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# A position on classificatory adjectives in Polish

#### Abstract

The paper is constructed as a response to Cetnarowska, Pysz and Trugman's (2011a) paper on classificatory adjectives in Polish. Cetnarowska, Pysz and Trugman (CPT) argue in it against Rutkowski and Progovac's (2005) and Rutkowski's (2007) account of classificatory adjectives in Polish and instead propose an alternative analysis, based on Bouchard's (2002) representational model. In the present paper it is claimed that the controversy between those two approaches actually stems from differences in the understanding of the term 'classificatory adjective': Cetnarowska, Pysz and Trugman (2011b) seem to deem as 'classificatory' adjectives "restricting the denotation of the noun they modify," while Rutkowski (2007) seems to consider 'classificatory' only those adjectives that establish at least two contrasting classes of possible referents. Crucially, for Rutkowski and Progovac only post-nominal adjectives are deemed classificatory, while Cetnarowska, Pysz and Trugman postulate a class of 'migrating classificatory adjectives' that can appear both pre- and postnominally. This paper presents some arguments that CPT's view is better suited to Polish phenomena, but also suggests that neither the derivational model proposed by Rutkowski and Progovac nor the representational model is capable of fully accounting for syntacticsemantic phenomena involved in Polish nominal phrases with post-nominal adjectives.

#### **Key Words**

classificatory adjective, classificatory phrase, adjective order in Polish

#### Streszczenie

Artykuł stanowi odpowiedź na tekst Cetnarowskiej, Pysz i Trugman (2011a), w którym autorki odnoszą się krytycznie do opisu polskich przydawek postpozycyjnych, zaproponowanego przez Rutkowskiego i Progovac (2005) i Rutkowskiego (2007) oraz proponują własny opis oparty na modelu Boucharda (2002). W niniejszym artykule twierdzi się, że spór wynika z różnic w sposobie rozumienia terminu "klasyfikujący", stosowanego w odniesieniu do przydawek. W ujęciu Cetnarowskiej, Pysz i Trugman (2011b) "przydawka klasyfikująca zawęża denotację nadrzędnego rzeczownika", natomiast w ujęciu Rutkowskiego (2007) pojęcie to jest węższe i odnosi się do sytuacji, w której wyodrębnia się klasę potencjalnych denotatów w kontraście do innej klasy. Co więcej, Rutkowski i Progovac określają mianem "klasyfikujących" jedynie przydawki postpozycyjne, natomiast Cetnarowska, Pysz i Trugman zaliczają do klasyfikujących także tzw. przydawki klasyfikujące ruchome, mogące poprzedzać rzeczownik. W artykule sugeruje się, iż jakkolwiek podejście Cetnarowskiej, Pysz i Trugman (CPT) w większym stopniu ujmuje fakty empiryczne, w żadnym z proponowanych modeli nie jest możliwy pełny opis właściwości semantyczno-składniowych polskich przydawek postpozycyjnych.

#### Słowa klucze

przydawka klasyfikująca, fraza klasyfikująca, szyk przydawek w polszczyźnie

#### 1. Introduction

As the title suggests, this paper is constructed as a response to Bożena Cetnarowska, Agnieszka Pysz and Helen Trugman's paper entitled *Accounting for some flexibility in a rigid construction: on the position of classificatory adjectives in Polish* (henceforth referred to as CPT 2011a). In that paper, the authors argue against Rutkowski and Progovac's (2005) and Rutkowski's (2007) account of classificatory adjectives in Polish (henceforth referred to as CPM – an abbreviation for 'ClassP model' coined by CPT) and instead propose a different account of the phenomena in question.<sup>2</sup>

The analysis concerns the fact that in Polish some adjectives appear prenominally in an unmarked word order, while others appear post-nominally in an unmarked order. The traditional account of the phenomenon has been that pre-nominal adjectives are qualifying ones, i.e. they are said to refer to some feature of the referent of the noun, while the post-nominal adjectives are classificatory, i.e. they are said to pick out a subset of possible referents of the unmodified noun. In some cases the same string may be used in both senses, as in the frequently-cited textbook case:

(1) a. attaché kulturalny 'cultural attaché' b. kulturalny attaché 'cultured attaché'

Although other examples abound in the literature.<sup>3</sup> When Polish is taught as a foreign language, it is usually pointed out that while a military, commercial or any other kind of attaché can and should be a cultured person, a cultural attaché may happen to be a complete boor, thus the expression:

<sup>&</sup>lt;sup>1</sup> The first draft of this paper was produced as early as 2010, as a reaction to the draft version of the original CPT paper. It has given ground to an informal discussion between the author of the present paper and the authors of CPT. Some of the issues discussed are reflected in the present version and CPT's remarks are quoted as CPT pc. The discussion is also reflected in another CPT paper, i.e. *Distribution of classificatory adjectives and genitives in Polish NPs*, henceforth CPT (2011b).

<sup>&</sup>lt;sup>2</sup> ClassP model is also argued for in Rutkowski 2009.

<sup>&</sup>lt;sup>3</sup> All the works on classificatory adjectives cited here provide an exhaustive overview of theoretical and typological literature, while works on Polish also offer a survey of proposals existing in the Polish linguistic literature. For lack of space these issues are not discussed here.

# (2) *niekulturalny attaché kulturalny* 'an uncultured/boorish cultural attaché'

is not an oxymoron.4

Rutkowski and Progovac's (2005) paper, together with Rutkowski (2007) and Rutkowski (2009), constitute their contribution to the discussion of the DP-hypothesis in determiner-less languages. CPT challenge the analysis proposed within the DP-hypothesis on the grounds of what they consider its conceptual inadequacy and on the grounds of empirical data. CPT then propose a different account of the position of classificatory adjectives in Polish, basing their theoretical framework on the representational theory of Bouchard (2002).

This paper is organized in the following way: CPM is briefly presented in section 2. Section 3 deals with CPT's criticism of CPM: some of these arguments are found valid, others are challenged. Section 4 discusses the representational model and its application to Polish by CPT (4.1) followed by some criticism to it (4.2). Section 5 presents a hypothesis about the underlying reason for the very controversy, a controversy which is partly addressed in CPT (2011b) and also raised in Rutkowski (2013). Section 6 presents conclusions, concerning in particular different interpretations of strings of multiple postnominal adjectives, and briefly mentions some issues not discussed either by CPM or by CPT, yet worthy of further analysis.

# 2. Classificatory adjectives within the DP-hypothesis (CPM)

As has been mentioned above, the CPM analysis of classificatory adjectives is part of a broader claim that even in determiner-less languages there are valid reasons to postulate the DP-structure as the topmost for nominals. As a part

<sup>&</sup>lt;sup>4</sup> Similar examples are given by CPT 2011 after Rutkowski and Progovac 2005 and Rutkowski 2007: *aktor komiczny* 'comic (i.e. comedy) actor' and *komiczny aktor* 'funny actor'; this can give rise to *niekomiczny aktor komiczny* 'unfunny comic actor'. In the same vein one can coin *czarno-biała drukarka kolorowa* (which is a play on a CPT example) 'black-and-white color printer', black-and-white referring to the color of the printer and not to that of the printout, or *czarno-biały telewizor kolorowy* 'black-and-white color TV-set', with black-and-white being the color of the TV set itself, (though, as CPT (pc) point out, such examples may need specific pragmatic contexts not to be judged incorrect). This kind of ambiguity is not restricted to Polish; in Romance languages it is related to adjective position in relation to noun, cf. the French examples *un vieil ami* 'a friend of long standing' vs. *un ami vieux* 'an old (aged) friend (from CPT 2011, their example 23); *une pure bêtise* 'a pure stupidity vs. *de l'eau pure* '(of) pure water' (Izert 2004: 136), or the Spanish textbook examples *coche nuevo* 'new car' vs. *nuevo coche* 'recently acquired car (possibly used)'. In English, for example *a criminal lawyer*, is fully ambiguous.

of this broader claim, it is argued that the noun-pronoun asymmetry in determiner-less languages, e.g.

(3) a. *wszyscy chłopcy* 'all boys' b. *my wszyscy* 'we all'

where the quantifier *wszyscy* 'all' precedes the noun but follows the pronoun, is due to the fact that pronouns are fronted through N<sup>0</sup> to D<sup>0</sup> movement, triggered by the determiner-like semantics of pronouns. The CPM cannot, however, invoke such movement to account for post-nominal adjectives in Polish, since if this kind of movement applied to nouns, all Polish Nominal Phrases would be noun-initial (which obviously is not the case). Neither it can postulate some special determiner-like character of those nouns that precede adjectives. Rather, what the CPM model does, is to postulate a Classificatory Phrase, immediately over the Nominal Phrase (NP).<sup>5</sup>

The NP itself contains the classificatory adjective (an Adjective Phrase in the Specifier Position), and the N-A order is achieved through movement of the noun from N<sup>0</sup> position within the NP to the Class<sup>0</sup> position within the ClassP. It should be noted that all other adjectives (qualifying ones) are base generated above the ClassP. Thus the classificatory adjective is singled out by the fact that it is NP-internal, and hence non-iterative. In other terms, within the CPM model, any adjective can acquire classificatory interpretation provided it is base generated below the nP, and only one adjective can appear in this position.

The CPM further claims that since the intra-NP position of an AP is unique, there is no possibility of having a string of classificatory adjectives attached to a noun. It is argued that potential strings must form a compound, e.g.

(4) gramatyka transformacyjno-generatywna 'generative-transformative grammar'

'lit. grammar transformational-generative'

or that the outermost (rightmost) adjective is not really a classificatory one, but a reduced relative clause. It is said that, in contrast to 'genuine' classifica-

<sup>&</sup>lt;sup>5</sup> As CPT (pc) observe, in Rutkowski (e.g. 2007) the ClassP projection is substituted by a more general one, i.e. an nP projection, which "is not limited to any particular semantic interpretation". However, as Rutkowski (2009: 124) puts it, the post-nominal syntax of classificatory adjectives is dependent on the classification feature being strong in Polish (to account for the N movement occurring in the overt syntax). It should be observed that offering an N-movement to account for post-nominal position of classificatory adjectives is not unique to CPM, cf. Willim (2001), quoted in Rutkowski (2009).

<sup>&</sup>lt;sup>6</sup> That is the way the example appears in Rutkowski and Progovac (2005) and other works by Rutkowski; I tend to use the reverse order within the compound, i.e. *generatywno-transformacyjna* 'generative-transformational'.

tory adjectives, any other postnominal adjective can also be placed pre-nominally, it can be expanded to a full relative, and it requires a phonetic pause separating it from a preceding classificatory adjective (e.g. Rutkowski 2009: 115, note 17).

## 3. On CPT's critique of CPM

To refute the CPM, CPT argue that it is both empirically inadequate (their 3.1.) and conceptually inadequate (their 3.2).

#### 3.1. CPT's empirical arguments

The empirical part of CPT's refutation of the CPM takes as its starting point the claim that there can only be a single post-nominal adjective, and if another is to be added either compounding must be used, as in (4), or the rightmost adjective is actually a reduced relative clause (see 2).

To refute the uniqueness hypothesis, CPT say that there are indeed structures hosting two post-nominal adjectives, e.g. (their 8, original glosses):

- (5) a. drukarka atramentowa kolorowa
  - 'lit. printer ink-jet (adj) color (adj)'
  - 'color ink-jet printer'
  - b. przewozy lotnicze pasażerskie
     'lit. transports (pl) aerial passenger (adj)'
     'passenger air transport'
  - c. msza święta żałobna 'lit. mass holy memorial' 'memorial mass'
  - d. ustawa karna skarbowa 'lit. law penal fiscal' 'fiscal penal code'

However, these sequences appear highly technical: (5a) may appear on a price list; (5b) may appear in a technical report about transport in general or as an item in an airline's annual report; (5c) resembles a Church announcement; while (5d) is actually the official title of the act in question. In ordinary parlance it is more natural to say:

- (6) a. *kolorowa drukarka atramentowa* 'lit. color (adj) printer ink-jet (adj)'
  - b. pasażerskie przewozy lotnicze'lit. passenger (adj) transports (pl) aerial'

c. *lotnicze przewozy pasażerskie* 'lit. aerial transports (pl) passenger (adj)'

This stylistic feature of apparent structures with multiple classificatory adjectives is duly noted by CPT.<sup>7</sup> They also claim that classificatory adjectives that precede a N+Classificatory Adjective structure do not lose their semantic (classificatory) character and do not become qualifying adjectives. However, some classificatory adjectives are better suited to such shifting than others. CPT also propose the following (their 11b):

(7) atramentowa drukarka kolorowa 'lit. ink-jet (adj) printer color (adj)'

which I find a bit awkward,<sup>8</sup> and they do not apply the same procedure to fiscal penal codes or memorial masses. To refute the compounding prediction, cf. (4), they claim that it is not readily available. To illustrate this they adduce the unacceptability of (their 9):

- (8) a. \*drukarka atramentowo-kolorowa
  - b. \*przewozy lotniczo-pasażerskie
  - c. \*msza święto-żałobna

This criticism of the CPM line of argumentation is indeed valid. The formulation that such coordination "must" be used (Rutkowski and Progovac 2005, Rutkowski 2009: 115) is far too strong. This kind of compounding in Polish is not free, but available only for pairs of adjectives that either coordinately describe the phenomenon in question (they are actually said to derive from coordinate phrases), as in (9a–c), or if not coordinate, imply some bilateralism, as in (9d–f):

(9) a. czarno-biały

'black-and-white, lit. black-white' czarno-biała telewizja//telewizja czarno-biała

'black-and-white TV'

b. biało-czerwony

'red-and-white, lit. white-red'

<sup>&</sup>lt;sup>7</sup> Rutkowski (2013) argues that native speakers of Polish tend to reject sequences such as (5). CPT (2011b) comment on their informants tending to accept such sequences and claim Rutkowski's results are due to the register in which his test sequences were made up. In my opinion, a different phenomenon is at play here and I will discuss it further on.

<sup>&</sup>lt;sup>8</sup> In particular in an unmarked neutral context I would easily say *Kupiłam kolorową drukarkę atramentową* 'I bought a color ink-jet printer', but not *Kupiłam atramentową drukarkę kolorową*, unless I wanted to put contrastive stress on its being an ink-jet printer. CPT also mention the contrastive character of some of the structures hosting two classificatory adjectives (their (31)). I will come to this issue later on.

biało-czerwona flaga 'red-and-white flag' biało-czerwony 'red-and-white, lit. white-red' biało-czerwona flaga 'red-and-white flag'

- c. *społeczno-polityczny* 'sociopolitical, lit. social-political'
- d. angielsko-polski'English-Polish'słownik angielsko-polski'English-Polish dictionary'
- e. polsko-litewski
  'lit. Polish-Lithuanian'
  unia polsko-litewska
  'union of Poland and Lithuania'
- f. polsko-niemiecki
  'lit. Polish-German'
  stosunki polsko-niemieckie
  'lit. Polish-German relations, relations between Poland and Germany'

Such compounds can be used both post- and pre-nominally, as the examples in (9) show. The restriction on compounding is rightly pointed out by CPT.

Another important point made by CPT is that there is no one-to-one relation between post-nominal, i.e. classificatory use of an adjective, and its predicative use. While it is generally assumed that relational adjectives are not used predicatively, there are some that do seem to defy this restriction, as illustrated below with the examples from Nowakowska (1998) quoted in CPT as their (15) and (16) respectively:

However, many adjectives that may appear in classificatory constructions (according to CPM) or would most likely be considered classificatory (although on different grounds by CPT) would never appear in either relative clauses or predicative constructions. Such examples include nationality adjectives, among others, as rightly observed by CPT (pc):

'lit. cuisine French'
'French cuisine'
a'. \*?kuchnia, która jest francuska
'cuisine which is French'
b. armia rosyjska
'lit. army Russian'
'Russian army'
b'. \*?armia, która jest rosyjska
'army which is Russian'

(11) a. kuchnia francuska

All in all, CPT's refutation of the CPM claim about obligatory compounding of two post-nominal adjectives and about any second one representing a reduced relative clause is valid. However, while this shows that some arguments given in favor of the CPM model should be revised, it does not invalidate the model as such.

What remains to be addressed is the appearance of sequences with several adjectives following the noun, of the kind presented in (5), and of the sequences with one adjective preceding the noun and one following it, as in (6), which, according to CPT, constitute valid counterexamples to the CPM model. In my opinion, the discussion concerning them is only partly empirical, as it hinges upon the very sense in which CPM and CPT use the term 'classificatory'. Nevertheless, this will be presented under the 'empirical' heading, as it is done by CPT (2011a), while the issue of the difference of interpretation of the term 'classificatory' in the two accounts will be addressed later on.

Thus CPT claim that "some ClassAs [i.e. classificatory adjectives] not only may but rather must obligatory surface in preN position as in [their examples] (13) & (14)", reproduced here as (12) and (13), respectively:

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(12) a. lwia paszcza

'lit. lion (adj) jaw'

'snapdragon'
b. #paszcza lwia

'lit. jaw lion (adj)

(13) a. boża krówka

'lit. God (adj) cow (dim)'

'ladybird'
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b. *krówka boża 'lit. cow (dim) God (adj)'
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This, however, is not a very strong argument, since the two expressions are clearly idiomatic, i.e. lexicalized in the given order. Moreover, idioms made up of a noun and an adjective appear in N+A order as well. One such example is *kura domowa* which in the literal sense means 'domesticated hen,' while in the figurative sense refers to a housewife with no outside interests. Other examples include *opera mydlana* 'soap opera' and my personal favorite, *maslo roślinne* 'lit. butter vegetable,' which was coined as product name for the first kind of soft margarine introduced in Poland that could be used on bread, but supposedly not for cooking. CPT's stronger critique comes from stating that the CPM "*syntactically* [italics theirs] confines ClassA to postN position", and they quote Rutkowski (2007: 327) who, according to them, "explicitly emphasizes that 'this requirement is not conditioned stylistically or contextually". To refute this they give a series of (unnumbered) examples of expressions with *nocny* 'night (adj)', and with *odrzutowy* 'jet (adj.)':

However, in the case of *nocny* there is a general tendency to pre-pose it to the noun as in *nocny sklep* 'night shop', *nocna zmiana* 'night shift', *nocna straż* 'night watch', etc., and I find the post-nominal order marked (as the informants consulted by CPT also seem to). By contrast, *odrzutowy* is better left in the post-nominal position.

<sup>&</sup>lt;sup>9</sup> CPT rightly point out that *paszcza lwia* is acceptable in the sense of 'lion's jaw'; they also give a similar example of *koński ogon* which can mean either idiomatically 'ponytail' or literally 'horsetail' (*koński* 'horse (adj); *ogon* 'tail') and is acceptable in the reversed order *ogon koński* only in the sense 'horsetail'.

<sup>&</sup>lt;sup>10</sup> This example is taken from the abstract of Bożena Cetnarowska and Helen Trugman's presentation at the 2011 GLIP meeting (http://generative-linguistics.pl/glip7/abstr/Cetnarowska. pdf (2013.09.05)). It does not appear in the final version of Cetnarowska and Trugman (2012).

Interestingly, CPT do not try to refute the third CPM argument, i.e. that of the phonetic pause. And rightly so, as their data come from a written and not a spoken corpus of Polish. This is another issue I will come to later on.

#### 3.2. CPT on conceptual inadequacy of CPM

CPT claim that the CPM is conceptually inadequate on two counts. Firstly, they say the claim that classificatory adjectives are non-iterative in Polish would make it an exception cross-linguistically. They argue that Spanish, for example, allows for strings of classifying adjectives, and that the same is also possible in Polish. They say that "the N-adjacent adjective forms a constituent with N, with each subsequent adjective modifying the N-ClassA complex as a whole, further restricting it" (CPT 2011a: 30). They claim, for Spanish, that the adjective sequence is governed by semantic principles and in some cases may be reversed, and they show the same for Polish.<sup>11</sup> The relevant examples (their 17–20) are:

- (16) a. literatura medieval francesa
  - 'lit. literature medieval French'
  - b. literatura francesa medieval
    - 'lit. literature French medieval'
- (17) a. una comedia musical americana
  - 'lit. a comedy musical American'
  - b. \*una comedia americana musical
  - 'lit. a comedy American musical' a. koncesja ogólnopolska telewizyjna
    - 'lit. license all-Poland (adj) television (adj)
  - b. koncesja telewizyjna ogólnopolska
    - 'lit. license television (adj) all-Poland (adj)'
- (18) a. msza święta żałobna
  - 'lit. mass holy memorial'
  - b. \*msza żałobna święta
    - 'lit. mass memorial holy'

Their second challenge is made on the grounds of non-iterativity of Spec being "merely stipulated to account for the non-recurrent ClassAs in Polish", while "iteration of specifiers is not precluded by the general theory [...] and is found in some analyses of Slavic" (CPT 2011a: 30). They also add that "nouns do not obligatorily assign an external theta-role; hence their specifiers cannot be limited to one by the Theta Theory requirements either" (ibid.). Both coun-

<sup>&</sup>lt;sup>11</sup> Their statements about Spanish are based on Bosque and Picallo (1996); the semantic analysis appears to be based on both Bosque and Picallo (1996) and Bouchard (2002).

terarguments proffered are targeted against the uniqueness of the nP projection, but I will discuss only the first one.

The way CPT (2011a) present apparently parallel Polish and Spanish data could suggest that they would like to treat post-nominal adjectives in Polish as they are treated in Romance languages. However, this step would be taken without considering the fact that contrary to Polish, adjectives in Spanish and in Romance are generally post-nominal and apparently appear in the so called "mirror image order" with respect to the order found in English and other Germanic languages (Bosque and Picallo 1996; Bouchard 2002; Cinque 2010 and other works quoted there). Moreover, in Spanish non-classificatory adjectives can follow a sequence of adjectives considered classificatory. Though the Spanish examples of CPT (2011a) are taken from Bosque and Picallo (1996: 349 and 366–367 respectively), they seem to have overlooked or deemed irrelevant the latter's mention of this fact:

- (20) una comedia musical americana divertida
  'lit. a comedy musical American amusing'
  'an amusing American musical comedy'
  (Bosque and Picallo 1996: 349, original glosses)
- (21) una guerra religiosa fratricida devastadora
  'a devastating fratricidal religious war'
  unos análisis periódicos gubernamentales absurdos
  'some absurd political analyses by the government'
  una política agraria española vergonzosa
  'a shameful agrarian Spanish politics'
  (Bosque and Picallo 1996: 369, original glosses)

Moreover, only qualifying adjectives can appear pre-nominally:

(22) a. *una divertida comedia musical americana* b. *la divertida comedia musical americana* (Bosque and Picallo 1996: 351)

Phrases with prenominal adjectives of this kind differ in meaning from those with postnominal adjectives: in the former the noun or the noun accompanied by post-nominal adjectives, if any, has to be understood as specific, even if preceded by an indefinite article, and/or the adjective is interpreted as non-defining (Bosque and Picallo 1999: 351; Demonte 1999: 146; Cinque 2010: 7–8). If, however, the parallelism between Polish and Spanish is taken only in the sense that in both languages in some cases alternative ordering of adjectives are possible (CPT, pc), then it only shows that there are some instances in which two modifiers that most likely would belong to the same class in adjective hierarchies can be used in differing order of subspecification

(Bosque and Picallo 1996: 352), while modifiers belonging to different semantic classes need to appear in the ordering in which the adjacency would mirror the semantic hierarchy. It should be noted, however, that Bosque and Picallo do not mention adjective hierarchies, and their notion of classifying adjectives is different than that of CPT (2011b).

## 4. The representational model

CPT follow their refutation of the CPM with their own proposal of analyzing Polish classificatory adjectives within the representational model (Bouchard 1998, 2002). According to this model, the difference between English and French order of adjectives is related to the issue of Semantic Number. Namely, it is said that English encodes the Semantic Number on nouns, while French encodes the Semantic Number on determiners. This claim is borne out by several contrasts between English and French, including the following:

- in speech French singular and plural noun phrases are distinguished by the form of the determiner, while singular and plural nouns and adjectives tend to be homophonic. By contrast, in English the nouns are "audibly marked" for number, while determiners are not (Bouchard 2002: 42);
- French can coordinate singular and plural determiners with the disjunctive conjunction *ou* 'or', while English cannot (Bouchard 2002: 47);
- an English determiner can refer to a coordinate structure describing two referents, e.g. *the secretary of John and collaborator of Paul*, while a parallel French structure refers to a single referent (Bouchard 2002: 47).

The difference in coding for Semantic Number plays a crucial role in the way adjectives merge with nouns. In English, with nouns encoded for number, i.e. atomized, the adjective precedes the noun. In French, bare adjectives combine with number-less, non-atomized nouns and thus follow them, in accordance to the setting of the *Central Linearization Parameter* (Bouchard 2002: 60), which for French is set to: "the functor category precedes its dependent" (Bouchard 2002: 61). However, if the bare French adjective is set in a part-to-whole relation, it obligatory precedes the noun. Further evidence for this special relation between a noun and a preceding adjective comes from phonetic data, i.e. the French sandhi (*liaison*) is obligatory and affects all classes of sounds, while for post-nominal adjectives it is possible only with pluralizers (Bouchard 2002: 135).

#### 4.1. The representational model for Polish (CPT 2011a)

In contrast to French, where adjectives merge with bare nouns and thus surface in post-nominal position, and English, where adjectives merge with atomized nouns and thus surface in pre-nominal position, CPT propose a following setting of the Number-Encoding Parameter in Polish (their 25):

(23) The Number-Encoding Parameter in Polish
Semantic Number in Polish can be interpreted either on N alone or on N accompanied by its satellites that participate in establishing the extensity of N.

Besides proposing that Polish adjectives merge either with bare or with atomized nouns, they say that adjectives can merge with nouns in a whole-towhole relationship or in a part-to-whole relationship. Interestingly, they state that when bare nouns merge with adjectives in part-to-whole relationship, lexical idioms are created. They give the following examples (their (13) and (14) respectively), reproduced once again here:

The # sign in (24b) indicates that *paszcza lwia* would be correct if taken to mean a lion's jaw, with *lwia* being a possessive adjective, but not if it were to refer to the plant. By contrast *krówka boża* meaning 'God's little cow' is marked as incorrect.<sup>12</sup>

In all, they offer the following schema of possibilities for noun-adjective merge (their (27)):

#### (26) Modes of noun-adjective merge in Polish

	Merge with non-atomized N (= bareN)	Merge with atomized N (= N+Num)
preN ClassA	(a) <b>lexical idioms</b> in a whole- to-part relation with N (cf. intensional adjectives)	(c) 'migrating' classificatory adjectives in a whole-to- whole relation with N
postN ClassA	(b) <b>'tight units'</b> in a whole-to- whole relation with N	

<sup>&</sup>lt;sup>12</sup> Unless used in a joke, as in a demotivation poster featuring a bovine with a black patch in the form of a cross, see http://www.demoty.pl/boza-krowka-24733 (2013.09.05).

The examples given in (24a) and (25a) illustrate case (a), whereas cases (b) and (c) are illustrated by examples in which the same nominal is accompanied by the same adjective, albeit in a different ordering. Thus the examples (5a) and (5b) above represent 'tight units', which CPT (2011b) describe as 'compound-like'. In examples (6a-c) the preposed adjective represents a 'migrating' classificatory adjective.

They further suggest that classificatory adjectives in a whole-to-whole relation with a noun are not restricted to sequences in which there already is a post-nominal satellite, as in (6a-c): migrating classificatory adjectives may also occur in single adjective–noun complexes, as in (14) and (15) above.

# 4.2. Problematic issues concerning CPT's representational model

An important feature of Bouchard's proposal has to be pointed out before we proceed to examine the way it is applied by CPT. The very idea of distinguishing between adjective merging with non-atomized nouns and with nouns atomized for number and the distinction between part-to-whole relation and whole-to-whole relation seems to be conceived in order to get rid of all kinds of semantic classifications of adjectives, such as intersectional vs. non-intersectional, subsectional vs. non-subsectional, intensional etc. (cf. Cabredo Hofherr 2010; Cinque 2010; Cetnarowska and Trugman 2012, among others, for these and other classifications). The two semantically valid distinctions within adjective modification seem to be whether they merge with bare nouns or with atomized nouns and if they merge in a whole-to-whole relation or into partto-whole relation. As far as I could ascertain, Bouchard does not mention classifying or classificatory adjectives as opposed to qualifying ones, while CPT either imply the existence of adjectives with non-classificatory reading (CPT 2011a), or contrast them with qualifying adjectives (CPT 2011b). However, qualifying adjectives are not discussed in either work, and the reader is left to wonder how they would be defined along the lines of the two ways of merging: with bare or atomized nouns and in whole-to-whole or part-to-whole relation.<sup>13</sup> The only mention of some features that could be used to distinguish them is found in the introductory paragraph of CPT (2011b: 280), namely:

The term "classificatory" is used here in contradistinction to the term "qualifying", with ClassAs restricting the denotation of the noun they modify, whereas Qualifying Adjectives (QualAs) describing a non-defining feature of the head noun […].

<sup>&</sup>lt;sup>13</sup> In the discussion I have referred to (see note 1), qualifying adjectives are mentioned but not defined.

As the notion of "classifying adjective" is not unproblematic either, CPT (2011b) mention a different way this term is used by Bosque and Picallo (1996), and as already mentioned, some part of CPT's criticism of the CPM seems related to differing interpretations of the term in the two models, this omission constitutes an important flaw in CPT's presentation.

Secondly, Bouchard's theory seems – at least at first glance – to be applied to spoken language, as the very quote used by CPT suggests (Bouchard 2002: 37–38, quoted by CPT under (21)):

(27) Four ways to give a form to semantic relations in an <u>oral</u> language [underlining mine]

This might be further confirmed by the reference to English nouns being "audibly marked" for number, and mentioning of *liaison* as a feature distinguishing the pre-nominal use of adjectives. CPT (pc) have commented that I am wrong in claiming that the two statements by Bouchard should be understood that way, particularly in terms of there being some necessary phonetic evidence for the distinction between the two ways Semantic Number is encoded. They are probably right, as while syntactic-semantic phenomena noted in French are also present in Spanish<sup>14</sup>, both phonetic phenomena are absent: plural nouns bear a phonetically non-empty plural marker and there are almost no sandhilike phenomena with pre-posed adjectives, the exception being some specific adjectives that appear prenominally in apocope form.

Nevertheless, the fact that CPT's raw data come from Internet and – as I understand from their work – their informants' judgments of the felicity or grammaticality of some sequences were carried out on written examples is important for my critique of their analyses. The point I am trying to make is that the sequences hosting two or more post-posed adjectives come from two types of texts: company websites and blogs or other spontaneous posts (at least these were the sources of examples given by CPT in response to my challenging of some of their examples). In the light of the generally acknowledged technical or scientific register of such sequences, it is not surprising that they abound in such texts (an issue which I will come back to later). Therefore it is the felicity or acceptability of such sequences in non-technical examples that is being challenged by Rutkowski (2013).

Now, the problem with informal Internet material in Polish is that it tends to reflect the syntax (and other features) of spoken Polish (Zdunkiewicz-Jedynak

<sup>&</sup>lt;sup>14</sup> For single referent vs. multiple referents of a coordinated nominal phrase in Spanish see Camacho (1999: 2655). Disjunctive coordination of a singular and plural article is abundantly attested by the Internet. As one of the anonymous reviewers has pointed out, Italian is like French in all relevant aspects, and the plural is audible on adjectives and nouns.

2009: 93–94).<sup>15</sup> In this linguistic variety, the word order of spoken language is used for written text. However, the intonation that would make such ordering acceptable in truly spoken language is missing. In the normal course of events the context provides readers with enough information to supply the appropriate intonation contour, and in many instances such contour would involve contrastive stress on the adjective (Linde-Usiekniewicz 2008: 260). Though CPT (2011b) acknowledge the existence of adjectives being post-posed under focal stress, they exclude it from the phenomena under discussion. Nevertheless, at least some of the examples they have provided in the discussion mentioned in note 1 are, at least in my opinion, felicitous only when interpreted if not with focal stress, at least with rhetorical phrasing that would require a specific stress pattern.

## 5. What it takes to be a classificatory attribute

Besides the theoretical debate over whether the derivational model or the representational model is better suited to account for the relevant Polish phenomena, a large part of the controversy seems to be rooted in the various ways in which the term 'classificatory' or 'classifying adjective' is understood and how it is contrasted with the term 'qualifying adjective'. The literature on the subject is vast and presented in the works discussed here and also in Cinque (2010), and will not be elaborated on here. However, some general typology of the way these concepts are used is necessary to explain why I believe that CPM and CPT interpret the notion of 'classificatory' in different ways not only in terms of how 'classificatory' readings are produced, but also in terms of what 'classificatory' is in pre-theoretical, semantic terms.

Bosque and Picallo (1996: 349–350) understand 'classificatory' not in contrast to 'qualifying' but as a subclass of relational adjectives, which are in their totality contrasted with 'qualifying'. Within relational adjectives they distinguish 'thematic' adjectives, i.e. those that saturate some thematic role licensed by the noun they modify, and 'classificatory' adjectives, that, although relational, do not. The same adjective can be interpreted as classificatory or thematic, depending on the noun, e.g. (Bosque and Picallo 1996: 353, original glosses):

(28) a. producción automovilística 'car production'b. excursión automovilística 'car trip'

 $<sup>^{15}</sup>$  The Polish term she uses is *język zapisany*, which would translate into transcribed (spoken) language.

In (28a) the adjective "is the theme of the deverbal intransitive NP *produc-ción* 'production'" while no longer so in (28b) (Bosque and Picallo 1996: 353). In addition, some noun and adjective sequences can be interpreted as either thematic or classificatory, e.g. *política americana* 'American policy' which in its reading 'by America' is thematic (with *americana* corresponding to Agent) and classificatory in the reading 'related to America'. Thus the adjectives in (16) and (17) are classificatory and not thematic in the narrow sense in which Bosque and Picallo use the term.

Interestingly, they also note that when two thematic adjectives follow a noun, the one that immediately follows the noun would correspond to the internal argument, and the second one to the external, thus in contrast to (16a) and (16b) in which no difference in possible reference of the nominal group would be noted, the two expressions presented in (29) denote two distinct phenomena (Bosque and Picallo 1996: 360):

Moreover, they observe that when a thematic adjective and a classificatory adjective modify a noun, it is the former that immediately follows the noun (Bosque and Picallo 1996: 360, 368):

(30) a. producción marisquera gallega 'Galician shellfish production'
b. \*producción gallega marisquera 'Galician shellfish production'
(31) a. política europea africana 'African politics about Europe'
b. política africana europea 'European politics about Africa'

Though CPT use the term 'classificatory' in a broader sense (CPT 2011b), and their examples contain both thematic adjectives and non-thematic ones, the distinction is important for Polish as well. Its importance is illustrated by the following set of examples:

(32) a. *kształcenie zawodowe*<sup>16</sup> 'lit. training occupational' 'occupational training'

<sup>&</sup>lt;sup>16</sup> This example is inspired by Willim's (2001) *profesjonalne kształcenie zawodowe* 'lit. professional vocational training' (quoted in Rutkowski (2009)) in which *profesjonalne* can be read in two ways: 'done by professionals' (who may nevertheless do a poor job) and 'skilled'.

- b. *zawodowe kształcenie* 'lit. professional training' 'training by professionals'
- c. *kierowca rajdowy*'lit. driver rally (adj)'
  'rally driver'
- d. \*rajdowy kierowca<sup>17</sup>
- e. kierowca zawodowy 'lit. driver professional' 'professional driver'
- f. zawodowy kierowca'lit. professional driver''professional driver'

In (32a) zawodowy refers to the internal argument of the noun training and is not likely to be placed pre-nominally in that sense, unless under contrasting focal stress. By contrast in (32b) it refers to the thematic role of Agent. Similarly in (32c) since the 'rally' corresponds to the internal argument of 'to drive', the adjective would be post-posed. In (32e-f) the adjective is non-thematic, and can appear either pre- or post-nominally, again without notable semantic difference. Irrespectively of whether we accept the CPM or the CPT account of the phenomena in question, the distinction between thematic and non-thematic adjectives, and possibly between thematic adjectives corresponding to internal and external arguments of the nouns seems to be a factor influencing the possibility of their being pre-posed or not.

However, neither the CPM<sup>18</sup> nor CPT's account invokes this kind of distinction and the difference in their ways of understanding 'classificatory' lies elsewhere. Though neither might agree with my interpretation of their intuitions about what is and what is not a classificatory phrase, I do believe that it is their intuitions that diverge. Indirect evidence can be seen in the way each model explains the meaning of classificatory phrases. CPT write:

As discussed above, this modification [with post-nominal adjectives] occurs with N unmarked for semantic Number, when ClassAs establish the whole-to-whole relationship with nonatomized N in postposition and form with the latter a new natural class, or kind, defined by the two sets of properties determined by N and ClassA simultaneously. Each subsequent ClassA further restricts the denotation, generating multiple postN ClassAs. (CPT 2011a: 37)

<sup>&</sup>lt;sup>17</sup> This example is acceptable either with contrastive focal stress on the adjective, though with no other notable semantic difference, or possibly in the sense of 'fast-driving'.

<sup>&</sup>lt;sup>18</sup> On the contrary, Rutkowski (2009: 102) considers this distinction immaterial for Polish.

Our claim that ClassAs hold a similar semantic relation with N in both positions is buttressed by the existing pairs of noun-adjective combinations with alternating adjective placement. (CPT 2011a: 40)

CPT, in their second paper (2011b), informally characterize their classificatory adjectives as "restricting the denotation of the noun they modify" (as can be seen in the quote in 4.2). Further on they write:

ClassAs are taken to modify a bare N predicate (or a non-atomized N), forming with the latter, what we called, a "tight unit" – a complex nominal predicate defining a single set of individuals by the two properties simultaneously, those of N and A. (CPT 2011b: 281)

In contrast, Rutkowski seems to be understanding 'classificatory' not in the sense of defining a single set of individuals, but in the sense of establishing a criterion by which a larger set of individuals is divided into at least two different and contrasting classes. When refuting Węgrzynek's (1995) proposal to treat the possibility of being modified by a post-nominal adjective as a lexical property of the noun, he asserts that there is no restriction on nouns being thus modified. When commenting on her original pair of examples: an acceptable *kuna leśna* 'pine marten, lit. forest marten' and unacceptable \*ścieżka leśna 'lit. path forest', he writes that it is "quite easy to imagine a classification of paths in which there would be a type called a forest path, as opposed to let us say a field path" (Rutkowski 2009: 103, translation mine). 19 Moreover, in personal communication, to refute my counterexamples, Rutkowski has also made use of the concept of establishing at least one opposing member of a classification.

This implicit contrast is also noted in Willim (2000b: 159) in her *zdrowe dziecko* 'a healthy child' example contrasted with *rejestracja dziecka zdrowego*, where the latter actually refers to the registration for children brought to the out-patient pediatric clinic for either vaccination or a scheduled developmental check-up, as opposed to children brought in because of some illness. Similar insight underlies yet another account of the difference between pre-nominal and post-nominal adjectives in Polish, proposed by Tabakowska (2001) within the framework of cognitive linguistics. For her the post-nominal adjective supplies a *differentia specifica* element in the cognitive process of categorization (Tabakowska 2001: 584–585).<sup>20</sup>

<sup>&</sup>lt;sup>19</sup> Inquiringly, this implicit semantic contrast is not mentioned in other works presenting the CPM (Rutkowski and Progovac 2005, 2006).

<sup>&</sup>lt;sup>20</sup> Tabakowska argues that the ordering of adjectives in relation to the nouns they modify is governed by 'diagrammatic iconicity' and particularly by the 'principle of sequentiality' (Tabakowska 2001: 581). She also proposes to analyze Polish pre-nominal use of adjectives in terms of Langacker's cognitive grammar as a reversal of the landmark-trajector relation (Tabakowska 2001: 583). Her account is partly challenged in Szumska 2010, who proposes yet another analysis for series of prenominal adjectives featuring a value adjective (e.g. one meaning 'good', 'bad', 'interesting', etc.). Since the discussion between Tabakowska and Szumska is carried out

The two ways in which the notion of classificatory meaning is framed within CPT and CPM models leads me to believe that there is a conceptual difference involved between the two understandings. Thus for CPT 'classificatory' means something along the lines of 'establishing a subset among existing individuals'; therefore it is to a large degree immaterial to the meaning of the phrase whether the adjective combines with an atomized or a bare noun (CPT 2011b) or appears pre- or post-nominally (as also noted Willim 2000a; 2000b; 2001, quoted by them). A subset is singled out from a possibly heterogeneous but otherwise undefined set of phenomena or objects. For the CPM 'classificatory' as in 'classificatory phrase' establishes not only a class, but also at least by default yet another class, positively contrasted with the one the classificatory phrase refers to.<sup>21</sup> This is best illustrated by the contrast between the (a) and the (b) versions of phrases taken from Rutkowski (2009) and from CPT (2011b):

```
(33) a. język obcy
      'lit. language alien'
      'foreign language'
    b. obcy język
      'foreign/alien language'
(34) a. ludzie mądrzy
      'lit. people wise'
      'wise people'
    b. mądrzy ludzie
      'wise people'
(35) a.dyżur nocny
      'lit. duty night (adj.)'
      'night duty'
    b. nocny dyżur
      'night duty'
(36) a. lampa naftowa
      'lit. lamp oil (adj.)'
      'oil lamp'
    b. naftowa lampa
      'oil lamp'
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The contrast between (33a) and (33b) is particularly illuminating here: the first phrase establishes the very concept of a language not acquired as the mother tongue. Interestingly, no language is foreign per se, as any language can, at least

on methodological grounds hardly compatible with the CPT vs. CPM debate, it falls outside the scope of the present paper.

<sup>&</sup>lt;sup>21</sup> Cetnarowska and Trugman (2012: 146–147) recognize this semantic value of post-nominal adjectives, yet it does not affect their understanding of 'classificatory' (2012: 140).

in theory, be the mother tongue of an individual, so it cannot be said that the feature of being foreign can combine with the noun *language* to restrict its denotation. By contrast, the second phrase singles some language(s) as not being mother tongue(s) of some individual(s). Intriguingly, but not exactly surprisingly, the distinction may surface in sentences involving scope phenomena: If the non-classificatory version is used in Polish equivalent of *Two foreign languages are known to everybody in this room* (*Dwa obce języki są znane wszystkim na tej sali*), the preferred reading is the one in which everybody in the room knows the same two foreign languages (though the other reading is also available). If the classificatory phrase is used (*Dwa języki obce są znane wszystkim na tej sali*), the preferred reading is the one under which everybody in the room speaks at least two foreign languages (i.e. languages that are not their mother tongues), though there is no suggestion about their being the same languages.

Similarly, *mądrzy ludzie* refers to individuals singled out by their wisdom, without suggesting that other individuals could be unwise. In contrast, *ludzie mądrzy* suggests that some other people are unwise. Again the contrast between *Mądrzy ludzie tak nie robią* 'Wise people don't do that' and *Ludzie mądrzy tak nie robią*, would be that in the case of the former there is a strong suggestion about the existence of some wise people who do not act in a certain way, while in the case of the latter there is no such suggestion and the sentence would tend to be interpreted somehow along the lines of 'people don't do that if they are wise' or 'people who are wise don't do that'.<sup>22</sup>

#### Conclusion

If the hypothesis about the difference between the two ways the term 'classificatory' is intuitively understood in the two models discussed above is correct, it is not surprising that CPT's model allows for pre-posed classificatory adjectives and CPM does not. It would also explain why CPT allow for post-nominal sequences of classificatory adjectives (in their sense of classificatory) while for CPM they are considered appositional (on a par with Cinque's 2010 reduced relative clauses) and no longer classificatory: only the leftmost adjective is used in such a sense as to create the two contrastive concepts, while the others in the sequence only restrict the scope of the phrase to a subset of referents that can be further defined by the feature expressed by the adjectives' lexical meaning, and do not create a contrastive class. Nevertheless, what the

<sup>&</sup>lt;sup>22</sup> Which is not to say that I claim that these phrases should be interpreted as reduced relatives. I am indebted to Lea Sawicki (pc) for her suggestions about the sense distinction involved here.

CPM fails to address is the question of why in some cases we get a clear and substantial contrast in meaning between the classificatory phrase and a non-classificatory one, as in (1a) as opposed to (1b), while in others there is a distinction but it is much more difficult to pin down (as in 34ab, 35ab and 36ab). I believe that the question cannot be resolved without reference to some classification of adjectives, both in terms of their lexical semantics and, for some of them, in terms of their saturating or not saturating a thematic role licensed by the nouns they modify.

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