

Nawoja Mikołajczak-Matyja  <https://orcid.org/0000-0003-2282-8960>

*Adam Mickiewicz University in Poznań*

# A Comparative Analysis of Functions of Accidental Binary Oppositions from Different Semantic Levels: Functions of the Word Pairs *chrześcijanin/muzułmanin* and *katolik/protestant* in Sentences from the National Corpus of Polish

## Abstract

The article presents a comparative analysis of two pairs of words regarded as accidental semantic binary oppositions, belonging to different levels of generality: *chrześcijanin* ‘Christian’ and *muzułmanin* ‘Muslim’ (the names of followers of two major religions) and *katolik* ‘Catholic’ and *protestant* ‘Protestant’ (hyponyms of the word *chrześcijanin* as the names of the main denominations within the Christian religion). The analysis sought to identify the functions performed by pairs of words connected by the relation of semantic opposition, co-occurring within a sentence. The analysis covered a set of 538 sentences selected from the balanced sub-corpus of the National Corpus of Polish. In the analysed sentences, it was possible to identify most of the functions from the sets proposed in earlier studies on inherent binary semantic oppositions. The percentage share of most functions is similar for both analysed pairs. The three most common functions are the same; moreover, they have similar or even the same relative frequency. The relations between the denotations of the members of a given pair, shown in sentences with the two most common functions, are also similar for both analysed pairs.

## Keywords

binary semantic opposition, corpus linguistics, names of religions, National Corpus of Polish, semantics, semantic relation

### Abstrakt

W artykule przedstawiono analizę porównawczą dwóch par wyrazów, które mogą być traktowane jako semantyczne binarne opozycje o charakterze akcydentalnym, należące do różnych poziomów ogólności: *chrześcijanin* i *muzułmanin* (nazwy wyznawców dwóch największych religii) oraz *katolik* i *protestant* (hiponimy wyrazu *chrześcijanin* jako nazwy głównych wyznań w religii chrześcijańskiej). Analiza polegała na poszukiwaniu funkcji, jakie pełnią pary wyrazów połączone relacją opozycji semantycznej współwystępujące wewnątrz zdania. Analizą objęto zbiór 538 zdań wyselekcjonowanych ze zrównoważonego podkorpusu Narodowego Korpusu Języka Polskiego. W analizowanych zdaniach zidentyfikowano większość funkcji ze zbiorów zaproponowanych we wcześniejszych badaniach nad inherentnymi binarnymi opozycjami semantycznymi. Procentowy udział większości funkcji jest podobny w obu analizowanych parach. Trzy najczęściej występujące funkcje są takie same, ponadto mają podobną lub nawet identyczną względną częstość. Relacje między denotatami członów danej pary, ukazywane w zdaniach z dwiema najczęstszymi funkcjami, są również podobne dla obu analizowanych par.

### Słowa kluczowe

dwuczłonowa opozycja semantyczna, lingwistyka korpusowa, nazwy religii, Narodowy Korpus Języka Polskiego, relacja semantyczna, semantyka

## 1. Introduction

Corpus linguistic research, which has been developing intensively in recent decades, contributes to maintaining interest in the issue of semantic relations and the semantic structure of language by pointing out new aspects of its analysis. This type of research includes analyses of the functions performed by members of a pair of semantic opposition co-occurring within a sentence. Pairs of words under research are usually strong oppositions established in a given language. Moreover, sets of several dozen pairs are usually analysed. The current work proposes:

- increasing the scope of research on the functions of semantic opposition to the so-called accidental binary oppositions,
- a detailed comparative analysis of the functions of only two pairs but from different levels of generality.

This type of analysis will make it possible to examine the universality of the functions performed by semantic oppositions in sentences, i.e. the independence of these functions of the strength of the opposition and of its place in the semantic hierarchical structure of the language.

## 2. *Chrześcijanin/muzułmanin* and *katolik/protestant* as examples of accidental binary semantic opposition

Two pairs of words – *chrześcijanin/muzułmanin* [‘Christian’/‘Muslim’] and *katolik/protestant* [‘Catholic’/‘Protestant’] – were selected for the study. They belong to different but adjacent levels of generality in the semantic hierarchy. Moreover, they are the names of socially important categories for contemporary users of the Polish language. Thanks to this, not only does each of the four examined words have a high frequency in contemporary Polish, but also words that make up a given pair often co-occur in texts, including within one sentence.

As examples of binary ‘accidental’ semantic oppositions,<sup>1</sup> Cruse (2000) gives the pairs *coffee/tea* (names of popular hot drinks opposed, for instance, in choice questions) and *gas/electricity* (names of the most frequently chosen heat sources), in contrast to ‘inherent’ or ‘logical’ oppositions, such as *long/short* or *life/death* (Cruse 2000: 167). A good example of such accidental pairs are also pairs of names of religious believers. From the standpoint of linguistic theories concerning semantic relations between lexical units, the names of the followers of the major religions, such as *chrześcijanin* [‘Christian’], *muzułmanin* [‘Muslim’], *buddysta* [‘Buddhist’], *hinduista* [‘Hindu’], etc. constitute a non-binary (multi-element) semantic contrast set, similar to the sets of names of, for example, flowers or days of the week (see Lyons 1977; see also Murphy 2003 on complementary non-binary contrast sets). However, if two particular religions are often the subject of a single text or conversation in which the differences, similarities and relations between them are considered, the names of their followers can be treated as an accidental binary opposition.

This is the case with the words *chrześcijanin/muzułmanin* – a pair of names denoting followers of the two most widespread monotheistic religions. The same is the case with the names of followers of two religious denominations: *katolik/protestant*. These two words are names of the main denominations or churches functioning within the Christian religion, whose relations, similarities and differences are also a frequent subject of consideration in texts on religious, historical or social topics. However, the pairs *chrześcijanin/muzułmanin* and *katolik/protestant* represent different levels of generality, because semantically the words *katolik* and *protestant* are hyponyms of the word *chrześcijanin*.

The feature that distinguishes the relation of semantic opposition from other semantic relations is the simultaneous closeness (similarity) and

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<sup>1</sup> Cruse (2000) also uses the term *pragmatic binarity* in the sense of depending on linguistic use.

distance (contrast) in meaning between the elements of the opposition (Cruse 1995; Muehleisen and Isono 2009). The semantic closeness between the members of a binary opposition pair is interpreted by semanticists in terms of, for example, a common archisememe/archilexeme (Mettinger 1994), a (shared) semantic dimension (Muehleisen 1997 in Jones 2002), a set of shared features (in the componential analysis) (Murphy 2003), or a plane of equivalence (Davies 2012). Against this background, the elements of contrast are emphasized, being described in terms of, for example, distant values in some semantic dimension (Mettinger 1994), one feature or feature specification (Murphy 2003), or a plane of difference (Davies 2012).

In the case of accidental oppositions whose members denote important social categories, the semantic similarities and differences are of a complex nature, not limited to simple features and dimensions. The semantic closeness of the words *chrześcijanin* and *muzułmanin* results from elements similar in or common to both denominations, such as: faith in one God, in an immaterial soul created by God for each body and separating from it temporarily after death, in the resurrection of body and soul, the Last Judgement, eternal life, paradise and hell, belief in angels and Satan, recognition of the role of God's messengers and prophets, faith in books of revelation, etc. The elements of contrast, on the other hand, concern differences between the religions, for example, the Christian idea of one God but in three persons (the dogma of the Holy Trinity accepted by most Christian denominations) versus the Muslim idea of the only God who does not take human form; the position of Jesus as the Son of God and his mediator as the central figure of Christianity and the Bible as the holy book versus that of the prophet Muhammad as the central figure of Islam to whom the Koran, the holy book of that religion, was revealed; differences in holidays and rituals, religious symbols and practices, etc. (cf. for example: Kolczyńska 2003: 13–15, 143–147; Benzine 2007; Tincq 2007).

The semantic closeness of the pair of words *katolik/protestant* results from the elements common to Christianity, and thus also to the above-mentioned features of Christianity. On the other hand, the differences in meaning between these words result from the principles introduced by Protestant religions that differ from those of Catholicism, such as recognition of the Bible as the sole source of the truths of faith (the principle of *sola scriptura*), the belief that eternal salvation occurs only through grace (*sola gratia*) and faith (*sola fide*), recognition of only two of the seven sacraments characteristic of Catholicism, non-recognition of the supreme authority of the Pope, as well as numerous differences in church structure and organisation, rites, etc. (see e.g. Kolczyńska 2003: 27, 79–82; Chivot 2007; Mercier 2007). These differences are more specific than the differences between Christianity and Islam.

It can be assumed that at least some of the differences mentioned above are known to the average user of the language to which the names of these denominations belong.

Pairs of names of followers of religions interpreted as binary semantic oppositions can be analysed using methods developed for the purpose of studying such oppositions, including those based on linguistic corpora.

### 3. Corpus research on the functions of binary semantic opposition in sentences

#### 3.1. State of research

In corpus research on binary semantic opposition, which has been conducted since the end of the 20th century, the monograph by Steven Jones (2002) has played a particularly important role. It presents an analysis of 3,000 English sentences extracted from a text corpus of 280 million words, derived from one journal (*The Independent*). In each of these sentences, two words co-occurred, constituting a strong binary opposition, fixed in the language, such as *new/old* or *peace/war*. In total, the study concerned 56 pairs of this type. The result of this analysis was the identification of a set of basic functions (eight main functions and several low-level ones) performed by these pairs in sentences. Such functions are distinguished primarily on the basis of semantic or semantic-pragmatic criteria (e.g. Murphy et al. 2009; Hsu 2015). Most of them are related to specific lexical-syntactic frameworks, but they are not defined by these frameworks (Murphy et al. 2009). Thus, there is no one-to-one mapping between a function and the lexical-grammatical frame in which the pair of words in a given sentence is placed (Jones et al. 2007, 2012).

The existence of functions and their role in texts was confirmed in numerous later studies inspired by Jones' work: on the one hand, in further studies of English corpora, composed of written (Davies 2012, 2013) or spoken (Jones 2006) texts, or texts in language aimed at children (Jones 2007); and on the other, in studies of texts in other languages, including Swedish (Murphy et al. 2009), Japanese (Muehleisen and Isono 2009), Dutch (Lobanova et al. 2010), Serbian (Kostić 2011, 2015), Romanian (Gheltofan 2013), Chinese (Hsu 2015), French (Steffens 2018), classical and modern Arabic (e.g. Hassanein 2018; Hassanein and Mahzari 2021), and Polish (Mikołajczak-Matyja 2021).

Some of the works mentioned above contain critiques and/or modifications of the classification of functions presented in Jones' work. Various corpora of texts have been used in research to extract examples of binary

oppositions. They are often general corpora of a given language, such as the BNC (Jones 2006), the Chinese Gigaword Corpus (Hsu 2015), the Japanese Corpus of the Leeds Collection of Internet Corpora (Muehleisen and Isono 2009) and the Untagged Electronic Corpus of Contemporary Serbian Language (Kostić 2011, 2015).

### 3.2. Functions

The set of functions presented below was developed on the basis of the classification from the monograph by Jones (2002) and suggested modifications of that classification, contained in later works by Jones and in the work of other researchers (Jones and Murphy 2005; Muehleisen and Isono 2009; Murphy et al. 2009; Davies 2012, 2013; Hsu 2015; Hassanein 2018). The functions listed below are briefly characterized and illustrated with examples from the sentences extracted from the National Corpus of Polish (hereafter the NKJP),<sup>2</sup> containing the pair of words *chrześcijanin/muzułmanin* or *katolik/protestant*.

**COORDINATED:** In sentences with this function, the names of the representatives of religions that make up the pair are connected and somehow ‘unified’ (*unified, coordinated* Jones 2002: 37), that is, the meaning of the predicate applies equally to both members of the pair, without differentiating them (but ‘unifying’ them). This means that it refers to the common elements of the meanings of both members of the pair, ignoring the differences between them, by indicating the same actions, events involving representatives of both religions, etc., for example:

- (1) *Ci, którzy go odwiedzają – a są między nimi i **katolicy**, i **protestanci** – próbują go przyprzeć do muru, dyskutują, dziwią się.* (KP: 41)<sup>3</sup>  
 ‘Those who visit him – and there are **Catholics** among them, and **Protestants** – they try to pin him down, discuss and wonder.’<sup>4</sup>
- (2) *Wzięło w niej udział ponad 300 tys. **chrześcijan i muzułmanów**.* (CHM: 68)  
 ‘Over 300,000 **Christians** and **Muslims** took part in it.’

**ANCILLARY:** The members of the pair under analysis (called the ‘A pair’ by Jones 2002) perform such a function in a sentence if they confirm or

<sup>2</sup> NKJP: abbreviation of ‘Narodowy Korpus Języka Polskiego’.

<sup>3</sup> In this and the following examples, the analysed pair of words is bolded and the parts of the sentences that determine the qualification are underlined. In parentheses following the example the letters stand for the pair abbreviation and ordering, and the number after the colon is the sentence number from the set returned by the tool (e.g. KP: 41: sentence number 41 from the set for the *katolik/protestant* ordering).

<sup>4</sup> The Polish examples have been translated into English by the author and Dr John Catlow.

strengthen the contrast between another pair of words (called the ‘B pair’) in the same sentence. For example, in the sentence:

- (3) *Żyd [...] tłumaczył Polakowi-katolikowi i Niemcowi-protestantowi, że nie ma zaufania do luterzańskich kościołów [...].* (KP: 2)  
 ‘A Jew [...] explained to a **Catholic** Pole and a **Protestant** German that he did not trust Lutheran churches [...].’

the B pair is the words *Polak* ‘Pole’ and *Niemiec* ‘German’, combining with the words *katolik* and *protestant*, respectively; and in the sentence

- (4) *Tak jak chrześcijanie do Ziemi Świętej, a muzułmanie do Mekki, tak Hindusi pielgrzymują do swoich świętych miast [...].* (CHM: 12)  
 ‘Like **Christians** to the Holy Land and **Muslims** to Mecca, Hindus make pilgrimages to their holy cities [...].’

the B pair consists of the names of places: *Ziemia Święta* ‘Holy Land’ and *Mekka* ‘Mecca’. It can be said that the use of the second (B) pair of contrasting expressions in the sentence results from the reference to certain facts that differentiate followers of the two religions belonging to the analysed (A) pair. For example, the first example reflects the stronger connection (historical and numerical) of Poles with Catholicism, and Germans with Protestantism.

These two functions – COORDINATED and ANCILLARY – were considered in the monograph by Jones (2002) to be the most important, because the analysis showed that they were the most frequent (Jones 2002: 41), and their dominant role (despite the criticism contained, for example, in the works of Murphy 2003; Murphy et al. 2009; Davies 2012, 2013; Kostić 2015; Steffens 2018) has also been confirmed in subsequent works on the subject (Jones 2006, 2007; Muehleisen and Isono 2009; Murphy et al. 2009; Hsu 2015; Kostić 2015; Hassanein 2018).

COMPARATIVE: The members of the pair are explicitly compared with each other, so there are indicated, for example, differences in the size of groups of representatives of the two faiths, differences in the intensity of a feature or in the frequency of activities among the two groups, for example:

- (5) *Émile Durkheim w Le Suicide zauważa, że protestanci popełniają samobójstwa częściej niż katolicy [...].* (PK: 77)  
 ‘Émile Durkheim in “Le Suicide” notes that **Protestants** commit suicide more often **than Catholics** [...].’
- (6) *Muzułmanie są moim zdaniem bardziej niż chrześcijanie zżyci z Bogiem [...].* (MCH: 33)  
 ‘In my opinion, **Muslims** are closer to God than **Christians** [...].’

NEGATED: In such sentences the name of one denomination is negated, which causes a stronger emphasis on some feature of the other or on some fact related to the other religion, for example:

- (7) [...] czy Pani homoseksualizm wynika z faktu, iż Pani rodzice nie są katolikami, tylko protestantami? (KP: 53)  
 ‘[...] is your homosexuality due to the fact that your parents are not **Catholics** but **Protestants**?’
- (8) Bóg dał mu szansę: urodził się w Onitshsie, wśród chrześcijan, a nie muzułmanów, jak tutaj. (CHM: 104)  
 ‘God gave him a chance: he was born in Onitsha, among **Christians**, not **Muslims**, like here.’

DISTINGUISHED: In sentences of this type, the distinction between the members of the pair is expressed explicitly and emphasized by the words *difference, distinguish, division, divide, distance* or similar, for example:

- (9) W krajach podzielonych religijnie na katolików i protestantów [...] komunistom szło łatwiej. (KP: 5)  
 ‘In countries religiously divided into Catholics and Protestants [...] it was easier for the communists.’
- (10) Odróżnianie ludzi ze względu na to, czy są [...] chrześcijanami czy muzułmanami [...] okazuje się z punktu widzenia absolutnego wymiaru rzeczywistości – względne. (CHM: 43)  
 ‘Differentiating people on the basis of whether they are [...] Christians or Muslims [...] turns out to be relative from the point of view of the absolute dimension of reality.’

TRANSITIONAL: Sentences of this type express a change, understood as a transition from one member of the pair to the other, for example:

- (11) [...] Kościół w Polsce nie musi się szarpać z tymi zachodnimi nowinkarzami, co chcieliby przerobić katolików na protestantów. (KP: 156)  
 ‘[...] the Church in Poland does not have to struggle with those Western innovators who would like to convert Catholics into Protestants.’

Functions: COMPARATIVE, NEGATED, DISTINGUISHED and TRANSITIONAL also belong to the basic set of functions described in the monograph by Jones (2002). They were also used in later works,<sup>5</sup> but it has been suggested that the TRANSITIONAL function should be extended to cases where the transition from one member of the pair to the other is spatial or temporal (Hassanein 2018).

<sup>5</sup> Davies (2012, 2013) proposed changing the name of Jones’ DISTINGUISHED function to EXPLICIT, in the sense of drawing explicit attention to the contrast between members of the oppositional pair.



ASSOCIATION: In sentences with such a function, the pair is used in a way that suggests joint actions of representatives of both faiths, as well as different types of equal and/or mutual connections and relations between them. Terms such as *integration*, *understanding*, *connection*, *coexistence*, etc. (*between*) *X and Y* are used, for example:

- (12) [...] *Ruch Pokojowy Irlandii Płn. [...] dopiero później rozwinął się w dużą instytucję mającą na celu integrację działań **katolików i protestantów** na rzecz zaprzestania przemocy.* (KP: 164)  
 ‘[...] the Northern Ireland Peace Movement [...] only later developed into a large institution aimed at integrating **Catholics** and **Protestants**’ actions to stop violence.’
- (13) *Syria wydaje się być wyjątkowym przykładem pokojowego współzycia **chrześcijan i muzułmanów**.* (CHM: 83)  
 ‘Syria seems to be a unique example of a peaceful coexistence between **Christians** and **Muslims**.’

CONFLICT: This function is somewhat opposed to the previous one. The names of the representatives of religions are used in a way that suggests negative mutual relations between them or describes negative, unpleasant mutual actions. Thus, there appear expressions such as *conflict*, *fight*, *dispute*, *battle*, *war*, etc. *between X and Y*, for example:

- (14) *Od 1972 roku prowincja rozdzielana **krwawym konfliktem protestantów i katolików** [...] znajduje się pod bezpośrednim zarządkiem Londynu.* (PK: 69)  
 ‘Since 1972 the province torn by the bloody conflict of **Protestants** and **Catholics** [...] has been under the direct rule of London.’
- (15) *W walkach między **chrześcijanami i muzułmanami** na wyspie Ambon [...] brały udział oddziały pospolitego ruszenia złożone z kilkunastoletnich chłopców.* (CHM: 105)  
 ‘In the battles between **Christians** and **Muslims** on the island of Ambon [...], soldiers of the mass movement took part, consisting of teenage boys.’

The ASSOCIATION and CONFLICT functions also feature in Jones’ monograph, but he treated them as additional or “low-level” functions (outside the set of eight main functions), because they appeared in the material he studied much less frequently than the main functions (Jones 2002: 95–102).

DISJUNCTIVE: Such sentences suggest that a given fact or feature is related to only one member of the pair, that is, they contain a choice between either one member of the pair or the other:

- (16) *Nie wiadomo, kto napadł na ich wioski – czarni **chrześcijanie czy muzułmanie**.* (CHM: 30)  
 ‘It is not known who attacked their villages – black **Christians** or **Muslims**.’

The DISJUNCTIVE function was included in the set in later works by Jones as a function called INTERROGATIVE, appearing in questions that suggest disjunction (*X or Y?*) (e.g. Jones 2006). In the works of other authors it was emphasized that the function of choosing between members of a pair need not be limited to interrogative sentences or forms, and it was proposed that the name be changed to DISJUNCTIVE (Muehleisen and Isono 2009) or BINARIZED (Davies 2012, 2013).

REPLACIVE: This function appears in sentences indicating the possibility of replacing representatives of one religion by representatives of the other, with the pair used in expressions such as *X replaces Y*, *X for Y*, etc., for example:

- (17) *Spowodowało to, że **muzułmanów** zaczęli w mieście zastępować **chrześcijanie**, jednak był to długotrwały proces trwający jeszcze w XIV wieku.* (MCH: 36)  
 ‘As a result, **Muslims** in the city began to be replaced by **Christians**, but it was a long process that continued in the fourteenth century.’

The REPLACIVE function was proposed in the works of Davies (2012, 2013) and Hassanein (2018).

CONCESSIVE: In sentences with such a function, the members of the pair appear in separate clauses connected by a condition, permission or effect relation, with the use of conjunctions such as *if*, *although*, *however*, etc., for example:

- (18) *Bardzo dobrze, że Polska się solidaryzuje z Anglią, bo chociaż to **protestanci**, to bliżej [...] **katolikom** do nich niż do islamu [...].* (PK: 87)  
 ‘It is very good that Poland stands in solidarity with England, because although they are **Protestants**, [...] **Catholics** are closer to them than to Islam [...].’
- (19) *[...] choć bez trudu daloby się udowodnić, że fundamentalistyczne ciągoty występują też i wśród **chrześcijan**, i wśród Żydów, a mimo to to **muzułmanie** są traktowani podejrzliwie.* (CHM: 70)  
 ‘[...] although it would be easy to prove that fundamentalist tendencies also exist among **Christians** and Jews, yet it is the **Muslims** who are treated with suspicion.’

The CONCESSIVE function follows from suggestions made by Davies and Hassanein: the CONCESSIVE function proposed by Davies (2012, 2013)<sup>6</sup> and the SUB-ORDINATED function proposed by Hassanein (2018).

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<sup>6</sup> According to Davies, in sentences with such a function, a contrast is suggested between two circumstances, one of which (expressed in the main clause) is surprising in light of the other (expressed in the subordinate clause) (Davies 2012, 2013).

## 4. Aim of the study and material

The aim of this study is to answer two questions:

(i) what functions are performed in sentences by the accidental binary oppositions *chrześcijanin/muzułmanin* and *katolik/protestant*? It is hypothesized that the answer to this question will indicate the degree of similarity of accidental semantic oppositions to inherent or systemic semantic oppositions;

(ii) what are the similarities and differences between the percentage distributions of the functions for the two pairs? It is hypothesized that the answer will reveal the degree of similarity in the structure of two different (but adjacent) levels of the semantic hierarchy.

In addition, contexts typical of the most frequent functions will be presented, with an indication of the similarities and possible differences between the two pairs.

The research material consisted of sentences from the so-called balanced sub-corpus of the National Corpus of Polish, consisting of 300 million segments (about 250 million words), which is comparable to that used in Jones (2002). When developing the NKJP, it was assumed that in a balanced sub-corpus, no text type (i.e. newspapers, fiction, non-fiction books, other written texts, spoken texts, and online texts) covers more than half of the resources, hence the most strongly represented press texts constitute 50% of the sub-corpus. 80% of the texts in the sub-corpus were created after 1990, 15% in the period 1945–1990, and only 5% (only literary texts) before 1945 (Górski and Łaziński 2012).

The Poliqarp search engine was used to retrieve sentences. This tool allows one to find sentences containing two specific words (the sub-corpus is grammatically tagged). With the “balanced NKJP sub-corpus” option selected, the following formula was entered in the “query” box:

[base = chrześcijanin] ([ ]?) \* [base = muzułmanin] within s

and similarly with the reverse ordering *muzułmanin/chrześcijanin*, with the pair *katolik/protestant*, and with the reverse ordering *protestant/katolik*. For both orderings, the *chrześcijanin/muzułmanin* pair was analysed with a total of 226 example sentences, and the *katolik/protestant* pair with 312 sentences.<sup>7</sup> The analysis of sentences containing pairs of names of representatives of religions resulted in assigning to them functions from the set presented in Section 3.2.

<sup>7</sup> These sets exclude 16 examples (for both pairs in total) returned by the tool, because they contained the members of the pair in a different order from that entered in the formula, or repeated a sentence from a previous example (e.g. as a quote).

## 5. Results of analysis

First, the general numerical results will be presented, and then contexts typical of the two most frequent functions will be briefly characterized.

### 5.1. Distribution of functions

Table 1 contains the results of the analysis in the form of numbers of occurrences of particular functions and the percentage shares for the pair *chrześcijanin/muzułmanin*, hereinafter CH/M (N = 226) and for the pair *katolik/protestant*, hereinafter K/P (N = 312).

Table 1. Results: numbers of occurrences and percentage share of functions for *chrześcijanin/muzułmanin* (CH/M) pair and *katolik/protestant* (K/P) pair (own data)

Function	CH/M 100% = 226		K/P 100% = 312	
	Number of occurrences	Percentage	Number of occurrences	Percentage
COORDINATED	56	24.8	85	27.2
ANCILLARY	47	20.8	65	20.8
ASSOCIATION	31	13.7	44	14.1
CONFLICT	24	10.6	24	7.7
COMPARATIVE	10	4.4	25	8.0
NEGATED	10	4.4	5	1.6
DISTINGUISHED	9	4.0	20	6.4
DISJUNCTIVE	4	1.8	1	0.3
REPLACIVE	2	0.9	0	0.0
CONCESSIVE	1	0.4	2	0.6
TRANSITIONAL	0	0.0	6	1.9
<i>Unclassified</i>	43	19.0	50	16.0

The sum of the percentages for each of the pairs (see Table 1) exceeds 100, because in some sentences (about 20) the tested pair of words was used in more than one of the above-mentioned functions.<sup>8</sup> One of the points of criticism formulated by Jones' successors was that Jones did not take into account such double classification, especially in sentences featuring his ANCILLARY

<sup>8</sup> 100% means the sum of the analysed sentences (and not the sum of the extracted functions), i.e. 226 for *chrześcijanin/muzułmanin* and 312 for *katolik/protestant*. This method of calculation better illustrates the share of individual functions in the studied corpus.

function (Murphy et al. 2009; Davies 2013). An example from the material analysed in this work is the sentence:

- (20) *Bóg dał mu szansę: urodził się w Onitshsie, wśród **chrześcijan**, a nie **muzułmanów**, jak tutaj.* (CHM: 104)  
 ‘God gave him a chance: he was born in Onitshsa, among **Christians**, not **Muslims** as here.’

classified as containing two functions: ANCILLARY (with *w Onitshsie/tutaj* ‘in Onitshsa’/‘here’ as the B pair) and NEGATED (*wśród chrześcijan, a nie muzułmanów* ‘among Christians not Muslims’).

The data in Table 1 show the high similarity of the ranking and the share of most of the individual functions for both pairs.

The most frequent functions, with ranks I–III, were the same for both pairs: COORDINATED (slightly more common for the K/P pair), ANCILLARY (identical percentages in the sets for both pairs) and ASSOCIATION (almost identical frequency for both pairs). As a result, these three functions together account for a very similar share of both sets: 59.3% of the set for the CH/M pair and 62.1% for the K/P pair.

Another function, CONFLICT, obtained rank IV for the CH/M pair and V for K/P, while the COMPARATIVE function took rank IV for the K/P pair and V for CH/M. There are differences in the shares of these functions in the analysed sets of sentences: CONFLICT accounts for a greater share for the CH/M pair, and COMPARATIVE for the K/P pair.

In turn, the DISTINGUISHED function, although having rank VI for both pairs, accounts for a slightly larger share in the set of sentences for the K/P pair. The NEGATED function is relatively weaker for the K/P pair, with a lower rank (VII) than for the CH/M pair (rank V, ex aequo with the COMPARATIVE). The other functions rarely appear in the sentences. The DISJUNCTIVE function is somewhat more specific to the CH/M pair. It is notable that there are no sentences with the TRANSITIONAL function for the CH/M pair, and no REPLACIVE function for the K/P pair.<sup>9</sup>

## 5.2. The most frequent functions – characteristics of use

Below, (groups of) contexts typical of the two most frequent functions in the analysed material will be briefly characterized, with a comparison of the two pairs.

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<sup>9</sup> The set of functions used in this work does not include two of the set of eight main functions from Jones (2002): the EXTREME function (both members of the pair are connected with terms of the type *too, very* [Jones 2002: 91–93]) and IDIOMATIC (the oppositional pair is part of an idiomatic expression [Jones 2002: 93–94]). Such functions were not found in the material analysed in the present work.

### 5.2.1. COORDINATED

Sentences with this function have been divided into several thematic groups to indicate in which contexts both members of a given pair are 'unified' (that is, what the sentences are about), and therefore what common features of the representatives of two religions are indicated in linguistic use.

**The same elements of faith** are often mentioned. Examples:

CH/M: *wiara w Boga* 'faith in God', *Bóg jako ojciec* 'God as a father', *koźnienie judaistyczne* 'Judaic roots', *inspirowanie się dziełami filozofów greckich* 'inspiration from the works of Greek philosophers', *rola właściwego ȳycia, etyki i sprawiedliwości* 'role of proper life, ethics and justice', *dbanie o dobro innych* 'caring for the welfare of others', *współczucie dla innych* 'compassion for others', *Matka Boska* 'the Mother of God', *Mojżesz* 'Moses', *nadzieja na ȳycie wieczne* 'hope for eternal life', *podobna postawa wobec krytyki ze strony niewierzących* 'similar attitude towards criticism from unbelievers'.

K/P: *wiara w tego samego Boga* 'belief in the same God', *wiara w rajski ogród* 'faith in the Garden of Paradise', *wiara w ȳycie po śmierci* 'faith in life after death', *wiara w śmierć i zmartwychwstanie Chrystusa* 'faith in the death and resurrection of Christ', *grzech* 'sin', *Biblia, Nowy i Stary Testament* 'the Bible, the New and Old Testament'.

For the K/P pair, a few sentences were also found indicating Christianity as the superior element of the two denominations (e.g. *katolik, protestant i prawosławny odnajdą się w chrześcijaństwie* 'Catholic, Protestant and Orthodox believers will find themselves in Christianity') or emphasizing the lack of belonging to either of the two denominations: *ani protestant, ani katolik* 'neither a Protestant nor a Catholic'.

This subject is addressed more specifically in sets of sentences dealing with the issue of **religious practices and rituals**, common to both members of a given pair. Examples:

CH/M: *modlitwa* 'prayer'

K/P: *modlitwa* 'prayer', *msza ekumeniczna* 'ecumenical mass', *taki sam kalendarz liturgiczny* 'the same liturgical calendar', *Wielki Tydzień* 'Holy Week', *Wielki Piątek* 'Good Friday', *Święto zmartwychwstania – Wielkanoc* 'Feast of the Resurrection – Easter', *święto Pokrowy nieobchodzone przez katolików ani przez protestantów* 'Feast of Pokrov not celebrated by Catholics or Protestants'.

The next group of sentences concerns **places** important for both members of the pair or **areas** inhabited by them. Examples:

CH/M: important common places: *Jerozolima* 'Jerusalem', *Brama Jafska* 'the Jaffa Gate', *Ziemia Święta* 'the Holy Land', *Góra Synaj* 'Mount Sinai', *Góra Adama* 'Mount Adam'; common places of living: *Izrael* 'Israel', *Egipt* 'Egypt', *Mumbaj* 'Mumbai', *Shajara* 'Shajara'.

K/P: common places of living: *Prusy Fryderyka Wielkiego* 'Frederick the Great's Prussia', *Kociewie* 'Kociewie', *Ulster* 'Ulster', *Stare Panewniki* 'Stare Panewniki', *klasztory służące w sensie ekumenicznym wszystkim chrześcijanom* 'monasteries serving in the ecumenical sense all Christians', etc.

The analysed sentences also include the topic of **the persecution and death** of representatives of both members of a given pair. Examples:

CH/M: *zabijani* 'killed', *rabowani* 'robbed', *mordowani przez bandytów* 'murdered by bandits', *przez wahabitów* 'by Wahhabis', *przez rycerzy* 'by knights', *przez siły natury* 'by the forces of nature', *wyrzuceni poza nawias społeczeństwa* 'thrown outside the boundaries of society', there may be no place for them in some country, e.g. *w Izraelu* 'in Israel', *w kraju hinduistycznym* 'in a Hindu country'.

K/P: *giną* 'die', *są zabijani* 'are killed', *mordowani* 'are murdered' *w Indiach* 'in India', *w krajach muzułmańskich* 'in Muslim countries', *w wojnach religijnych* 'in religious wars', *w konfliktach* 'in conflicts', *Krwawa Niedziela* 'Bloody Sunday' (in Belfast).

In the analysed set there are also sentences indicating the existence of a **negative attitude towards** representatives of both of a given pair of religions. Examples:

CH/M: *oskarża się ich o coś* 'are accused of something', *wpaja się nienawiść do nich* 'hatred towards them is instilled in people'.

K/P: may be treated *z niechęcią i podejrzliwością* 'with reluctance and suspicion', *nie pasują do obrazu jakiejś grupy* 'they do not fit the image of a group', *wyklucza się ich ze wspólnoty* 'they are excluded from the community', etc. Only in the case of the K/P pair do the contexts express a **positive assessment**: *ludzie wybitni* 'outstanding people' and *ludzie dobrej woli* 'people of goodwill'.

The last thematic set consists of sentences concerning **the same activities carried out by representatives of both faiths**. Examples:

CH/M: *zjeżdżają się w te same miejsca (np. do Asyżu)* 'go to the same places (e.g. to Assisi)', *biorą udział w tych samych zdarzeniach* 'take part in the same events', *płaczą po tych samych osobach (Jan Paweł II)* 'mourn the same people (John Paul II)'.

K/P: *chodzą do tych samych szkół* 'go to the same schools', *uczestniczą w tych samych wydarzeniach np. w Taizé* 'participate in the same events e.g. in Taizé', *odwiedzają papieża* 'visit the Pope', *należą do tych samych organizacji np. AA* 'belong to the same organizations e.g. AA', *bronią życia nienarodzonego* 'defend the unborn life', *troszczą się o kobiety* 'care for women', *fundują witraże* 'fund stained glass windows', *skarżą się na telewizję* 'complain about television'.

### 5.2.2. ANCILLARY

Both pairs co-occur in the analysed sentences with other strong opposition pairs established in the language (examples include for CH/M: *ja/oni* ‘me’/‘them’, *północ/południe* ‘north’/‘south’, *napastnik/ofiara* ‘attacker’/‘victim’; for K/P: *prawy/lewy* ‘right’/‘left’, *piątek/niedziela* ‘Friday’/‘Sunday’, *zdrada/wierność* ‘betrayal’/‘faithfulness’), as well as with pairs whose oppositional power is strengthened by combination with the CH/M pair (e.g. *prześadować/traktować równorzędnie* ‘to persecute’/‘to treat equally’) or with the K/P pair (e.g. *wsparcie dla/sól w oku dla* ‘support for’/‘a thorn in someone’s flesh’). Regardless of their strength, some of these co-occurring pairs (called B pairs; see Section 3.2) can be grouped in terms of meaning. For example, a group of **names of countries, places, nationalities or ethnic groups** is clearly distinguishable. For the CH/M opposition, examples include the following pairs: *latynoski/azjatycki* ‘Latino’/‘Asian’, *Ziemia święta/Mekka* ‘Holy Land’/‘Mecca’, *Grek/Turek* ‘Greek’/‘Turk’; *plemię Bero/plemiona Hausa i Fulani* ‘Bero tribe’/‘Hausa and Fulani tribes’; and for the K/P: *Polak/Niemiec* ‘Pole’/‘German’, *latynosczy/amerykańscy* ‘Latin’/‘American’, *angielski/francuski* ‘English’/‘French’, *Europa/Ameryka* ‘Europe’/‘America’, *Irlandia/Anglia* ‘Ireland’/‘England’, *Bawaria i Nadrenia/Niemcy północne* ‘Bavaria and Rhineland’/‘North Germany’. For both analysed oppositions, **the names of organisations or positions** also appear as B pairs (e.g. for CH/M: *prezydent/premier* ‘president’/‘prime minister’; for K/P: *republikanie/demokraci* ‘Republicans’/‘Democrats’, *Celtic/Rangers* ‘Celtic’/‘Rangers’), and for the K/P opposition, this group is extended by **the names and surnames of people** presented, respectively, as Catholics and Protestants, e.g. *Polak z KUL/student z Adelaide* ‘a Pole from the Catholic University of Lublin’/‘a student from Adelaide’, *Juliusz Heinzl/Edward Herbst* ‘Juliusz Heinzl’/‘Edward Herbst’, *Gerry Adams/Ian Paisley* ‘Gerry Adams’/‘Ian Paisley’.

Several B pairs have meanings directly related to **religion or rituals**. Examples include, for the CH/M opposition, *żyd/buddysta* ‘Jew’/‘Buddhist’, *maronita/sunnita* ‘Maronite’/‘Sunni’, and for K/P, *księgi deuterokanoniczne/apokryfy* ‘deuterocanonical’/‘apocryphal books’, *modlitwy/hymny* ‘prayers’/‘hymns’; as well as complex expressions such as *dawać wieprzowinie poczesne miejsce w diecie/eliminować wieprzowinę z jadłospisu* ‘to give pork a prominent place in the diet’/‘eliminate pork from the menu’ (for CH/M) or *obchodzić imieniny/obchodzić urodziny* ‘to celebrate a name day’/‘celebrate a birthday’ (for K/P).

The sets of sentences also contain B pairs directly related to **negative activities**, such as the aforementioned pairs *prześadować/traktować równorzędnie* ‘to persecute’/‘to treat equally’ (CH/M) and *wsparcie dla/sól w oku dla* ‘support for’/‘a thorn in someone’s flesh’ (K/P), or *napastnicy/*



*ofiary (zamieszek)* ‘attackers’/‘victims (of riots)’ for CH/M and *aresztować/napadać* ‘to arrest’/‘to attack’ for K/P.

However, only the *katolik/protestant* opposition coexists in sentences with several B pairs constituting **names of features**, for example: *kolektywistyczni/indywidualiści* ‘collectivists’/‘individualists’, *antynarodowi/kolektywistyczni* ‘anti-national’/‘collectivists’, *wierność/zdrada* ‘faithfulness’/‘betrayal’, *umieć kochać/umieć pracować* ‘know how to love’/‘know how to work’.

## 6. Discussion

In the analysed sentences, it was possible to identify most of the functions from the set proposed by Jones (2002). Moreover, as was the case in Jones’ results, COORDINATED and ANCILLARY turned out to be the most common functions – for both pairs (see Sections 3.2 and 5.1).

The functions performed by the word pairs *chrześcijanin/muzułmanin* and *katolik/protestant* turned out to be similar. The three most common functions are the same for both pairs; moreover, they have similar or even identical frequencies (percentages). Thus, when sentences are built with these pairs of words, they are used in a very similar way: most often the members of a given pair are coordinated (unified); they also often support the contrast of some other pairs of words or expressions; and finally, relationships in which pair members are equal participants are often indicated.

Slight discrepancies in the distribution of functions may reflect differences in the contrast between members of one pair versus members of the other. There is a stronger need to explicitly differentiate (DISTINGUISHED function) and to compare in detail (COMPARATIVE function) the words *katolik* and *protestant*, which are more similar in meaning than the members of the *chrześcijanin/muzułmanin* pair. On the other hand, the names *chrześcijanin* and *muzułmanin* are more often used in a way that suggests negative relations between them or describes negative, unpleasant mutual actions (CONFLICT function), and also, more often the features and actions of representatives of one religion from this pair are emphasized by negating the name of a representative of the other religion (NEGATED function) or by indicating the need to choose one religion (DISJUNCTIVE function). Moreover, although in a few sentences it is suggested that, under some circumstances, the Christian is replaced by the Muslim or vice versa (REPLACIVE function), there are no sentences suggesting a change of religion from Christianity to Islam or vice versa (TRANSITIONAL function), unlike in the case of the *katolik/protestant* pair.

The image of the relationship between the representatives of two religions shown in the sentences with the two most frequent functions is also similar for both analysed pairs. Contexts indicating the 'coordination and unification' of representatives of two religions are similar for both pairs: places are mentioned, as well as issues of faith, persecution and death, some religious practices, rites and activities, as being the same for the members of a given pair. There are only certain differences: on the one hand, rituals, practices and activities are mentioned more often and with more detail in relation to the K/P pair, while on the other, common elements of faith are emphasized more often in relation to Christians and Muslims. The contrasted expressions (B pairs) accompanying both analysed pairs also belong to similar thematic groups: both pairs are accompanied by contrasted geographic, ethnic and political names, and expressions directly related to religion and to negative activities. The slight differences found in the sentences with the ANCILLARY function can be regarded as reflecting more detailed knowledge about the K/P pair: only this pair is accompanied by B pairs consisting of people's surnames and names of features.

## 7. Conclusions

To sum up, accidental binary oppositions are treated in sentences similarly to the inherent binary oppositions established in language.

Moreover, the functions performed by both analysed pairs *chrześcijanin/muzułmanin* and *katolik/protestant* are similar, despite the fact that they represent different levels of the semantic structure of the language (the members of one pair are hyponyms of one of the members of the other pair). However, the analysis of functions turns out to be 'sensitive' to some minor differences between the two pairs.

Only two pairs of words belonging to the same semantic field were examined, so the scope of the conclusions is limited. In order to expand it, it would be necessary to find pairs of semantic oppositions (including oppositions from sets with more than two elements) from other semantic domains that belong to different levels of generality in these domains. These could be, for example, pairs of plant or animal names.

It is also worth mentioning that research on the use of names of followers of religions in acts of oral or written communication is important in view of the role of religion in the contemporary world, the conflicts that arise between representatives of different religions, and the attempts made to initiate dialogue between them. So, in the present work, it has been proposed to expand this research using modern techniques for the semantic analysis of binary oppositions, conducted on the basis of linguistic corpora.

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Nawoja Mikołajczak-Matyja  
Zakład Badań Psycholingwistycznych i Międzykulturowych nad Leksyką  
i Dyskursem  
Wydział Etnolingwistyki  
Uniwersytet Adama Mickiewicza w Poznaniu  
al. Niepodległości 4  
61-874 Poznań  
Poland  
nawomiko(at)amu.edu.pl