

## Examining parts in Polish proportional partitives

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**Introduction.** Since the early years of formal semantics a lot of research has been dedicated to the study of quantifiers. Yet, despite many important results certain properties of the class of proportional quantifiers (PQs) have not achieved enough attention so far (with a notable exception of Hackl 2009). In this paper, I investigate the syntactic and semantic properties of different classes of PQs in Polish. Though some quirks in their behavior have been recognized and analyzed (see Przepiórkowski 2006, Dziubała-Szrejbrowska 2016 for a syntactic analysis and Wągiel 2019 for a semantic treatment), they remain surprisingly understudied. The main aim of this paper is to give firmer empirical footing for the study of the expressions in question. The data call for combining degree semantics with a mereotopological approach to nominals.

**Corpus study.** In order to determine the distribution of PQs in Polish, I have conducted a corpus study based on the National Corpus of Polish (NCP). I have examined syntactic environments and collocations of the following expressions: *część*, *częstka* (both ‘part’), *ćwierć*, *ćwiartka* (both ‘quarter’), *pół*, *połowa*, *połówka* (all ‘half’) and *większość* (‘most’). Based on the corpus data, the syntactic properties of different types of Polish PQs are the following. First of all, of all of the examined quantifiers only *ćwierć* and *pół* can and often do co-occur with measure terms and numeral phrases, see (1). On the other hand, morphologically complex PQs derived with the suffix *-k-*, i.e., *częstka*, *ćwiartka* and *połówka*, as well as *część* are incompatible with degree modifiers such as *prawie* (‘almost’), *niemal* (‘nearly’) and *ponad* (‘above’), see (2). Finally, while *część*, *połowa* and *większość* can combine with cumulative predicates such as plurals and mass nouns, *częstka*, *ćwierć*, *ćwiartka*, *pół* and *połówka* cannot, see (3). The constraint does not seem to be a grammatical one since all of the above can appear with pluralia tantum. The results are summarized in Table 1.

- (1) a. ...wiedzą, co znaczy **ćwierć tony** trotylu w rękach amatora.  
they-know what means quarter<sub>1</sub> tonne.GEN TNT.GEN in hands amateur.GEN  
‘...they know what a quarter ton of TNT in the hands of an amateur means.’ NCP
- b. #Wiedzą, co znaczy **ćwiartka tony** trotylu w rękach amatora.  
they-know what means quarter<sub>2</sub> tonne.GEN TNT.GEN in hands amateur.GEN
- (2) a. ...obie miały okulary automobilowe zakrywające **niemal pół** twarzy...  
both had eyeglasses automobile.ADJ covering nearly half<sub>1</sub> face.GEN  
‘...they both had car goggles covering nearly half of the face...’ NCP
- b. #Obie miały okulary automobilowe zakrywające **niemal połówkę** twarzy.  
both had eyeglasses automobile.ADJ covering nearly half<sub>3</sub> face.GEN
- (3) a. ...wywinał tylko ciupagą i **połowa napastników** padła na ziemię.  
he-brandished only axe and half<sub>2</sub> aggressors.GEN fell on ground  
‘...he only brandished an axe and half of the aggressors hit the ground.’ NCP
- b. #Wywinał tylko ciupagą i **pół napastników** padło na ziemię.  
he-brandished only axe and half<sub>1</sub> aggressors.GEN fell on ground

Table 1: Distributional properties of Polish proportional quantifiers

	<i>ćwierć</i> ‘quarter’	<i>pół</i> ‘half’	<i>połowa</i> ‘half’	<i>większość</i> ‘most’	<i>część</i> ‘part’	<i>częstka</i> ‘part’	<i>połówka</i> ‘half’	<i>ćwiartka</i> ‘quarter’
measure terms	✓	✓	*	*	*	*	*	*
degree modifiers	✓	✓	✓	✓	*	*	*	*
cumulative pred.	*	*	✓	✓	✓	*	*	*

**Physical and informational objects.** Another data set concerns nominals that are ambiguous between a physical object sense and an informational object sense such as *book* (e.g., Pustejovsky 1995, Gotham 2017). But first, let us consider Hungarian which allows for optional classifiers (Csirmaz & Dékány 2014). Recently, it



'*évieré*', '*pól*' i '*póttora*' • Pustejovsky (1995) *The Generative Lexicon* • Rett (2014) *The polysemy of measurement* • Schvarcz & Wohlmuth (2020) *An MSSC-approach to Hungarian classifiers* • Wągiel (2019) *Partitives, multipliers and subatomic quantification*