Alireza Mahmoodi ⓘD https://orcid.org/0009-0001-1654-1018
Allameh Tabataba'i University
e-mail: alirezamahmoodi165@gmail.com

Bi-uniqueness violation in Old and Modern English personal pronouns: How and by which pronouns?

Naruszenie podwójnej unikalności w zaimkach osobowych języka angielskiego staroangielskiego i współczesnego angielskiego: w jaki sposób i przez które zaimki?

Abstract

The aim of this study is to investigate and check the naturalness and markedness of Old and Modern English personal pronouns through the bi-uniqueness parameter, which is one of the parameters of natural morphology theory. The results showed that these two languages did not violate bi-uniqueness in first person pronouns, but in second and third person, violations are observed. In Modern English, the pronouns *you* and *it* and in Old English, the pronouns *þē*, *inc*, *ēow*, *hī*, *hēo*, *him*, *hit* and *his* violated bi-uniqueness and are unnatural and marked. It has also been observed that Old English violated bi-uniqueness more than Modern English.

Keywords: Old English, Modern English, bi-uniqueness, natural morphology, markedness theory, personal pronouns

Streszczenie

Celem niniejszego artykułu jest zbadanie i ocena stopnia naturalności oraz nacechowania zaimków osobowych staroangielskich i we współczesnym języku angielskim poprzez parametr podwójnej unikalności – jeden

z parametrów teorii morfologii naturalnej. Wyniki wykazały, że oba języki nie naruszają zasady podwójnej unikalności w zaimkach osobowych pierwszej osoby, natomiast w zaimkach drugiej i trzeciej osobie naruszenia zaobserwowano. We współczesnym języku angielskim zasadę tę naruszyły zaimki *you* i *it*, a w staroangielskim zaimki – *þē*, *ic*, *ēow*, *hī*, *hēo*, *him*, *hit* oraz *his*. Formy te są nienaturalne i nacechowane. Zaobserwowano również, że język staroangielski narusza zasadę podwójnej unikalności częściej niż współczesny angielski.

Słowa kluczowe: język staroangielski, współczesny język angielski, podwójna unikalność, morfologia naturalna, teoria nacechowania, zaimki osobowe

Introduction

Bi-uniqueness is a parameter of natural morphology to examine the naturalness/markedness of morphological elements, stating that there is a one-to-one relationship between the form of a word and its meaning.

English is a Germanic language belonging to the Indo-European language family. Old English, the language spoken between 450 and 1066 CE, is morphologically different from Modern English, having case systems, grammatical gender, etc. (Fromkin, Rodman, Hymes, 2017; Yule, 2020; 2023).

According to the previous sources investigating Old English, there are many differences between Old and Modern English in personal pronouns. This article tries to investigate the personal pronouns of these two languages through the parameter bi-uniqueness to observe which pronouns are unnatural, violating this parameter. As unnatural elements are marked, the present study can also examine the markedness of these elements.

Background

Natural morphology and markedness theory

According to Stampe (1973), Donegan and Stampe (1979) and Dressler and Kilani-Schoch (2016), natural morphology emerged by the end of the 1970s as a functional theory in the continuation of natural phonology. In this approach, naturalness is a theoretical principle of the evaluation of linguistic facts and of accounting for morphological asymmetries or preferences, which is similar to markedness theory.

Markedness theory assumes that in the languages of the world, there are certain elements that are more basic or natural than others. These natural or basic elements are referred to as unmarked, and the others are named marked. For example, in the pair phoneme /p, b/, /p/ is unmarked for the feature [-voice], but /b/ is marked for the feature [+voice] (Zhang, Tian, 2015).

The theory was proposed by Nikolai Sergeyevich Trubetzkoy (1939) to refer to relations between elements of a phonological class (Rice, 2007: 79). Markedness has a very long history in phonological theory (de Lacy, 2006:1).

In many sources, such as Haspelmath (2006), Andersen (2008) and Dressler and Kilani-Schoch (2016), naturalness and markedness are interconnected, which means that less natural/unnatural items are marked, and natural items are unmarked.

Rice (2007) divided the characteristics of markedness in two sets shown in table 1.

Tab. 1. Markedness terms

Marked	Unmarked
(a) less natural	more natural
more complex	simpler
more specific	more general
less common	more common
unexpected	expected
not basic	basic
less stable	stable
appear in few grammars	appear in more grammars
later in acquisition	earlier in acquisition
early loss in language deficit	late lost in language deficit
implies unmarked feature	implied by marked feature
harder to articulate	easier to articulate
perceptually more salient	perceptually less salient
smaller phonetic space	larger phonetic space
(b) subject to neutralization	result of neutralization
unlikely to be epenthetic	likely to be epenthetic
trigger of assimilation	target of assimilation
remains in coalescence	lost in coalescence
retained in deletion	lost in deletion

Source: Rice, 2007: 80.

According to this table, we can observe the markedness terms less natural (marked) vs more natural (marked) According to Spencer (1991: 224), Natural Morphologists assume something like Jakobson's (1968) approach to universals of language, in which the most natural, or least 'marked', phenomena are the most universal (and will tend to be the most widespread in languages of the world), so it can also be concluded that both markedness and naturalness are interconnected.

Bi-uniqueness

There are various parameters of natural morphology to examine naturalness, such as iconicity, indexicality, transparency, bi-uniqueness, etc. Bi-uniqueness states that one and the same form always has the same meaning and vice versa (Haghbin, 2000). Bailey (2007) also stated that the uniformity and transparency principle is a biuniqueness principle that favours inflectional systems which are structured according to the formula one function-one form. Allomorphy can violate bi-uniqueness, having a one-to-many relation between the same meaning and different forms; for example, in German plural noun systems, it can be observed. For instance, in German, the plural suffixes *-er* and *-e* are used in the words *Kind-er* (*Children*) and *Jahr-e* (*years*). Syncretism also violates

bi-uniqueness. For instance, the past tense of the verb *cut* is *cut*, which is the same as the present tense, and it violates bi-uniqueness because there is no one form-one meaning relationship. According to Ahmadi and Rahimian (2025), Bi-uniqueness does not allow for synonymy, homonymy, and polysemy. For example, whenever two words are synonyms, they violate bi-uniqueness.

Literature review

Azar and Hagen (2014), Murphy (2015), and Murphy, Smalzer and Chapple (2017) explained and illustrated Modern English personal pronouns, but they did not investigate them through bi-uniqueness or the other parameters of natural morphology, and they also did not compare these pronouns with the pronouns of Old English.

Hogg (1992), Quirk and Wrenn (1994) and Hogg (2002) showed Old English personal pronouns. Their data showed violations in bi-uniqueness, but these pronouns were not examined through bi-uniqueness parameters and were not compared with Modern English or other languages.

Bailey (2007) investigated the language Piapoco through natural morphology theory. The terms uniformity and transparency were also used to show the relation of a one form-one function. It was observed that in Piapoco, each oblique case marker has only one function and one meaning: allative /-Re/, locative /-ni/, ablative /-íTe/ ~ /-éTe/, inessive /-ku/, perlative /-ba/, durative /-ya:pi/. In this sense, these morphemes are morphotactically and semantically transparent because there are no other markers with the same functions in this language (*Ibid.*, p. 44), and in the noun system of Piapoco, each morpheme is bi-unique (*Ibid.*, p. 48). This study did not investigate the naturalness and markedness of pronouns through the parameter bi-uniqueness.

Gholipour Hasanizade and Kazemi (2022) compared the English and Persian inflection systems based on the parameter uniformity. Research data were selected from both Persian and English corpora by means of a random sampling method; afterwards, the data were analyzed considering uniformity. In the data of this research, it was observed that in Persian, some suffixes such as plural suffixes, comparative suffix, third person singular suffixes used in past and present tenses and in English, plural forms, comparative and superlative suffixes and the suffix *-ed* used to make past tense violated bi-uniqueness. This research focused on Persian and English inflection and the parameter uniformity, and it did not investigate Old English personal pronouns.

In another study, Hasanizade, Kazemi and Iraji (2024) investigated Fusion in Persian and English inflection Based on Natural Morphology Theory. It was observed that in English, the pronouns *he* and *she* can distinguish gender without having an overt morph, so these pronouns are not natural. This research focused on the relationship between fusion and natural morphology in English and Persian and did not investigate Old English pronouns.

Methodology

To conduct the study, Old and Modern English personal pronouns were extracted from the sources elucidated in the previous section. The main source for Old English personal pronouns was Hogg (1992). The pronouns were classified according to the inflectional values illustrated in Haspelmath and Sims (2010: 82), which were as follows:

1. Number
2. Case
3. Gender
4. Person.

In the next step, the pronouns extracted from the sources will be analyzed and checked through the parameter bi-uniqueness to check their naturalness and markedness. In Modern English, dependent possessive and reflexive pronouns are not regarded.

Results and discussion

Old English

Tables 2, 3 and 4 show Old English personal pronouns.

Tab. 2. Old English first person pronouns

First Person	Singular	Dual	Plural
Nominative	iċ	wit	we
Accusative	mēċ	uncit	ūsiċ
Genitive	mīn	uncer	ūre
Dative	mē	unc	ūs

Source: Hogg, 1992: 144.

It is observed that first person singular pronouns did not violate bi-uniqueness, so in this parameter, all the pronouns are natural and unmarked.

Tab. 3. Old English second person pronouns

Second Person	Singular	Dual	Plural
Nominative	þū	ġit	ġē
Accusative	þē	inc	ēow
Genitive	þīn	incer	ēower
Dative	þē	inc	ēow

Source: Hogg, 1992: 145.

According to table 3, accusative and dative second person pronouns violate bi-uniqueness in all numbers (singular, plural, dual) because the morphs *þē*, *inc*, *ēow* have syncretism.

Tab. 4. Old English Third person pronouns

Third Person	Masculine	Feminine	Neuter	Plural
Nominative	he	hēo	hit	hī, hēo
Accusative	hine	hī	hit	hī, hēo
Genitive	his	hire	his	hira, heora
Dative	him	hire	him	him

Source: Hogg, 1992: 145.

Table 4 shows that in plural pronouns, *hī* and *hēo* violated bi-uniqueness, being observed in both nominative and accusative. The pronouns *hēo* and *hī* are also observed in the nominative and accusative feminine, respectively. The pronoun him in plural dative is also observed in masculine and neuter dative.

The pronoun hit violated bi-uniqueness, being observed in both nominative and accusative third person neuter.

The pronoun his is observed in both masculine and neuter genitive, and the pronoun hire is observed in both genitive and dative feminine.

Modern English

Table 5 shows Modern English personal pronouns.

Tab. 5. Modern English pronouns

	Subject	Object	Possessive
First person singular	I	me	mine
Second person singular	you	you	yours
Third person masculine	he	him	his
Third person feminine	she	her	hers
Third person neuter	it	it	its
First person plural	we	us	ours
Second person plural	you	you	yours
Third person plural	they	them	theirs

Source: Azar, Hagen, 2014: 139.

The pronoun *you* is observed in both second person singular and plural in subjective and objective cases, so bi-uniqueness is violated. The third person neuter *it* also violated the parameter, being observed in both subjective and objective cases. The other pronouns did not violate this parameter.

Results

According to the data presented in tables 2 to 5 and their definitions, it can be concluded that Old English pronouns violated bi-uniqueness more than Modern English. First person pronouns did not violate this parameter in both languages. In the second person, both old and Modern English violated the parameter. In Old English, it seems that the accusative and dative second personal pronouns tend to merge with each other. In Modern English, the second person singular and plural in both subjective and objective cases violate bi-uniqueness, which is similar to the behaviour of Old English.

Except for the pronoun it, Modern English did not violate bi-uniqueness in the third person, but in Old English, violations are observed between nominative and accusative and between dative and genitive, and in each case, bi-uniqueness violation can be observed; for instance, the pronoun him is observed in both dative masculine and neuter. It can be concluded that in third person pronouns, Old English violated bi-uniqueness more than Modern English. It seems that some marked and unnatural elements either became natural/unmarked or disappeared, but we need to check this with the data of the other languages.

Table 6 shows a summary of personal pronoun violation in these two languages (Positive means violation, and negative means that there is no sign of violation).

Tab. 6. A summary of bi-uniqueness violation in Old and Modern English personal pronouns

	Old English	Modern English
First Person	-	-
Second Person	+	+
Third Person	+	+

Source: own elaboration.

According to the above-mentioned explanations, through the parameter bi-uniqueness, in Modern English, the pronouns **you** and **it** and in Old English, the pronouns *þē*, *inc*, *ēow*, *hī*, *hēo*, *him*, *hit* and *his* violated the parameter, so they are unnatural and marked. It can be observed that eight pronouns of Old English and two pronouns of Modern English are unnatural and marked.

Conclusion

This article investigated the naturalness of old and Modern English personal pronouns through the parameter bi-uniqueness. It is observed that these languages violate the parameter in second and third personal pronouns, and it seems that some cases tend to merge with each other, but we can continue the study in the following subjects:
1. The other parameters of natural morphology should be used to check the naturalness of old and Modern English pronouns.

2. The personal pronouns of the other languages should be checked through bi-unique-ness parameters to observe whether the linguistic behaviour of these languages is similar to that of Old and Modern English.

3. The importance of bi-uniqueness is severely restricted in the languages of the world due to conflict with the principle of economy. This may explain the existence of ho-mophony and rampant polysemy (Dressler, 2006; cited by Dressler, Kilani-Schoch, 2016), so bi-uniqueness and the principle of economy may be intertwined. We need more studies to see their relationship on the pronouns of different languages.

References

Ahmadi S., Rahimian J. (2025), *An investigation into certain Persian Suffixes extracted from Tărix-ol-vozară: natural morphology*, "ZABANPAZHUHI (Journal of Language Research)", vol. 17(54), pp. 69–97.

Andersen H. (2008), *Naturalness and markedness*, [in:] W. Klaas, L. De Cuypere (eds.), *Naturalness and Iconicity in Language*, Amsterdam: John Benjamins, pp. 101–119.

Azar B., Hagen S.A. (2014), *Basic English Grammar (4th edition)*, New York: Pearson Education.

Bailey C. (2007), *Piapoco and Natural Morphology theory*, [in:] R. Shields (ed.) *Proceedings of WIGL 2007 (LSO Working Papers in Linguistics*, Madison: University of Wisconsin-Madison, pp. 33–53.

De Lacy P. (2006), *Markedness Reduction and Preservation in Phonology*, Cambridge: Cambridge University Press.

Donegan P., Stampe D. (1979), *The study of Natural Phonology*, [in:] D.A. Dinnsen (ed.), *Current Approaches to Phonological Theory*, Bloomington: Indiana University Press, pp. 126–173.

Dressler W.U. (1996), *Principles of naturalness in phonology and across components*, [in:] B. Hurch, R. Rhodes (eds.), *Natural Phonology: The State of the Art*, Berlin–New York: Mouton de Gruyter, pp. 41–51.

Dressler W.U., Kilani-Schoch M. (2016), *Natural Morphology*, [in:] A. Hippisley, G. Stump (eds.), *The Cambridge Handbook of Morphology*, Cambridge: Cambridge University Press, pp. 356–390.

Fromkin V., Rodman R., Hymes N. (2017), *An Introduction to Language (11th edition)*, Boston: Cengage Learning.

Gholipour H.L., Kazemi F. (2022), *Representation of Uniformity in Persian and English Inflection Based on Natural Morphology Theory: A Corpus-Based Study*, "Language Science", vol. 9(16), pp. 413–442.

Gholipour H.L., Kazemi F., Iraji M. (2024), *A Study of Fusion in Persian and English Inflection Based on Natural Morphology Theory*, "Journal of Language Researches", vol. 15, pp. 147–174.

Haghbin F. (2000), *Natural Morphology*, "Journal of Al-Zahra University", vol. 36(10), pp. 23–43.

Haspelmath M. (2006), *Against markedness*, "Journal of Linguistics", vol. 42, pp. 25–70.

Haspelmath M., Sims A.D. (2010), *Understanding morphology (2ⁿᵈ edition)*, London: Hodder Education.

Hogg R. (1992), *Phonology and Morphology*, [in:] R. Hogg, *The Cambridge History of the English Language*, vol. 1: *The Beginnings to 1066*, Cambridge: Cambridge University Press.

Hogg R.(2002), *An Introduction to Old English*, Edinburgh: Edinburgh University Press.

Jakobson R. (1968), *Child language, aphasia and phonological universals*, Hague–Paris: Mouton.

Murphy R. (2015), *Essentials Grammar in Use (4ᵗʰ edition)*, Cambridge: Cambridge University Press.

Murphy R, Smalzer W.R., Chapple J. (2017), *Basic Grammar in Use (4ᵗʰ edition)*, Cambridge: Cambridge University Press.

Quirk R., Wrenn C.L. (1994), *An Old English Grammar*, De Kalb: Northern Illinois University Press.

Rice K. (2007), *Markedness in phonology*, [in:] P. de Lacy (ed.), *The Cambridge Handbook of Phonology*, Cambridge: Cambridge University Press, pp. 79–98.

Spencer A. (1991), *Morphological Theory: An Introduction to Word Structure in Generative Grammar*, Oxford: Blackwell Publishers Ltd.

Stampe D. (1973), *On Chapter Nine*, [in:] M. Kenstowicz, C. Kisseberth (eds.), *Issues in Phonological Theory*, Hague: Mouton, pp. 44–52.

Trubetzkoy N. (1939), *Grundzu¨ge der Phonologie*, Prague: Vandenhoeck and Ruprecht.

Yule G. (2020), *The Study of Language (7ᵗʰ edition)*, Cambridge: Cambridge University Press.

Yule G. (2023), *The Study of Language (8ᵗʰ edition)*, Cambridge: Cambridge University Press.

Zhang Y., Tian F. (2015), *Study on Markedness in Linguistics*, "Sino-US English Teaching", vol. 12(9), pp. 667–671.