

So-Called Collective Numerals in Polish

(in Comparison with Russian)

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Abstract

This paper deals with Polish numeral forms of the type *pięcioro* and conditions for using them. The problem in question (as in Russian) is how to interpret them: either as forms of special (“collective”) lexemes or as members of homogeneous lexemes (cardinal numerals). The author shows that these forms have basically the same meaning as cardinal numerals: they express plurality when certain nouns require them, and secondarily have the additional facultative meaning of a group of people containing both sexes. The basic function of the opposition *pięcioro*:*pięć* is similar to distinguishing genders on the basis of the subordinated word forms. The contrast with other gender forms is not very sharp (many unclear cases are shown), but the kernel of the neuter subgender defined by obligatory use of *pięcioro* forms contains one noun (*dziecko* ‘child’) that is very frequently used with numeral forms.

1 Introduction – Linguistic Material

In Polish, as in Russian, there exists a group of numeral forms traditionally called collective numerals. As “regular” Polish cardinal numerals, they are contrasted for case. Let us see two examples – the forms corresponding to the numbers 2 and 5:

Nom	<i>dwoje</i>	<i>pięcioro</i>
Gen	<i>dwojga</i>	<i>pięciorga</i>
Dat	<i>dwojgu</i>	<i>pięciorgu</i>
Acc	<i>dwoje</i>	<i>pięcioro</i>
Inst	<i>dwojgiem</i>	<i>pięciorgiem</i>
Loc	<i>dwojgu</i>	<i>pięciorgu</i>
Voc	<i>dwoje</i>	<i>pięcioro</i>

According to Polish traditional grammar handbooks and dictionaries, such sets of contrasted forms are treated as lexemes (for the above examples *dwoje* and *pięcioro*), inflected for case, and separate from cardinal numerals (in our cases *dwa* and *pięć*). In dictionaries of contemporary Polish (and – with some limitations, which we will show further – in modern usage), we can find analogous series of forms differentiated by the value of case for numbers: 2, 3 (*troje*, cf. *trzy*), 4 (*czworo*, cf. *cztery*), 5, 6 (*sześcioro*, cf. *sześć*), 7 (*siedmioro*, cf. *siedem*), 8 (*ośmioro*, cf. *osiem*), 9 (*dziwięcioro*, cf. *dziwięć*), 10 (*dziesięcioro*, cf. *dziesięć*), 11 (*jedenascioro*, cf. *jedenaste*), 12 (*dwanaścioro*, cf. *dwanaście*), 13 (*trzynaścioro*, cf. *trzynaście*), 14 (*czternaścioro*, cf. *czternaście*), 15 (*piętnaścioro*, cf. *piętnaście*), 16 (*szesnaścioro*, cf. *szesnaście*), 17 (*siedemnaścioro*, cf. *siedemnaście*), 18 (*osiemnaścioro*, cf. *osiemnaście*), 19 (*dziewiętnaścioro*, cf. *dziewiętnaście*), 20 (*dwadzieścioro*, cf. *dwadzieścia*), 30 (*trzydzieścioro*, cf. *trzydzieści*), 40 (*czterdzieścioro*, cf. *czterdzieści*), 50 (*pięćdzieścioro*, cf. *pięćdziesiąt*), 60 (*sześćdzieścioro*, cf. *sześćdziesiąt*), 70 (*siedemdzieścioro*, cf. *siedemdziesiąt*), 80 (*osiemdzieścioro*, cf. *osiemdziesiąt*), 90 (*dziwięćdzieścioro*, cf. *dziwięćdziesiąt*).

Moreover, the same series exist for numerals with special meaning: *oboje* – for *oba* ‘both’, *obydwoje* – for *obydwa* ‘both’, *kilkoro* – for *kilka* ‘several’, *kilkanaścioro* – for *kilkanaście* ‘a dozen or so’, *naścioro* – for *naście* ‘a dozen or so’, *kilkadziesięcioro* – for *kilkadziesiąt* ‘a few dozen’.

It is easily seen that the traditional Polish name for these units, “liczebniki zbiorowe” (collective numerals), parallel to the Russian one (собира́тельные числи́тельные), does not correspond to their meaning. Contrary to Russian, in contemporary Polish the meaning of the forms considered does not contain the additional (in relation to regular cardinal numerals) component ‘all’, causing the noun phrase to be considered as a homogenous group (see Mel’čuk, 1982, 1985). Such a component is present in the lexemes *oba* / *obydwa* (including the series *oboje* / *obydwoje*) ‘both’ as opposed to *dwa* (including the series *dwoje*) ‘two’. Therefore, in order to avoid that awkward term, we will call the forms under discussion simply *pięcioro* forms. Their meaning will be shown below.

The central problem of our paper is the interpretation of the case-differentiated *pięcioro* forms: whether they should be treated as separate lexemes inflected for case or included into more complicated numeral lexemes (of the type *pięć*), with the form differentiated according to the case and gender contrast. The first solution (the traditional one) was also accepted by Laskowski (1984, 1998). The second solution was proposed by me over thirty years ago (Saloni, 1976) and included in many later articles (Saloni 1977, 1992, 2003) and handbooks (Saloni & Świdziński, 1987; Saloni et al., 2007), but it was not discussed separately. Such a discussion is the main purpose of this paper.

2 The Situation in Russian

Analogous forms in Russian correspond only partially with their counterparts in Polish. The first similarity concerns their inflection for case. Let us take parallel examples of the forms corresponding to the numbers 2 and 5:

Nom	<i>двое</i>	<i>пятеро</i>
Gen	<i>двоих</i>	<i>пятерых</i>
Dat	<i>двоим</i>	<i>пятерым</i>
Acc	<i>двое</i>	<i>пятеро</i>
Inst	<i>двоими</i>	<i>пятерыми</i>
Loc	<i>двоих</i>	<i>пятерых</i>

In Russian tradition these series of forms are treated as the lexemes *двое* and *пятеро*, inflected for case, and separate from the cardinal numerals *два* and *пять*. Analogous series of forms differentiated by the value of case exist for the numbers 2, 3 (*трое*, cf. *три*), 4 (*четверо*, cf. *четыре*), 5, 6 (*шестеро*, cf. *шесть*), 7 (*семеро*, cf. *семь*), 8 (*восьмеро*, cf. *восемь*), 9 (*девятеро*, cf. *девять*), 10 (*десятеро*, cf. *десять*) – and only for them.

Thus the set of forms in question is in Russian distinctly smaller than in Polish. First of all, we should notice the lack of a set of forms of the type *двое* / *пятеро* for the lexeme *оба* ‘both’. It can be seen as a natural consequence of their meaning, which includes the additional component ‘all’, characteristic of collective numerals (собира́тельные числи́тельные) and visible in such phrases as *трое солдат*, as opposed to *три солдата* (both roughly translatable as ‘three soldiers’), although the semantic relations between such phrases are much more complicated (see Mel’čuk, 1985). The irregularity of the meaning was the basic reason for Mel’čuk’s decision that collective numerals are separate lexemes in Russian.

The interpretation of analogous numeral forms in Russian is not unanimous. Bogusławski (1966) proposed to include forms of the type *двое* into the class of homogeneous numeral lexemes of the type *два*. The strongest argument for interpreting forms of the type *двое* co-occurring with *plurale tantum* nouns as belonging to cardinal numeral lexemes is their semantic identity with other forms of these lexemes joined with forms of nouns inflected for number. Such a solution is for Zaliznjak (1967: 87) obvious. The form *двое* in the construction *двое саней* ‘two sleighs’ (*сани* ‘sleigh’ being grammatically plural) is required by the noun forms in the same way as the form *два* in the construction *два мальчика* ‘two boys’ is re-

quired by the noun *мальчик*, or the form *две* in the construction *две девушки* 'two girls' by the noun *девушка*.

3 Basic Properties of *pięcioro* Forms in Polish

A similar grammatical contrast, and more distinctive, appears in Polish.

3.1 Semantics

It is evident that the majority of Polish numerals (cardinal numerals) inflect not only for case, but also for gender. If we want to translate into Polish the English sentences *I see five boys* and *I see five girls*, we must use distinct forms of the same lexeme *pięć*:

- (1) (a) *Widzę pięciu chłopców.*
(b) *Widzę pięć dziewczyn.*

The opposition is the same as for forms of adjectives and verbs joined with noun forms of different genders¹:

- (2) (a) *To był dobry chłopiec.* 'This was a good boy.' (masculine animate or virile: *M1*)
(b) *To była dobra dziewczyna.* 'This was a good girl.' (feminine: *F*)
(c) *To było dobre dziecko.* 'This was a good child.' (neuter: *N*)

However, if we want to use a form of the lexeme *dziecko* 'child' in a sentence parallel to (1a–b), i.e., differing only by the meaning of the noun, we use neither the form *pięciu* nor the form *pięć*, but the form *pięcioro*:

- (3) (a) *Widzę pięcioro dzieci.* 'I see five children.'
(b) **Widzę pięć dzieci.*
(c) ***Widzę pięciu dzieci.*

The sentence (3c) cannot be produced by any competent speaker of Polish. Sentences of type (3b) occur in spoken Polish, but they are understood as non-standard, belonging to lower layers of contemporary Polish. Somebody using them would be treated as a non-competent user of the cultured dialect of Polish. The forms *pięciu*, *pięć*, and *pięcioro* in sentences (1a), (1b), and (3a) have the same meaning, '5'.

3.2 Morphology

The form *pięcioro* in (3a) is opposed to the numeral forms in (1a–b) on the basis of gender.

The same holds for all forms in other cases parallel to *dwoje*, i.e.:

- (4) Nom *To jest* *dwoje* / *pięcioro* (**pięć*) *dzieci.* 'They are two/five children.'
Gen *Oczekuję* *dwojga* / *pięciorga* (**pięciu*) *dzieci.* 'I am awaiting two/five children.'

¹ Following a long and important tradition, we understand grammatical gender in the noun as its syntactic property, consisting of requiring a particular form of the subordinate word. Thus grammatical gender of a noun manifests itself in the forms of the words associated with it (in the linguistic literature grammatical genders are sometimes called noun or agreement classes; in Zaliznjak (1967) they are called согласовательные классы). Aside from traditional masculine, feminine, and neuter genders in Polish, we distinguish an additional gender, which we name *co-plural* and mark with the symbol *P*. Some of these basic gender classes are subdivided. As is accepted in contemporary Polish linguistics, the masculine gender is divided into three subgenders on the basis of the accusative (singular and plural) forms of adjectives governed by the nouns (see Mańczak 1956). The subdivision of the genders *N* and *P* will be discussed further.

Dat	<i>Ufam</i>	<i>dwojgu / pięciorgu (*pięciu) dzieciom.</i>	‘I trust two/five children.’
Acc	<i>Lubię</i>	<i>dwoje / pięcioro (*pięć) dzieci.</i>	‘I like two/five children.’
Inst	<i>Interesuję się</i>	<i>dwojgiem / pięciorgiem dzieci (*pięcioma dziećmi).</i>	‘I am interested in two/five children.’
Loc	<i>Mówię o</i>	<i>dwojgu / pięciorgu (*pięciu) dzieciach.</i>	‘I like two/five children.’

We did not include here all possible variants of the constructions; in any case the occurrence of collective and regular cardinal numerals is shown. The starred forms given in parentheses may occur in nonstandard variants of Polish, more often in oblique cases (analogous forms do not occur for *dwa*). The forms given before the parentheses are obligatory in contemporary standard Polish. The numeral forms in parentheses are used in Polish in the indicated cases with other nouns. (The vocative is syncretic with the nominative.)

Thus, this is a sufficient argument for including all *pięcioro* forms into the class of cardinal numeral lexemes (of the type *pięć*) as special gender forms. However, this gender cannot be called simply neuter (*N*) because only some neuter nouns in Polish have the property of occurring in constructions like (4), distinguished on the basis of the contrast shown in (2). The majority of neuter nouns in Polish require other forms of numerals (regularly “cardinal”), cf. *okno* ‘window’:

(5)	Nom	<i>To są dwa okna. / To jest pięć okien.</i>	‘They are two/five windows.’
	Gen	<i>Oczekuję dwóch / pięciu okien.</i>	
	Dat	<i>Ufam dwu / pięciu oknom.</i>	
	Acc	<i>Lubię dwa / pięć okien.</i>	
	Inst	<i>Interesuję się dwoma / pięcioma oknami.</i>	
	Loc	<i>Mówię o dwu / pięciu oknach.</i>	

Therefore we distinguish two neuter subgenders in Polish (only on the basis of constructions with numerals). We mark them with the symbol *N1* (for *dziecko* ‘child’) and *N2* (for *okno* ‘window’). This division will be discussed later.

The second group of noun requiring *pięcioro* forms in Polish is a subset *P2* of *plurale tantum* nouns (named *co-plural* and marked with the symbol *P*). In this respect Polish is very close to Russian. Typical members of this subset are such nouns as: *sanie* ‘sleigh’, *drzwi* ‘door’, *skrzypce* ‘violin’. In standard Polish (and in many non-standard variants) the only possible way of joining the meaning ‘door’ with the meaning of a given natural number is the construction with *pięcioro* forms. There is no limitation on the rank of number. If you want (in a fairytale or computer game) to express the meaning that somebody crossed 17 doors, you should say in standard Polish:

(6)	<i>Przeszedł siedemnaścioro drzwi.</i>
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Occurrences of the noun *skrzypce* with *pięcioro* forms are stabilized. In a string quartet there are two violins, and there are many concertos and other compositions for 2, 3, 4, and more violins. So it is easy to find proper collocations: *dwoje*, *troje*, *czworo*, *pięcioro*, *sześcioro*, *siedmioro*, and *ośmioro skrzypiec* (e.g., Andreas Vollenweider, *Koncert na ośmioro skrzypiec i orkiestrę* ‘Concerto for 8 violins and orchestra’). If some composer writes a composition for 18 violins, it will be called in Polish *Kompozycja na osiemnaścioro skrzypiec*. Theoretically there are no limitations on the number of counted objects. Practically, such limitations exist and we will discuss them further.

Thus, *pięcioro* forms should be treated as regular forms of the corresponding numerals for gender *N1* and *P2*. The lack of such forms for some numerals is no obstacle for such a description. In those cases the nouns of these genders co-occur with non-virile numeral forms (syncretic with genders *F* and *N2*), e.g.:

- (7) (a) *Dziś w przedszkolu jest sto dzieci, choć wczoraj było tylko **dziewięćdziesięcioro**.*
 'Today in the kindergarten there are a hundred children, although yesterday there were only ninety.'
 (b) *X wprowadził tyle skrzypiec, bo miał specjalny cel: **siedmioro** skrzypiec to był symbol.*
 'X introduces so many violins, because he had a special purpose: seven violins were a symbol.'

3.3 Syntax

One of main arguments against "morphological" treatment of Russian collective numerals (as belonging to regular lexemes of cardinal numbers) is, for Mel'čuk (1985), their inability to occur in complex (composite) names of numbers (of the type *two hundred thirty one*), even if semantic and pragmatic factors require using them: "inscriptions 43 *смок* '43 days', 74 *смок* '74 days', etc., cannot be pronounced orally, because **сорок трое* and **семьдесят четверо* are absolutely impossible, while *сорок три* and *семьдесят четыре* cannot join with *pluralia tantum*" (Mel'čuk 1985: 378–9, translated).

This is not the case with Polish *pięcioro* forms. They can be joined in names of numbers of higher rank. Every Pole knows the childish song:

- | | | |
|-----|---|--|
| (8) | <i>Ojciec Wirgiliusz
uczył dzieci swoje,
a miał ich wszystkich
sto dwadzieścia troje.</i> | <i>'Father Virgilius
taught his children;
and he had altogether
a hundred and twenty three of them.'</i> |
|-----|---|--|

The only problem here is the co-occurrence of the form *troje* '3' with the "cardinal" *dwadzieścia* '20'. The difficulty is caused by the question of rules for creating such complex names of numbers, which in Polish are rather complicated and not entirely stabilized (see Gruszczyński & Saloni, 1978). However, the construction *sto dwadzieścioro troje dzieci* is not only possible, but fully acceptable (although very rare).

Such collocations, e.g., *dwadzieścioro dwoje*, *dwadzieścioro troje*, *dwadzieścioro czworo*, *trzydzieścioro dwoje*, *trzydzieścioro troje*, *trzydzieścioro czworo*, are represented on the Internet by at least 90 occurrences. They join, first of all, with the word *dzieci*; however other nouns are also widely represented there, e.g., *uczniów* 'students', *turystów* 'tourists', *solistów* 'soloists', *maluszków* 'toddlers'. These nouns are neither of gender *N1* nor *P2*, but *M1* (masculine animate or virile). Here we see an additional syntactic property of *pięcioro* forms. We will discuss it in the next section.

Special attention should be brought to names of complex numbers with the last component '1', e.g., 21, 31, etc. In such constructions containing *pięcioro* forms we use for this '1' the form *jeden* (in all genders and cases). The same applies to all names of complex numbers with the final component '1'. So we say:

- (9) (a) *Było tam **dwudziestu jeden** chłopców.* 'There were twenty one boys there.'
 (b) *Było tam **dwadzieścia jeden** dziewczyn.* 'There were twenty one girls there.'
 (c) *Było tam **dwadzieścioro jeden** dzieci.* 'There were twenty one children there.'
 (d) *Było tam **dwadzieścioro jeden** uczniów.* 'There were twenty one students there.'

There are a few dozen occurrences of this collocation on the Internet.

4 The Scope of Using *pięcioro* Forms

Using *pięcioro* forms in Polish is certainly limited. An obvious factor is coordination of their meaning with their appearance in texts: the higher the number, the lower the probability that constructions will occur with *pięcioro* forms. It is observable even in collocations with the main noun requiring them, **dziecko**: *dwoje / troje / czworo dzieci* are obligatory, *pięcioro ... dziesięcioro dzieci* relatively frequent (*pięć ...*

dziesięć dzieci treated as incorrect), *jedenascioro ... dziewiętnascioro dzieci* rare (*jedenascie ... dziewiętnascie dzieci* tolerated), *dwadzieścioro ... dziewięćdziesięścioro dzieci* very rare².

Let us discuss now in detail the situations when *pięcioro* forms are used. In the first two subsections we will discuss basic (gender) rules when such a form is required by a noun form: for gender *N* and *P*. In the last subsection we will examine using *pięcioro* forms optionally with masculine animate nouns (*M1*).

4.1 Constructions with Neuter Nouns

According to general opinion, the use of *pięcioro* forms is very limited. We must agree with this opinion, although we insist on our gender interpretation of this form.

It is true that the set *N1* is very small. There are only several nouns where *pięcioro* forms are obligatory. First, there is the lexeme *dziecko* discussed broadly in the previous sections. Second, there are two neuter nouns denoting binary sense organs: *oko* 'eye' and *ucho* 'ear'. In the basic meaning the only possibility for expressing definite plurality is using *pięcioro* forms. This fact is true not only for the number '2', but also for others, e.g., for '4' only *czworo oczu / uszu* (in such constructions with numerals we use the archaic dual forms). However, in secondary meanings these lexical units change their grammatical properties: they have regular plural forms and join with regular (*N2*) numeral forms, e.g., there are *dwa (cztery) oka w sieci* 'two (four) meshes in a net' or *dwa (cztery) ucha przy torbie* 'two (four) handles on a bag'.

Third, as traditional handbooks of Polish grammar state, *pięcioro* forms join with neuter nouns denoting non-adult creatures. More precisely, they are limited to some structural group of these nouns. These are nouns ending with *-ę* (and having an extended stem in other forms of the singular *-ęci-* and plural *-ęci-*), e.g., *kurczę* 'chicken', *szczenię* 'puppy' – they belong to the set *N1*, which is not very large. In the *Grammatical Dictionary of Polish* (Saloni et al., 2007), it consists of about 100 lexemes. The diminutives of *N1* nouns, e.g., *kurczątko*, *szczeniátko*, as well as other neuter nouns that are names of creatures, e.g., *maleństwo* 'little one', do not belong to *N1*, but to *N2*.

A problem with this group of nouns is that their appearance is limited. They are used only in some regions of Poland (in the standard cultured dialect), but are generally understood and accepted. They do not belong – with two exceptions – to my own active vocabulary. As a theoretician I would accept them only with *pięcioro* forms. Laskowski, who descends from the region where they are actively used, wrote that they occur with these forms optionally (Laskowski, 1998:63).

Two lexemes from this group that can be used in all parts of Poland are *zwierzę* 'animal' and *dziewczę* 'maiden'. The first belongs to fundamental biological terminology on the level of primary school, the second is pathetic in singular, but neutral and common in plural (*dziewczęta*). Both can be used in either construction: *pięcioro zwierząt (dziewcząt) / pięć zwierząt (dziewcząt)*. Forms of the noun *zwierzę* are rarely used with numeral forms, but *dziewczęta*, *dziewcząt*, etc., are easily and neutrally used with non-collective forms. The relatively popular German musical production *Das Dreimäderlhaus* 'The House of Three Maidens' played in Poland under the title *Domek trzech dziewcząt*. I have known this title for a half century, but noticed that there is something suspicious in the formulation only when I started to analyze how Polish numeral forms are used.

In modern Polish some archaic phraseological expressions with *pięcioro* forms can also be met, e.g., *dziesięścioro przykazań* 'ten commandments' or *doktor obojga praw* 'Doctor of both laws', although the nouns *przykazanie* and *prawo* in contemporary Polish belong to the gender *N2*³.

4.2 Constructions with Co-Plural Nouns (*Pluralia Tantum*)

The co-plural nouns in Polish (as in Russian) are divided into two main subsets, corresponding to the division of nouns inflected for number. The main gender contrast in the plural in Polish is between mascu-

² There are characteristic lacunae in the sequence of lexemes corresponding to them in Polish dictionaries (see Kucała, 1976).

³ There is also an archaic collocations with a *pięcioro* form with a feminine noun: *ludzie płci obojga* 'persons of both sexes'.

line animate (*M1*) nouns and other nouns. In accusative plural we have two possibilities of gender agreement:

- (10) (a) *Widzę **dobrych** chłopców.* `I see good boys.' (*M1*)
 (b) *Widzę **dobre** dziewczyny.* `I see good girls.' (*F*, also *N*, *M2*, *M3*)

The same contrast is observable between groups of co-plural nouns:

- (11) (a) *Widzę **dobrych** rodziców.* `I see good parents.' (*P1*)
 (b) *Widzę **dobre** skrzypce.* `I see good violin(s).' (*P-1*)

Nouns occurring in contexts like (11a) we will mark *P1*, analogously to *M1*. The complement of the subset *P1* will be temporarily marked in a parallel fashion as *P-1*; it will be further subdivided.

As we have shown, some nouns of the subset *P-1* occur with *pięcioro* forms. To our examples *sanie* `sleigh', *drzwi* `door', *skrzypce* `violin' we may add further: *grabie* `rake', *widły* `pitchfork', *cymbały* `dulcimer', and also *nożyce* `shears', *nożyczki* `scissors'.

Two last examples are characteristic: in English, as well as in Russian and in many other languages, they have *plurale tantum* equivalents. This is the consequence of their physical structure – as paired objects, consisting of two mutually symmetric parts. And for such objects there is another way of expressing specified plurality: *dwie pary nożyc (nożyczek)* `two pairs of shears (scissors)'. This is a surrogate, lexical means of expressing plurality, which exists in various languages.

This is a rule for other *pluralia tantum* (*P*) nouns in Polish, especially referring to sets of two separate symmetric objects, which are destined for symmetric parts of the human body, e.g., *buty* `shoes' (with all possible kinds and varieties), *rękawiczki* `gloves', *skarpetki* `socks', *pończochy* `stockings', *narty* `skis', etc. For all of them there are corresponding regular two-number nouns, e.g., *but*, *rękawiczka*, *skarpetka*, *pończocha*, *narta* (the same equivalence exists in English and other languages). The noun phrase *para butów (rękawiczek, skarpetek, pończoch, nart)* is synonymous with the lexeme *buty* denoting an ordered set of two objects: and combining such a phrase with a numeral is the only way of expressing definite plurality of such objects. These constructions are created according to the general rules for joining forms of numerals and nouns in Polish (see Saloni, 1977), e.g.:

- (12) (a) *Mam **parę** butów.* `I have **a pair of** shoes.'
 (b) *Mam **dwie pary** butów.* `I have **two pairs of** shoes.'
 (c) *Mam **pięć par** butów.* `I have **five pairs of** shoes.'

It is impossible to add a numeral form immediately to such a noun form. Therefore, we divide the class of non-virile *pluralia tantum* (*P-1*) into to subclasses: *P2* (which occur with numeral forms, i.e., with the *pięcioro* form) and *P3* (which do not occur with any numeral form).

The core of the set *P2* is shown above. It consists of names of distinctively formed material objects that do not have a paired structure (although they are often symmetrical), like violin, rake, or pitchfork. The most interesting case is the noun *drzwi* `door'. A door is usually asymmetrical, however many types of doors are not only symmetrical, but consist of two separate parts, approximately mutually symmetrical. Such types of doors have Polish *plurale tantum* nouns, e.g., *wrota*, *wierzeje*, *podwoje*, which cannot co-occur with numeral forms; they belong to the set *P2*.

The border between sets *P2* and *P3* is not distinct. The words *nożyce* and *nożyczki* are examples of nouns for which definite plurality may be expressed in both ways: immediately with numerals (i.e., with *pięcioro* forms) or in descriptive constructions with the noun *para* `pair'. This border group is very broad; it contains the names of clothes (and similar objects) having a symmetrical structure: *spodnie* `trousers', *majtki* `underpants', *kalesony* `long johns', *okulary* `glasses', etc. (its dual structure is seen in the *plurale tantum* form, also in English equivalents), which cannot be joined with numeral forms – they belong to the set *P2*. If we count such objects, we use descriptive constructions much more often, e.g. *pięć par*

spodni, dwie pary majtek (okularów). The constructions with numeral forms occur much more rarely, e.g., *pięcioro spodni, dwoje majtek (okularów)*.

We may distinguish two more groups of nouns belonging to the set *P-1*: the names of events: *urodziny* 'birthday', *imieniny* 'name day', *zajęcia* 'classes (a unit of timetable in universities and other schools)' (there is analogous group of *pluralia tantum* in Russian), and names of substances: *perfumy* 'perfume', *fusy* 'dregs', *pomyje* 'swill'. Counting such objects is rather atypical (see Kucała, 1976), but – for some of them – quite possible. It happens that somebody participated twice in another person's birthday or had classes with two different groups of students and wants to communicate this fact. He has two possibilities: to use a descriptive way of communicating or to use a *pięcioro* form, e.g.:

(13) *Byłem na dwojgu urodzinach.* 'I was at **two** birthday parties.'

This possibility is rather theoretical, but one can find on the Internet occasional examples of such constructions. There is no other possibility for combining forms of these nouns with numeral forms. The same concerns names of substances that can be joined with numerals in secondary meanings, e.g.:

(14) *Lubi tych dwoje perfum.* 'She likes these **two** perfumes.'

In the *Grammatical Dictionary of Polish* (Saloni et al., 2007), we marked such nouns *P2*, although the correctness of sentences like (14) may be called into question.

Virile co-plural nouns *P1* in Polish also co-occur with *pięcioro* forms. There are two subsets of them.

The first (and much more numerous) subset consists of names of (married) couples, e.g., *rodzice* 'parents', *dziadkowie* 'grandparents, literally: grandfathers' *narzeczeni* 'betrothed (couple)', etc. We should pay attention to a specific subset of this group: lexemes derived from regular *M1* nouns with the suffix - (o)stwo⁴, e.g., *państwo* 'Mr. and Mrs.', *profesorostwo* 'professor with his wife', *wujostwo* 'uncle (wuj) with his wife', *kuzynostwo* 'cousin (kuzyn) with his wife'. This derivational class is productive. It is quite possible to create occasionally such nouns, although their use is limited. They are treated as obsolete, official, not common. There are only over a hundred such nouns in Polish dictionaries (e.g., Saloni & al., 2007). All refer only to objects that theoretically can be counted, but it is not possible to express the meaning of plurality by a construction with such a noun, e.g., **pięć/pięcioro profesorostw*. However, they can occur with numeral forms—of the lexemes *oboje* and *obydwoje* 'both', e.g.:

(15) (a) *Zaproś oboje dziadków.* 'Ask both grandparents.'
(a) *Zaproś oboje profesorostwa.* 'Ask both: the professor and his wife.'

This is a special use of the numeral forms: we do not count sets denoted by the noun, but objects belonging to them.

The second subset of *P1* nouns includes several names of sets of people, but not ordered pairs, e.g., *państwo*⁵ 'ladies and gentlemen', *rodzeństwo* 'siblings'. They share some of the properties of the first subset: it is impossible to use them in the plural sense, e.g., they cannot join with forms of quantifying adjectives, e.g. *każdy* 'each', *żaden* 'neither', *wszystek* 'all' (cf. Zaliznjak & Paducheva, 1974:32). However, they can join with numeral forms that serve to count objects belonging to the set denoted by the noun. We have found, for example, the following examples on the Internet:

⁴ The *P1* nouns with this suffix (also belonging to the second subset), although syntactically plural (they occur with plural forms of adjectives and verbs), have morphological exponents of singular forms: their desinences are the same for the singular of two-number names. Therefore, we have systematic homonymy of forms of nouns with this suffix, e.g. *braterstwo* 1. *N2* 'brotherhood', 2. *P1* 'brother with his wife'.

⁵ There are three lexemes in Polish having the basic form *państwo*. Besides the two *pluralia tantum* discussed in this section, there is a regular two-number lexeme with the meaning 'state; country' (in constructions with numerals: *dwa państwa, pięć państw* etc).

- (16) (a) *Za pomyłkę **troje Państwa** przepraszam.* ‘I apologize to three of you for my mistake.’
 (b) *Miał **czworo rodzeństwa**.* ‘He had four siblings.’

In both cases the set should be understood as containing persons of both sexes.

In the *Grammatical Dictionary of Polish* (Saloni et al., 2007), we decided to describe both those groups as virile *pluralia tantum*, against Zaliznjak’s proposal to describe Russian lexemes of the type *родители, девочки* as belonging to (potentially) two-number defective nouns, having no singular forms (Zaliznjak, 1967:99).

4.3 Additional Rules – Constructions with Masculine Animate (*M1*) Nouns

There is one additional situation when *pięcioro* forms are used: with masculine animate (*M1*) nouns. It is well known that basic numeral forms joining with forms of this gender are different. However in contemporary Polish it is possible to use the following constructions:

- (17) (a) *Na egzaminie było **pięciu** studentów.* ‘There were five students at the exam.’
 (b) *Na egzaminie było **pięcioro** studentów.*

The meaning of sentence (17b) is evidently richer than that of (17a): the experienced competent speaker of Polish says (or understands) that the group of five students was sexually mixed: it contained at least one man and one woman. Sentence (17a) does not include such an element of meaning. It may be understood in two ways: either that there were five male students or that there were five students whose sex is not of our concern. Its meaning can be specified in broader contexts, e.g.:

- (18) (a) *Na egzaminie było **pięciu** studentów i cztery studentki.*
 . ‘There were five male students and four female students at the exam.’
 (b) *Na egzaminie było **pięciu** studentów. I same kobiety.*
 . ‘There were five students at the exam. And only women.’

It is clear that only *M1* nouns that do not contain the semantic element ‘male’ occur in constructions with *pięcioro* forms. Nouns having such semantic element cannot be used with these forms, e.g., **pięcioro chłopców* literally would mean ‘five boys of both sexes’. Generally, in Polish *M1* nouns can refer to persons independently of their sex.

This way of using *pięcioro* forms is correct only with *M1* nouns. There are feminine nouns denoting persons regardless of sex, e.g., *osoba* ‘person’, *istota* ‘being’. However, constructions like **pięcioro osób*, which are sometimes encountered, especially in spoken language, are treated by educated Poles as incorrect, not acceptable.

5 Conclusion

The first meaning of *pięcioro* forms is the same as for other forms corresponding to numbers (in our example: ‘5’). The basic distribution of these forms, contrasted with other forms of the same meaning, is motivated by the category of gender, and therefore they should be included in the same homogeneous lexemes. The full paradigm of the typical numeral *pięć* ‘5’ is the following (for the gender *M1* we do not include only the additional forms used for mixed groups):

	<i>M1</i>	<i>M–1, N2, or F</i>	<i>N1, P1, or P3</i>
Nom	<i>pięciu</i>	<i>pięć</i>	<i>pięcioro</i>
Gen	<i>pięciu</i>		<i>pięcioro</i>
Dat	<i>pięciu</i>		<i>pięcioro</i>

Acc	<i>pięciu</i>	<i>pięć</i>	<i>pięcioro</i>
Inst	<i>pięciu/pięcioma</i>		<i>pięciorgiem</i>
Loc	<i>pięciu</i>		<i>pięciorgu</i>
Voc	<i>pięciu</i>	<i>pięć</i>	<i>pięcioro</i>

In addition to their gender functions they have a special additional meaning: they refer to sexually mixed groups of persons.

Unfortunately, *pięcioro* forms do not belong to those frequently used in Polish. However, they are obligatory with the noun **dziecko** 'child', which both is very frequent and easily occurs with numerals. This noun is the core of a gender class. And this property suffices to regard *pięcioro* forms as a gender variant of cardinal numerals.

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