

PERSONAL PRONOUNS AND MARKEDNESS:
AN INTERPRETATION OF GRAMMATICALLY CONDITIONED
CHANGES

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This paper is an attempt at providing a unified account of some changes in inflectional paradigms which have, so far, remained somewhat enigmatic. It is devoted to the accusative/dative merger in personal pronouns of some Germanic languages.

Germanic personal pronouns are characterized by the so-called *cumulative exponence* of person, number, gender, and case, i.e. it is hardly possible to identify within their forms elements which are exponents of the grammatical categories enumerated above. Paradigmatic reductions and rearrangements in Germanic personal pronouns are not explicable in terms of phonological/phonetic changes. They are referred to as *grammatically conditioned sound changes* and attributed to phonetic, phonological, semantic, syntactic, sociolinguistic factors. We would like to claim that grammatically conditioned sound changes are first of all conditioned by relations among involved closed grammatical systems and relations among their terms. We hope to demonstrate that cumulative exponence does not present a problem and that *morphological transparency* may be claimed for it.

In our analysis, we treat personal pronouns as signs in the sense of Peirce, i.e. as an indivisible unity of the material, interpretant, and referential parts. By the material part we mean the form, by the interpretant part — the meaning or content of a given form and by the referential — the object referred to. We will concentrate on the first two parts here.

We assume that *alternation*, that is the use of two forms with partial identity of meaning in the same function, is the necessary prerequisite of a grammatically conditioned sound change. We are not in a position to claim anything about its actual occurrence but we will try to demonstrate which forms are likely to alternate and what forms are the final outcomes of such alternations.

The typological change from a highly to very weakly inflecting language

is best exemplified on the basis of the English corpus. There the dative/accusative mergers took place in all persons, numbers, and genders. However, they took place not at one time but formed a sequence of changes and their results were not the same.

OLD ENGLISH

<i>2nd p. dual</i>	<i>1st p. dual</i>	
Nom. git	wit	
Acc. inc, incit	unc (uncit)	
Dat. inc	unc	
<i>2nd p. pl.</i>	<i>1st p. pl.</i>	<i>3rd p. pl.</i>
ge	we	hie, hi, heo, hio
eow, eowic	us, usic	hie, hi, heo
eow (eowic)	us	him
<i>2nd p. sing.</i>	<i>1st p. sing.</i>	
pu	ic	
pe, pec	me, mec	
pe	me	
<i>3rd p. sing. fem.</i>	<i>3rd p. sing. m sc.</i>	<i>3rd p. sing. neutre</i>
heo, hie, hi, hio	he	hit
hie, hi	hine	hit
hire	him	him

In Old English, in almost all paradigms, the old accusative forms were eliminated and the dative form extended. The only exception was the 3rd person singular neuter pronoun where the nominative/accusative form was extended and the dative form eliminated. In the 3rd person, the sequence of mergers is fully traceable. It occurred first in the feminine, shortly after in the plural, then in the masculine, and only finally in the neuter.

Thus we will try to demonstrate what factors were responsible for the sequence of the mergers and for the different results of the mergers under discussion.

Since there are various syncretisms within and across paradigms and various differences among forms, we will concentrate first on the relations among the contents of pronoun forms as the content of each pronoun is clearly unique.

Each personal pronoun form is identified by us with its *content*. For instance, Modern English *him* is identified with the 3rd person singular masculine oblique. The terms used in the description of the content (meaning) of a given pronoun form are *terms in closed grammatical systems*:

the 3rd person — system of person

singular	— system of number
masculine	— system of gender
oblique	— system of case.

We want to claim, following Greenberg (1966), that there is an *implicational hierarchy among the closed grammatical systems*. The system of person is the highest one, the system of number is the second highest, the system of gender follows, and the system of case is the lowest of systems considered. To reflect the hierarchical ordering of the systems under consideration we assign numbers to them. The higher the number, the higher, that is the more important, the system for a given part of speech.

Hierarchy of systems relevant for personal pronouns

<i>SYSTEM</i>	<i>NUMBER</i>
PERSON	4
NUMBER	3
GENDER	2
CASE	1

Since in our analysis of contents all their elements are important, we also qualify the terms in each of the above systems and assign numbers to them; however, these numbers correspond to *different degrees of markedness* and thus we refer to them as value numbers:

- 0 — corresponds to the unmarked term in every system
- 1 and 2 to the marked terms.
- 1 is considered less marked than 2.

We construct a *model of related grammatical closed systems whose terms are assigned unmarked and marked values* and we will refer to it as the RGSTM model.

RGSTM MODEL

HIERARCHY OF SYSTEMS / RELATIONS AMONG TERMS

System	Number	Term	Value	Number
PERSON	4	3rd person	u	0
		1st person	m	1
		2nd person	m	2
NUMBER	3	singular	u	0
		plural	m	1
		dual	m	2
GENDER	2	neuter	u	0
		masculine	m	1
		feminine	m	2
CASE	1	nominative	u	0
		accusative	m	1
		dative	m	2

The selection of terms constituting the content of a given pronoun form is unique. For our analysis of changes each term is identified with the number of the system it belongs to, the value u/m, and the value number. For instance, OE *hine*: the 3rd person, singular, masculine, accusative, here the masculine is identified with 2, i.e. GENDER, and 1, i.e. masculine, the accusative is identified with 1, i.e. CASE, and 1, i.e. accusative. The 3rd person and singular are identified with 0 value numbers and thus the numbers of the systems they belong to are not taken into consideration at all (for a similar convention see Chomsky and Halle 1968).

OE <i>hine</i> : 3rd person	— 0
singular	— 0
masculine	— 2+1 (system number+value number)
accusative	— 1+1
<hr/> value of <i>hine</i> content	= 5

where the value of the content of *hine* is the sum of the numbers involved.

The numerical *content values* are important for the identification of *contents which are liable to changes*. The higher the numerical content value of a given form, the more likely it is that that content will undergo a change reflected in the change of the paradigm it belongs to. Theoretically, the 2nd person dual feminine dative (if it occurred) would be most likely to undergo a change since its content value would be 18, i.e. the highest numerical content value possible, whereas the 3rd person singular neuter nominative would be hardly liable to any change since its numerical content value is 0 in our model. The list below represents the RGSTM model based order of the sequence of changes in personal pronouns. The content values are calculated for the unique contents of pronouns, i.e. the shared content values of cases are disregarded.

order of the accusative/dative mergers (content values)

1. 2nd person dual	— 11
2. 2nd person plural	— 10
3. 1st person dual	— 10
4. 1st person plural	— 8
5. 2nd person singular	— 6
6. 1st person singular	— 5
7. 3rd person plural	— 4
8. 3rd person sing. fem.	— 4
9. 3rd person sing. msc.	— 3
10. 3rd person sing. neuter	— 0

The content value 10 is shared by two contents and the content value 4 also by two contents. In these cases, there is also ordering. The system numbers and the value numbers are important in an additional way. What matters

is firstly the system numbers identified in such pairs. If in one member of such a pair a higher system is identified than in the other member, the member with the higher system is more liable to change than the other member of the pair. In change (7) the system of number is involved (system number 4) whereas in change (8) a lower system, i.e. that of gender, is involved (system number 3).

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| 7. 3rd person plural | — 4 |
| 8. 3rd person sing. fem. | — 4 |

If the same systems are involved, as in changes 2 and 3, then the value numbers of terms in the highest involved system are decisive. The content involving the term with the higher value number is more liable to change than the content involving the term with the lower value number (in the highest system involved).

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| 2. 2nd person plural | — 10 (2nd person — 2) |
| 3. 1st person dual | — 10 (1st person — 1) |

The theoretical order of changes constitutes thus a one-by-one sequence which becomes subject to modification when the RGSTM model is applied to a particular language. Before we exemplify that, however, we have to present two procedures which reduce the number of oppositions in any closed grammatical system: neutralization and extension, based on Jakobson (1932). Both neutralization and extension involve the values of terms u/m.

— If the unmarked term in a given system replaces (that is its surface realization=form) the marked one we refer to it as *neutralization*.

— If a marked term replaces the unmarked term or the more marked term replaces the less marked term in a given system we refer to it as *extension*.

The *conditions* under which neutralization and extension take place are also identified within our RGSTM model.

— Neutralization takes place when among the terms constituting the content of a given form there is only one marked term and it is the less marked term in the system to undergo a change.

— Extension takes place when among the terms constituting the content of a given form there is either a marked term and it is the more marked term in the system to undergo a change or when more than one marked term is identified in the content of a given form.

Thus in two related systems X — higher, with system number 2 and Y — lower, with system number 1, each with three terms A — unmarked, B marked, and C — more marked, there can be only one neutralization but five distinct extensions. Neutralization will take place when in the content of a form we

identify term B in system Y and term A in system X. Extension will take place when in the content of a form we identify either term C in system Y and term A in system X, or term C or B in system Y and term C or B in system X.

NEUTRALIZATION

System	Number	Term	Value
X	2	A	u
		B	m
		C	m
Y	1	A	m
		B	u
		C	m

EXTENSION

System	Number	Term	Value
X	2	A	u
		B	m
		C	m
Y	1	A	u
		B	m
		C	m

The probability of a change occurring depends on:

- the numerical content value of a form
- and when two forms share the same numerical content value on:
 - the system numbers identified, and
 - the value numbers identified (of terms in the highest relevant system).

The higher they are the more probable it is that a content will undergo a change. These values and numbers are essential for the sequence of changes. The *direction of changes* is conditioned by the marked/unmarked values of terms identified in a given content, and in the system to undergo a change.

The English data cannot be used to verify the order of the accusative/dative mergers in the 2nd and 1st person dual, plural and singular as established within our model. Comparative data confirms it. In Gothic, the old 2nd p. dual dative form is used in the function of the accusative and the same is true for the plural. The 1st p. dual dative and accusative forms alternate and, again, the same is true for the plural. In the 2nd and 1st p. singular, the dative and accusative forms are kept distinct. In Old Saxon and in Old Frisian, the accusative/dative merger occurs earlier in the plural than in the singular. It always occurs latest in the 3rd person.

In all data examined, changes 1—9 are interpreted as extensions and change 10 is interpreted as neutralization. In all extensions the proper conditions for extensions are met and in change 10 the proper condition for neutralization is met. What happens is the replacement of the old accusative forms in 1—9 with the old dative forms and the elimination of the old dative form in 10.

The interpretation of the changes does not posit any problem, however, in English, change 7 (the 3rd p. pl.) occurred somewhat later than could be expected. It occurred after change 8 (the 3rd p. sing. fem.).

The RGSTM model is not an absolute one. We have already stated that alternation is the necessary prerequisite of a grammatically conditioned sound change and that the order of changes established within our model may be modified by the actually occurring forms of a language. The crucial difference between the English 3rd p. plural and 3rd p. singular feminine paradigms was that between the dative forms. In the accusative and nominative there were syncretisms both within and across paradigms but the 3rd p. plural dative form was clearly different from that of the 3rd p. singular feminine, i.e. *him* vs. *hire*. This difference does not alone provide us with any hint as to the modification of the RGSTM order of mergers. However, a closer examination of other forms of personal pronouns throws some interesting light on the problem of *morphological transparency*.

In Old English, in the 2nd and 1st p. dual and plural, the accusative forms had two segments more than the dative forms. In the 2nd and 1st p. singular, the accusative forms had one segment more than the dative forms. In the 3rd person, it was only the sing. msc. accusative form which had an additional segment as compared to the dative form; however, there was also a difference in the quality of one "common" segment. The 3rd p. plural accusative form had one segment less and the 3rd p. singular feminine accusative form one syllable less than the corresponding dative forms. In the 3rd p. singular neuter, the number of segments in the accusative and dative forms was identical; these forms differed by the quality of the final segment.

The only relatively regular difference between the accusative and dative forms was the difference in the number of segments in the 2nd and 1st person dual, plural, and singular. There the replacement of the accusative forms with the dative forms took place first.

The forms of English personal pronouns are extremely complex and the same applies to the relations among them. As one extreme there are suppletive forms, as the other syncretisms. It is not surprising then that the changes tended to occur first in these cases where the morphological transparency of forms was greatest, i.e. among those forms in which it was relatively easy to identify both the *common and differing elements*. In the 2nd and 1st person dual, plural, and singular, the morphological transparency of forms (whose contents were, anyway, very likely to change) was relatively great. As to the

3rd person, the morphological transparency of the 3rd p. sing. feminine forms was greater (a syllable consisting of two not shared segments) than in the 3rd p. plural (one segment difference). Just like the 2nd and 1st p. singular accusative/dative mergers (one segment difference) followed the 2nd and 1st p. dual and plural mergers (two segments difference), the 3rd p. plural merger (one segment difference) followed the 3rd p. singular feminine merger (two segments difference). Thus it is not the similarity between forms that facilitates the alternation but their morphological transparency in addition to the numerical content values of contents identified.

At this point it is interesting to compare the changes in English personal pronouns with those in some Scandinavian languages and in German.

In Old Norse, the mergers in the 2nd and 1st p. dual and plural were the same as in English; however, in the 2nd and 1st person singular, the dative forms were replaced with the accusative forms.

OLD NORSE

	<i>2nd p. sing.</i>	<i>1st p. sing.</i>
<i>Nom.</i>	þu	ek
<i>Acc.</i>	þik, þek	mik, mek
<i>Dat.</i>	þer	mer

The difference between the accusative and dative forms is in the quality of the final segment /k/, /r/ and possibly in the quality of the vowel. The morphological transparency of the forms is rather weak. However, a comparison of the subjective and oblique cases reveals that there the morphological transparency was stronger. In the 1st p. sing., the forms of the dependent cases are distinguished from the form of the subjective case by the presence vs. lack of one segment, i.e. /m/, and partly by the quality of the vowel. In the 2nd p. sing. the forms of the dependent cases are distinguished from the form of the subjective case also by the presence vs. lack of one segment /k/, /r/ and by the quality of the vowel. The presence vs. lack of a segment is decisive. The change occurs among the dependant cases, however, the form with the less marked term in its content spreads. The morphological transparency of the accusative and dative forms vs. the nominative form is the same in both paradigms. For the 1st p. singular, the accusative form is closer to the segmental make-up of the nominative form, i.e. /k/ is shared by both forms, and in that paradigm the same vowel may be claimed for all forms, i.e. /e/. For the paradigm of the 2nd p. singular, we cannot claim that any of the dependant case forms is closer to the subjective case form. We conclude that when the morphological transparency of forms, which we expect to alternate, is weak and when in the paradigm there are forms whose morphological transparency is greater, these forms must be taken into consideration. If the mor-

phological transparency of forms corresponding to B and C in a given system is weaker than that of A vs. B and C, then form B spreads. Its value number is closer to A than that of C to A. That is why in the cases under consideration the accusative forms replaced the dative forms.

In German, the accusative/dative merger has not taken place in the singular. In the plural, however, in Middle High German, there were mergers of the accusative and dative forms in the 2nd and 1st person plural. The paradigms were as follows:

MIDDLE HIGH GERMAN

	<i>2nd p. plural</i>	<i>1st p. plural</i>
<i>Nom.</i>	ir	wir
<i>Acc.</i>	iuch	unsih
<i>Dat.</i>	iu	uns

In the 1st p. plural, the dative form replaced the accusative form, i.e. there was the extension of the more marked term. In the 2nd p. plural, however, the accusative form replaced the dative form. What prevented the extension of the dative form and caused the spread of the accusative form was the phonotactic structure of the forms in question as compared to the phonotactic structure of the remaining forms of personal pronouns in High German. It was only the 2nd person plural dative form which did not have any consonantal segment as compared to the remaining forms. The accusative form, i.e. its basic phonotactic structure, was the same as that of the remaining forms. The spread of the accusative form in the 2nd person plural pronoun was conditioned by the phonotactic structure of the High German pronouns. This type of conditioning cannot be claimed for any of the mergers discussed before.

The proposed analysis of the grammatically conditioned sound changes or of the so-called *analogical transfer* allows for a unified interpretation of the apparently different and unexplicable changes.

The RGSTM model and morphological transparency may enable us to specify the actual meaning of the so-called *fittest member of a paradigm* and the direction of the *analogical paradigmatic levelling* as well as to predict the probability of the occurrence of a change and its sequential ordering.

According to our interpretation, extension takes place more often than neutralization and thus the forms corresponding to the marked terms and especially to the more marked terms are more likely to spread than the less or unmarked terms with their forms. We think that at that point the notion of the fundamental opposition as presented by Kuryłowicz (1964) should be evoked and extended to syntactic analysis. We hope that we have been able to indicate that what is considered most marked is not bound to disappear and that "most marked" may not mean "unnatural".

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