – gender-neutral forms are preferable; female marking in English should be avoided where no parallel male forms are used.

WF paradigms: Polish feminine occupation nouns

- Feminine nouns in Polish formed by means of suffixation (7) and conversion (8):

- (7) a. *dentysta* > *dentystka* 'female dentist' (suff. *-ka*)
 b. *mistrz* > *mistrzyni* 'female champion' (suff. *-ini/-yni*)
 c. *krawiec* > *krawcowa* 'female tailor' (suff. *-owa*)

- (8) *księgowy* > *księgowa* 'female accountant'

- Gaps in the derivational paradigm : the nouns in (9) regarded as „trivialising” and avoided (or rejected) by speakers of Polish (cf. Koniuszaniec and Błaszowska 2003, Łaziński 2006)

- (9) a. *prezydent* > ?/**prezydentka* 'female president' (43 hits in NKJP),
 b. *kanclerz* > ?/**kanclerka* 'female chancellor' (5 hits in NKJP),
 c. *rektor* > ?/**rektorka* 'female vice-chancellor' (11 hits in NKJP)

NKJP – National Corpus of Polish (nkjp.pl), 1800 M segments

Word-formation paradigms: Polish feminine occupation nouns cont.

- Further gaps: the forms in (10) are rejected or avoided as difficult to pronounce: **heavy consonantal cluster** /ktk/

(10) a. *architekt* > ?/**architektka* 'female architect'

(74 hits in NKJP),

b. *adiunkt* > ?/**adiunktka* 'female assistant professor'

(2 hits in NKJP)

- Some feminine forms are rejected because they are **homonymous** to names of objects or abstract entities.

(11) a. *dziekan* 'dean' > *dziekanka*₁ 'a semester off'

(?/* *dziekanka*₂ 'female dean')

b. *marynarz* 'sailor' > *marynarka*₁ 'jacket';

> *marynarka*₂ 'navy'

(cf. unattested **marynarka*₃ 'female sailor')

Phrasal lexemes in WF paradigms

- NN appositive units are used to „fill” the gaps.
- They are often treated as syntactic phrases (Kallas 1980): each of the constituent nouns in (12) is inflected.
- Such multiword units (MWEs) are treated as „phrasal lexemes” (here – as „phrasal nouns”) in Construction Morphology (Booij 2010, Masini 2009).

(12) a. *kobieta* (woman.NOM.SG) *marynarz* (sailor. NOM.SG)

b. *kobietą* (woman.INS.SG) *marynarzem* (woman.INS.SG)

(13) a. *pani* (lady.NOM.SG) *adiunkt* (assistant_professor.NOM.SG)

b. *pani* (lady.NOM.SG) *dziekan* (dean.NOM.SG)

„Phrasal lexemes” In Construction Morphology (CxM):

- show phrase-like syntactic complexity;
- resemble morphologically complex words (such as affixal derivatives and compounds) in exhibiting the naming function.

Phrasal lexemes and morphological condensation in Polish

- (14a) is a phrasal lexeme consisting of the left-hand head noun and a modifying denominal adjective.
- (14b) is a suffixal noun derived from a denominal adjective by means of „morphological condensation” (Booij 2010). This process is called „univerbation” in Slavonic studies (Martincová 2015, Szymanek 2010)

(14) a. *szkoł-a* (school+NOM.SG) *podstaw-ow-a*
 (base+ADJZ +NOM.SG) ‘primary school’

b. *podstaw-ów-k-a* (base+ADJZ+NMLZ+NOM.SG)
 ‘(colloq.) primary school’

(15) a. *statek* (ship.NOM.SG) *kabl-ow-y*
 (cable+ADJZ+NOM.SG) ‘cable-laying ship’

b. *kabl-owi-ec* (cable+ADJZ+NMLZ.NOM.SG)
 ‘cable-laying ship;

More examples of morphological condensation in Polish

- (16) a. *samolot* (plane.NOM.SG) *odrzut-ow-y* (recoil_N+ADJZ+NOM.SG) 'jet plane'
 b. *odrzut-owi-ec* (recoil_N+ADJZ+NMLZ.NOM.SG) 'jet plane'
- (17) a. *łódź* (boat.NOM.SG) *żagl-ow-a* (sail_N+ADJZ+NOM.SG) 'sailboat'
 b. *żagl-ów-k-a* (sail_N+ADJZ+NMLZ+NOM.SG) 'sailboat'
- (18) a. *wódk-a* (vodka+NOM.SG) *cytryn-ow-a* (lemon+ADJZ+NOM.SG) 'lemon-flavoured vodka'
 b. *cytryn-ów-k-a* (lemon+ADJZ+NMLZ+NOM.SG) 'lemon-flavoured vodka'

Paradigmatic relations between lexemes

- ▶ „A paradigmatic relationship can be defined by saying that items which are in paradigmatic relationship can substitute for each other in the stream of speech” (Bauer 2019: 153)
- ▶ Paradigmatic relations between phrasal nouns and suffixal nouns: they can replace one another in an appropriate context.
- ▶ Schemas in Construction Morphology (CxM) – generalize over existing complex words. WF schemas „are constructed by language users on the basis of paradigmatic relations between words” (Booij 2007: 36).

Second order schemas

- ▶ A construction schema for Polish N+A phrasal nouns (e.g. *szkoła podstawowa* ,primary school') - where N is the head noun (*szkoła* ,school') and A is an adjective (often a denominal one, e.g. *podstawowy* ,primary, basic' from *podstawa* ,base, basis')

(19) $\langle [N^0_i A^0_j]_k \leftrightarrow [\text{NAME for SEM}_i \text{ with some relation R to SEM}_j]_{\text{SEM}_k} \rangle$

- ▶ Second order schemas in CxM – state a relationship between a complex word and another linguistic expression (Booij and Masini 2015).
- ▶ The 2nd order schema in (20) models a paradigmatic relation (\approx) between a morphological schema (-ka suffixation) and the phrasal schema in (19).

(20) $\langle [N^0_i A^0_j]_k \leftrightarrow [\text{NAME for SEM}_i \text{ with relation R to SEM}_j]_{\text{SEM}_k} \rangle \approx \langle [A_j -ka]_{Nz} \leftrightarrow [\text{SEM}_k [+familiar]]_z \rangle$

Word-formation paradigms: doublets

- ▶ Stump (1991) on the contrast between inflection and derivation: in derivation we often come across **doublets**, e.g. *conformance/conformity, conformer/conformist*, while in inflectional paradigms each cell is typically filled by one form.

Examples of doublets in WF paradigms mentioned earlier:

- ▶ More than one NN appositive units available as feminine occupation terms in Polish (21), or in English (22):

(21) a. *kobieta architekt* (woman architect)

b. *pani architekt* (lady architect)

(22) Eng.: *president* > *woman president, lady president*,

or: a suffixal noun coexists with a NN unit:

(23) a. *kierowniczka* (manager+SUFF) 'female manager'

b. *pani kierownik* (lady manager)

Overabundance in inflection

- ▶ Overabundance - „the situation in which two (or more) inflectional forms are available to realize the same cell in an inflectional paradigm” (Thornton 2019: 223)
- ▶ English plural forms or past tense forms:

(24) a. *syllabus* (sg) – *syllabi* or *syllabuses* (pl.)

b. *schema* (sg) – *schemata* or *schemas* (pl.)

c. *brother* (sg) – *brethren* or *brothers* (pl.)

(25) a. *spell* – *spelt* or *spelled* (past tense forms)

b. *dive* – *dove* or *dived* (past tense forms)

Could the cooccurrence of suffixal nouns and N+N units, or the coexistence of distinct appositive MWEs, be treated as a case similar to overabundance?

In principle yes – *kierowniczka* and *pani kierownik* ‘female managers’, or *kobieta prezydent* and *pani prezydent* ‘female president’ are (roughly) synonymous in Polish.

Doublets and overabundance

The synonymy of doublets is not complete.

- ▶ The suffixal female occupation nouns in Polish sound more colloquial than NN appositive units (cf. *rektorka* and *kobieta rektor* 'female vice-chancellor').
- ▶ The suffixal noun *kierowniczka* 'female manager' usually refers to a lower managerial position than *kierownik* 'manager' or *pani kierownik* (lit. lady/Mrs manager) (see Doleschal 2015 on gender asymmetry).
- ▶ The NN unit *kobieta architekt* 'woman architect' is stylistically neutral while *pani architekt* 'lady architect' is a polite form. (Łaziński 2006 – *pani* 'lady, Mrs' treated as a honorific pronoun.)

Doublets and overabundance

But: two forms which fill the same cell in the inflectional paradigm may also differ stylistically, geographically or in their frequency:

(26) *schemata* – found mainly in academic writing

schemas – used in more general discourse

(27) *syllabi* (409 tokens in COCA) – *syllabuses* (37-COCA)

(28) *radii* (321 in COCA) – *radiuses* (10 tokens in COCA)

(29) *dived* – BrE, *dove* - AmE

Meaning differences:

(30) *rang* – past tense of *ring*₁ ‘make a phone call’

ringed – past tense of *ring*₂ ‘put a ring on sth’

(31) *brethren* – used as a form of address to members of an organization or religious group

(<https://dictionary.cambridge.org/>)

brothers – plural of *brother* (in other senses)

Doublets in Polish: morphological compounds and phrasal nouns

- Pairs can be found of Polish morphological compounds coexisting with phrasal nouns (MWEs) built of the same stems (cf. Masini 2019 on Italian).
- In morphological compounds (e.g. 32a, 33a) stems are linked by the linking vowel (LV) and only the (right-most) head constituent takes the inflectional ending.
- Blocking does not operate in (32-33) due to the lack of synonymy between morphological compounds and MWEs.
- A+N compounds proper in (32a, 33a) are attributive exocentric compounds whereas N+A multi-word MWEs (32b, 33b) require an endocentric interpretation.

(32) a. *równoległ-o-bok* (parallel+LV+side.NOM.SG)
'parallelogram'

b. *bok* (side.NOM.SG) *równoległ-y* (parallel+NOM.SG)
'parallel side'

Coexistence of Polish morphological compounds and phrasal nouns – cont.

(33) a. *doln-o-płat* (low+LV+wing.NOM.SG) 'low-wing plane'

b. *płat doln-y* (wing.NOM.SG low+NOM.SG) 'low wing'

- ▶ the coexistence of MWEs side by side with synonymous compounds may be indicative of a change in progress.

(34) a. *?spódnic-a* (skirt+NOM.SG) *spodni-e* (trouser+NOM.PL) 'culottes' (dated, attested in 1968 in NFJP(nfjp.pl), no tokens in NKJP)

b. *spódnic-o-spodni-e* (skirt+LV+trouser+NOM.PL) 'culottes' (1 hit in NKJP+9 hits for hyphenated spelling, 12,000 hits in Google search)

(35) a. *nart-y-sank-i* (in Damborský 1966, no hits in NKJP)

(ski+NOM.PL sledge+NOM.PL) 'ski sled'

b. *nart-o-sank-i* (ski+LV+sledge+NOM.PL) 'ski sled'

(7 hits in NKJP, 140,000 hits in Google search)

Coexistence of Polish morphological compounds and phrasal nouns – cont.

Morphological compounds (36a, 37a) are not institutionalized and are replaced by appropriate phrasal nouns (36b, 37b)

(36) a. *prezydent-o-bójc-a* (president+LV+killer+NOM.SG)
 'presidential assassin' (no tokens in NKJP or NFJP,
 9 hits in Google search)

(cf. *królobójca* 'kingslayer' 94 hits in NKJP,
ojcobójca 'patricide' 155 hits in NKJP)

b. *zabójc-a* (killer+NOM.SG) *prezydent-a* (president+GEN.SG)
 'presidential assassin'

(37) a. *krwi-o-dawani-e* (blood+LV+giving+NOM.SG)
 'blood donation' (no ex. in NKJP, 4 hits in Google search)

b. *oddawani-e* (donating+NOM.SG) *krw-i* (blood+GEN.SG)
 'blood donation'

Such compounds as (36a, 37a) can occur as attention-seeking devices (Lipka 1987, Konieczna 2012) in journalese or in texts posted on blogs.

Conclusions

- ▶ In this talk I have emphasized the importance of studying paradigms of functions, especially (parts of) paradigms corresponding to a given cognitive category.
- ▶ I have argued (following, among others, Bauer 2019, Gaeta & Angster 2019) that WF paradigms should include morphological compounds (apart from affixal derivatives).
- ▶ Additionally I have argued – on the basis of Polish data - that WF paradigms should include phrasal lexemes (i.e. compound-like multiword expressions).
- ▶ It has been shown that phrasal lexemes and/or morphological compounds can fill the gaps in the paradigms of functions when a suffixal derivative is rejected or avoided (e.g. for sociolinguistic reasons – as in the case of feminine occupation terms).
- ▶ The focus of the discussion has been laid on WF doublets (i.e. affixal derivatives, morphological compounds and/or phrasal nouns which contain the same root or stem).

Conclusions cont.

- Several types of situations have been identified when such doublets occur, and thus „blocking” is suspended.
 - a/ there is a regular difference in their meaning (e.g. exocentric interpretation of AN compounds vs. endocentric reading of NA phrasal nouns in Polish);
 - b/ there may be a stylistic difference (e.g. between NA phrasal nouns and corresponding deadjectival suffixal nouns in Polish);
 - c/ morphological NN compounds and appositive NN units (phrasal nouns) are fully synonymous but differ in their frequency, so their coexistence shows a change in progress.
 - d/morphological compounds may be used (instead of expected phrasal nouns) as „attention-seeking devices”.

Conclusions cont.

- ▶ Although doublets are regarded as being characteristic of derivation/WF (Stump 1991), similarities have been pointed out between the occurrence of derivational/WF doublets and overabundance in inflection (Thornton 2019).
- ▶ The question remains if such doublets fill the same „cell” in the WF paradigm.
- ▶ This also necessitates a reconsideration of what kind of (and what degree of) differentiation can be exhibited between derivatives, compounds and compound-like expressions which can be treated as filling the same cell in the paradigm.

Conclusion cont.

- ▶ What if the competition between phrasal nouns and suffixal nouns (e.g. in Polish feminine occupation terms) cannot be captured in word-formation paradigms at the level of individual items (and the doubly-filled cells)?
- ▶ Then it should be expressed by means of second-order schemas, e.g. those which can model paradigmatic relations between NN feminine occupation terms and suffixal feminine forms.

Selected references

- Bagasheva, Alexandra. 2020. Paradigmaticity in compounding. In Jesús Fernández-Domínguez, Alexandra Bagasheva & Cristina Lara-Clares (eds.), *Paradigmatic relations in word-formation*, 21–48. Leiden: Brill.
- Bauer, Lauer. 2019. Notions of paradigm and their value in word-formation. *Word Structure* 12(2), 153–175.
- Booij, Geert. 2010. *Construction Morphology*. Oxford: Oxford University Press.
- Booij, Geert, and Francesca Masini. 2015. The role of second order schemas in the construction of complex words. In Laurie Bauer, Livia Kórtvélyessy, and Pavol Štekauer (eds.), *Semantics of complex words*, 47–66. Cham: Springer.
- Doleschal, Ursula. 2015. Gender marking. In Peter O. Müller, Ingeborg Ohnheiser, Susan Olsen, and Franz Rainer (eds.), *Word-formation: An international handbook of the languages of Europe*, vol.4, 1159–1171. Berlin: Mouton de Gruyter.
- Gaeta, Livio and Marco Angster. 2019. Stripping paradigmatic relations out of the syntax. *Morphology* 29: 249–270.
- Hathout, Nabil and Fiammetta Namer. 2019. Paradigms in word formation: What are we up to? *Morphology* 29: 153–165.
- Kallas, Krystyna. 1980. *Grupy apozycyjne we współczesnym języku polskim*. Toruń: Wydawnictwo UMK.

Selected references cont.

Konieczna, Ewa. 2012. Analogical modelling and paradigmatic word formation as attention-seeking devices. In Angela Ralli, Geert Booij, Sergio Scalise, and Athanasios Karasimos (eds.), *Morphology and the architecture of grammar. Online proceedings of the Eight Mediterranean Morphology Meeting MMM8 (Cagliari) 14–17 September 2011*, 168–191. Patras: University of Patras.

Koniuszaniec, G. and H. Błaszczowska. 2003. Language and gender in Polish. In M. Hellinger and H. Bussmann (eds.), *Gender across languages: The linguistic representation of women and men*, vol. 3, 259–285. Amsterdam: Benjamins.

Lipka, Leonhard. 1987. Word-formation and text in English and German. In Brigitte Asbach-Schnitker and Johannes Roggenhofer (eds.), *Neuere Forschungen zur Wortbildung und Historiographie der Linguistik*, 59–67. Tübingen: Gunter Narr.

Łaziński, Marek. 2006. *O panach i paniach. Polskie rzeczowniki tytularne i ich asymetria rodzajowo-płciowa*. Warszawa: Wydawnictwo PWN.

Martincová, Olga. 2015. Multi-word expressions and univerbation in Slavic. In Peter O. Müller, Ingeborg Ohnheiser, Susan Olsen, and Franz Rainer (eds.), *Word-formation: An international handbook of the languages of Europe*, vol. 1, 742–757. Berlin: Mouton de Gruyter.

Selected references cont.

Masini, Francesca. 2009. Phrasal lexemes, compounds and phrases: A constructionist perspective. *Word Structure* 2(2): 254–271.

Masini, Francesca. 2019. Competition between morphological words and multiword expressions. In Franz Rainer, Francesco Gardani, Wolfgang U. Dressler and Hans Christian Luschützky (eds.), *Competition in inflection and word-formation*, 281–305. Cham: Springer.

Radimský, Jan. 2020. Paradigmatic approach to compounding. In Fernández-Domínguez, Jesús & Bagasheva, Alexandra & Lara-Clares, Cristina (eds.), *Paradigmatic relations in word-formation*, 164–185. Leiden: Brill.

Rainer, Franz. 2005. Constraints on productivity. In Pavol Štekauer and Rochelle Lieber (eds.), *Handbook of word-formation*, 335–352. Dordrecht: Springer.

Štekauer, Pavol. 1998. *An onomasiological theory of English word-formation*. Amsterdam/Philadelphia: John Benjamins.

Selected references cont.

Štekauer, Pavol. 2014. Derivational paradigms. In Rochelle Lieber and Pavol Štekauer (eds.), *The Oxford handbook of derivational morphology*, 354–369. Oxford: Oxford University Press.

Stump, Gregory. 1991. A paradigm-based theory of morphosemantic mismatches. *Language* 67: 675–725.

Szymanek, Bogdan. 1988. *Categories and categorization in morphology*. Lublin: Katolicki Uniwersytet Lubelski.

Szymanek, Bogdan. 2010. *A panorama of Polish word-formation*. Lublin: Wydawnictwo KUL.

Thornton, Anna. 2019. Overabundance: A Canonical Typology. In Franz Rainer, Francesco Gardani, Wolfgang U. Dressler and Hans Christian Luschützky (eds.), *Competition in inflection and word-formation*, 223–258. Cham: Springer.