Pronoun Morphology

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Introduction

This paper examines the degree of regularity-irregularity and the complex morphological type of the personal pronouns in English, but also examines the other Germanic languages and Japanese.

The paper draws largely on my PhD thesis (Howe 1996) on personal pronouns in the Germanic languages, summarizing the main theoretical points on morphology and change. Parts of this paper will be presented at a conference on *Irregularity in Morphology (and Beyond)* in Bremen, Germany, in autumn this year.

The morphology of the pronouns with considerable irregularity is not well accounted for by morphological theories that concentrate on regularity. This paper, as well as examining personal pronoun morphology in English and other languages, attempts to account for this complex morphology.

A fundamental characteristic of the personal pronouns in the Germanic languages – and an important one for personal pronoun morphology – is that they are short. A main function of personal pronouns and other proforms is to *abbreviate*. A further characteristic is that the personal pronouns are generally among the most frequent words in English and other Germanic languages – virtually all the subjective and objective pronouns in English for example occur in the first one hundred most frequent words in speech. One of the most obvious consequences of high frequency is that a frequent form is more likely to be short rather than long. However, it is important to distinguish between shortness and ambiguity – the relevant factor is not how short a personal pronoun is, rather whether or not it is ambiguous. Ambiguity as a factor in change in the personal pronouns will be taken up later in the paper.

Theoretically, the morphology of the personal pronouns is analysed in this paper as representing two different systematic types: either systematic in terms of marking property *connections*, or systematic in terms of marking property *differences*. Either on the one hand representing properties by morphological patterning – i.e. shared properties are indicated by shared formatives – or, on the other hand, marking differences in property by suppletion – where a personal pronoun is morphologically distinct from other pronouns with which it shares a property or properties.

The paper also discusses how accented and unaccented forms of the same pronoun can vary in their connection to one another. Not only can the personal pronouns show suppletive or suppletive-like distinctions between separate pronouns, i.e. not derivable by general synchronic rule, but also non-synchronically-derivable variants of the *same* pronoun may occur.

The morphology of the personal pronouns is in many cases grammatically, semantically and formally complex. The personal pronouns in English and other Germanic languages are primarily representative, portmanteau forms rather than active indicators of each category/property: one personal pronoun cannot usually be derived from another just as one lexeme cannot usually be predicted from another. Personal pronouns are generally (co)referring terms, both grammatically and semantically to the external world – (in their core meaning) 'I' = the speaker, 'we' = a group to which 'I' belong, 'he' = the male person etc. – and therefore it is perhaps not surprising that also formally the personal pronouns show similarities both with regular morphology and with lexical or content words. This grammatical-lexical duality will be discussed further in the paper.

The personal pronouns in connected speech

For pronouns and other proforms, as stated above, a fundamental function is to *abbreviate*. It is the raison d'être of the personal pronouns to be (relatively) short – there would be little point in personal pronouns being as a rule longer than the noun phrases they substitute (including for the 1st and 2nd person terms such as name and title).[1]

The English personal pronouns are function words. This means that, like *the, a, be, that, on* and Japanese *wa,*

ga, no and *o* for example, they have grammatical function. Although usually written in their orthotone forms, the personal pronouns in English are mostly unaccented in normal connected speech. A study of the personal pronouns in English *must* therefore take account of their variation in accent[2] and consider them in connected speech (cf. Howe 1996). The isolated written or citation form of a personal pronoun is in connected speech the exception rather than the rule. For example, Gimson/Ramsaran (1989: 26) state that *his, her, we* and *them* have over 90% occurrences as unaccented forms. It is important to bear in mind, then, that for English the written language generally does not represent the most usual forms of the personal pronouns in speech.[3,4]

Function words differ considerably from lexical words in connected speech – compare again Gimson/Ramsaran (1989: 265f.) for English: 'Content words … generally have in connected speech the qualitative pattern of their isolate form and therefore retain some measure of qualitative prominence even when no pitch prominence is associated with them and when they are relatively unstressed.' Many function (or 'grammatical' or 'form') words, on the other hand, have 'two or more qualitative and quantitative patterns according to whether they are unaccented (as is usual) or accented …'. As Gimson/Ramsaran (1989: 261) point out, function words in English such as the personal pronouns, articles and auxiliary verbs are likely to be unaccented, although they may be accented if the meaning requires it. On connected speech and function words in Japanese, see Shibatani (1990: 175–177) and Tsujimura (2007: 92–94).

In a study of connected speech (cited in Crystal, 2003: 147), single words were cut out of a tape recording of clear, intelligible, continuous speech: when these were played to listeners, there was great difficulty in making a correct identification. Crystal states that 'Normal speech proves to be so rapidly and informally articulated that in fact over half the words cannot be recognized in isolation.' Gimson/Ramsaran (1989: 290) state on function words that 'Such is the reduction and obscuration of the unaccented forms that words which are phonetically and phonemically separate when said in isolation may be neutralized under weak accent.' They add that 'Such neutralization causes no confusion because of the high rate of redundancy of meaningful cues in English; it is only rarely that the context will allow a variety of interpretation for any one cue supplied by an unaccented word form.'

The important difference in accent between personal pronouns (and similar function words) in English and lexical or content words is immediately apparent in a comparison of the personal pronouns with (partially) homophonic lexical words:

eye		mine
yew	ewe	yaws
wee		hours
	hymn	

The difference is similarly apparent when personal pronouns are used as nouns in examples such as 'Is it a *he* or a *she*?', 'You're *it*' (in children's games), 'The diet to create a new *you*' etc.[5] Further, there may be evidence for a psychological and neurological distinction between function and content words (e.g. Fromkin & Rodman

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1 Formality and its influence on length will be discussed later in the paper.

2 In this paper, 'accent' is used as in Gimson/Ramsaran (1989) where 'variations of pitch, length, stress, and quality, contribute to the manifestation of the accented parts of connected speech' (1989: 262). Generally accent variants in the personal pronouns will be referred to as accented and unaccented where this is unambiguous, and by a convention +accent(ed) and −accent(ed), which represents greater–less accent(ed) (and not necessarily straightforwardly with/without or plus/minus accent). The use of the variables + and − accent(ed) – i.e. relative rather than absolute terms – is very useful in cross-linguistic study where absolute dichotomous terms are sometimes less helpful. Note that the use of accented–unaccented or + and − accent(ed) should not be taken to mean that there are necessarily only two accent variants.

3 Written English has only the contracted form *'s (Let's go)* and the archaic *'t ('Twas)*. As well as unaccented pronouns, some languages have specific emphatic forms, such as *ikke* ('I') in Dutch, Frisian and German dialect.

4 Genitive/possessive forms, not the main focus here, are always accented in English (see Quirk et al. 1985: 362).

5 In Japanese, the words for 'he' and 'she' – *kare* and *kanozyo* – are used for *boyfriend* and *girlfriend* respectively. Further examples of lexicalized pronouns in English are *thou* (*thee*, *thine*, *thy*) and *ye*: for the majority of Present English speakers, these forms are not part of their usual pronoun system, though they are still known, and may be used, as pronouns. Significantly, however, they may lose the accent variation typical of personal pronouns and other function words, occurring only in their citation form. Forms such as *thou* etc. and *ye* can be said to have been lexicalized – i.e. although they retain the pronoun form, they more resemble lexical words than function words. Note further that in the lexicalization of pronoun forms discussed here, the loss of accent variation characteristic of English personal pronouns and occurrence only of the citation form *mirrors* one of the processes cited by Hopper & Traugott (1993: 2f.) as typical of grammaticalization, namely phonological reduction (of auxiliaries) as in for example *going to* > *gonna*, or *will* > *'ll*.

1993: 39, 440 & 445). However, as touched on in the introduction, the pronouns have an important duality of grammatical and real-world categories and reference which will be discussed further below.

In Japanese, we will maintain, the equivalent of English unaccented pronouns is *zero* – i.e. where reference is clear, English speakers use an unaccented form of the pronoun and Japanese makes no overt (co)reference. The reference of unaccented pronouns in English – i.e. to given, anaphoric or indefinite referents or antecedents rather than new, focus, or contrastive reference – can perhaps be termed agreement and in other languages may be absent – as indeed we find in Japanese (cf. Howe 1996: 55, Tsujimura 2007: 254–257).

Thus, we can see in the 'over 90% occurrences' of many English personal pronouns as unaccented and in the common 'zero' pronouns of Japanese a parallel or equivalence.

Given that where reference is clear from context (text or situation) a pronoun will normally be unaccented in English and in Japanese zero, it is not surprising that Japanese pronouns, when they do occur, occur mostly in orthotone form. According to Hinds (1986: 248), in Japanese 'There is no difference in segmental or suprasegmental structure of pronouns depending on whether the context is emphatic or unemphatic. Nor is there a difference in accentuation, tone variation, or vowel length.' However, contraction of Japanese pronouns does occur and will be discussed later as well as in a forthcoming paper (Howe forthcoming a).

Morphology and frequency

As stated in the introduction, in English the personal pronouns are among the most frequent words. For example in the London–Lund Corpus of Spoken English (= educated British English),[6] all the subjective and objective pronouns except *us* occur in the first one hundred most frequent words: *I* is 3rd, *you* is 7th, *it* is 10th, *he* is 18th, *we* is 23rd, *they* is 24th, *she* is 59th, *me* is 66th, *them* is 77th, *him* is 89th and *her* is 96th. *Us* occurs, according to Gimson/Ramsaran (1989: 266), in the first 200 most common words in connected speech.

As pointed out by Zipf (cited in Mańczak, 1980: 50), one of the most obvious consequences of high frequency is that a frequent form is more likely to be short than long. In language, shortening of frequently used words is common, for instance in English *PC*, *phone*, *flu*, *TV* or *telly*, and in Japanese *pasokon*, *rimokon*, *makku* and *sûpâ*.

Although personal pronouns have very high frequency in English, in Japanese, by contrast, Suzuki (1978: 113) states that 'investigations into actual usage make it clear that personal pronouns appear only on very limited occasions'. One difference between English personal pronouns and some Japanese pronouns is *length*. As a clear example, contrast English *I* with its very formal Japanese equivalent *watakusi*. Here we must add that, although the length of a pronoun is basically a function of its frequency, formality is also a factor, especially so in Japanese, with more formal forms, if used, tending to be longer – compare the Japanese forms for 'I' *ore*, *boku*, *atasi*, *watasi*, *watakusi*.[7] Conversely, the more informal, and likely also the more frequent, the shorter a form tends to be. Two forthcoming papers, on 'Reference and ellipsis' and 'Pronouns and politeness' (Howe, forthcoming c and d), will examine why Japanese pronouns are less frequent than English pronouns.

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6 Svartvik et al. (1982: 43–46)

7 This is also often the case in language generally, where formal or polite language tends to be less direct, more elaborated and longer than informal language. Compare the following examples in Japanese (from Bunt 2003: 213–223 or my own) showing differences in word choice, morphology, titles and utterance length:

da – desu – de gozaimasu
iku (-anai, -ta) – ikimasu (-masen, -masita) etc.
o-kyaku-sama
Genki? – O-genki desu ka?
Jun-chan, mô tabeta? – Sensei wa mô mesiagarimasita ka?

And English:

Shut up! – Please be quiet – Would you mind not talking
Got the time? – Excuse me, could you tell me the time, please?

One could state, then, that frequency and formality are opposite tendencies, one to abbreviate, the other to elaborate. If we suggest that unaffected, informal language tends to shortness and economy, that utterances are lengthened when formal would seem to confirm this assumption – speakers go to some length to be polite. A third relevant factor is pragmatic constraint, for example where titles and/or names are used in place of, or in avoidance of pronominal address. This is common in Japanese and is also found in English and other European languages. Pragmatic constraint, including taboo, will be discussed briefly later and further in Howe (forthcoming d).

Patterning and suppletion

Figures 2 and 3 illustrate schematically two possible morphological types: the first is a perfectly patterning agglutinating paradigm, and the second a perfectly suppletive portmanteau paradigm.[8]

Figure 2: Patterning paradigm

1SN	1SO	1SG
2SN	2SO	2SG
3SMN	3SMO	3SMG
3SFN	3SFO	3SFG
3SXN	3SXO	3SXG
1PN	2PO	2PG
3PN	3PO	3PG

Figure 3: Suppletive paradigm

X	H	E
S	D	K
Y	U	O
G	N	R
C	L	W
B	P	V
M	F	A

In the patterning agglutinating paradigm in Figure 2, each form consists of a number of regular discrete agglutinating morphs. Each morph is the same throughout the paradigm and unambiguously indicates its particular property, i.e. there are no allomorphs and there is a perfect one-to-one relationship of form to meaning. The meaning of each pronoun is a function of the meaning of its component parts. The ordering of the elements is entirely predictable and each element is clearly segmentable. A change of a property (e.g. from 1st to 2nd person or from singular to plural) means a change of one morph only, not a change of the whole form. The personal pronouns in Figure 2 can thus be generated by rule.

In contrast, in the suppletive portmanteau paradigm in Figure 3, each personal pronoun is a single unique portmanteau morph which refers to the bundle of properties rather than formally indicating each property individually. The forms in Figure 3 are arbitrary representative terms in the same way that most lexemes have an arbitrary relationship between form and meaning. These pronouns have no formal connection to one another and a change in a property will result in a complete change of form. The forms in Figure 3 cannot then be generated by rule.

One consequence of the high frequency discussed above is that frequent forms are more likely to be simplex, ready-made forms, as in Figure 3, rather than combined from separate elements each time they are required. A portmanteau form, as well as being ready-made, may possibly also be shorter than an agglutinating form made up of several different elements: where a portmanteau form requires one morph only, an agglutinating form, as in Figure 2, requires several elements.

Patterning

If we examine the actual personal pronouns in English, however, they are not as completely isolated as the forms in the hypothetical suppletive portmanteau paradigm. There appears to be some kind of *patterning* in some of the pronouns which, although it does not reach the level of predictable full-scale inflection, may still show some potentially significant correspondences.

A clear indicator of the significance of patterning is *analogical extension*: if a formative is extended from one or more forms to another form or forms sharing the same property or properties, we can say that in the mind of the language user(s) there is a connection. An example of such a development in English is the preliterary extension of initial *h-* in the (orthotone forms of the) 3rd person pronouns, remnants of which can still be seen in Modern English *he*, *him*, *his* and *her*. The subsequent – suppletive or suppletive-like – developments of *she* and *they*, which will be discussed later, have obscured this pattern. In Old English, all the 3rd person personal pronouns, singular and plural, were marked with initial *h-* (see Howe 1996: 83–85 and 131–133), as comparison with two closely related languages, Old Saxon and Middle Dutch, shows:

[8] For convenience, the categories/properties used here for illustration are based loosely on Modern English. In this study ‘category’ and ‘property’ are used as in Matthews (see 1974: 66 & 136) where ‘categories’ are e.g. person, number, case etc., and ‘properties’ are individual terms of categories, such as 1st, 2nd, singular, plural, nominative, accusative etc. For a survey of other terms in use see Carstairs-McCarthy (1992: 196f.).

Old Saxon 3rd person pronouns

he	ina	im	is
it	it	im	is
siu	sia	iru	iro
sia	sia	im	iro

Middle Dutch 3rd person pronouns

hi	hem	hem	sijns
het	het	hem	(sijns)
si	haer, -se	haer	haer
si	hem, -se	hem	haer

Old English 3rd person pronouns

he	hine	him	his
hit	hit	him	his
hīo	hīe	hire	hire
hīe	hīe	him	hira

Japanese, too, shows similar patterning, most obviously in the *ko–so–a–do* deictics and associated interrogatives:

Japanese *ko–so–a–do*

kore	sore	are	dore
koko	soko	asoko	doko
kotti	sotti	atti	dotti
kotira	sotira	atira	dotira
kono	sono	ano	dono
konna	sonna	anna	donna
kô	sô	â	dô

Other examples of patterning in English are *the*, *this*, *that*, *these*, *those*, *there*, *then*, and the interrogatives *what*, *which*, *where*, *when*, *why*, *whether* and (in writing) *who*, *whose*, *whom*. Earlier English and other Germanic languages have a deictic and interrogative pattern *here–there–where*, *hence–thence–whence*, *hither–thither–whither* paralleling the Japanese equivalents above. And such patterning is by no means unknown in other areas of the language, for example (as also again in many related languages) the *n-* of the negatives *no*, *not*, *n't*, *none*, *never*, *neither*, *nor*, *nobody*, *no-one*, *nothing*, *nowhere*, *non-*, *nil*, *null*, *nought* and *negative*.

Pike, in a discussion of German, terms such patterning elements *formatives*. By formatives Pike means elements which do have some signalling function, but which cannot always be dealt with in a conventional morphemic approach, as Pike states (1965: 219): 'obvious formative groups are present, functioning as formal signals, but … classical morphemics cannot segment these neatly because of limiting assumptions … concerning the relation of form to meaning'. Pike takes the term formative from Bolinger (1948), but uses it differently; for Bolinger a formative is a type of morpheme that can enter into new combinations, as opposed to one that has only diachronic value. Other possible terms are *submorpheme* (see Crystal 1991: 224), which is perhaps too fixed to allow for a range of relevance, and *semimorpheme* – Quirk et al. (1985: 1584) speak of the 'semi-morphological status' of e.g. /sn/ in *sneer*, *snide*, *snoop*, or the ending of *rattle*, *sizzle*, *tinkle*. Haas (1966: 129), in a section entitled 'Relevance without Contrast', states that 'there are important grammatical elements which contract no contrasts or do so only rarely' and 'when, on the grammatical level, we have obtained all the distinctive elements …, we are left with a residue of important non-distinctive, or practically non-distinctive elements'.

Hockett (1987: 97) states that there is no neat boundary separating strong associations from those features or patterns that give rise to vaguer associations; he believes (1987: 88) that there are no objective grounds for distinction between 'official grammatical structure' and 'accidental' similarity, rather 'it is a difference of degree, not of kind'. Hockett terms this kind of similarity 'accidental', but as shown by English *h-* above and other examples in Howe (1996), in the personal pronouns at least such similarities in form are in many cases not mere coincidence.

In this paper, as in Howe (1996), we will use the term *morphological patterning* to define where there is some form-to-meaning correspondence. This term allows us to speak of (grammatical or semantic) form-to-meaning correspondences that are not necessarily 'regular' in the conventional linguistic sense, but are nevertheless present. Language can show significant patterning without being derivable by rule.

Suppletion

Conversely, an element may be perceived to have meaning not because it shows a pattern, but because it is *unique* in a paradigm. Patterning and uniqueness can be said to represent two different systematic morphological types: either systematic in terms of indicating property

connections, or systematic in terms of marking property *differences*. Obviously this second type cannot denote 'derived by rule', but it does represent a systematic type. These two morphological types were illustrated in the figures above: Figure 2 represents all its properties by patterning, i.e. shared properties are indicated by shared formatives; Figure 3, on the other hand, rather than indicating a connection between personal pronouns in terms of properties shared, marks the differences in property by *suppletion* – i.e. a personal pronoun is *distinct* from other pronouns with which it shares a property.

Suppletion is often defined as the use of a morphologically unrelated (though semantically related) form to complete a paradigm, as in English *go–went*. An example of such suppletion in the personal pronouns in English is the 3rd person plural *they (them–their)*, borrowed from Scandinavian. This is essentially an etymological definition of suppletion, then, but there are also other developments that can result in suppletive-like distinctions, as discussed in Werner (1991) and Howe (1996). Perhaps, then, at least synchronically speaking, it is possible to extend the definition of suppletion to include all forms of a paradigm that show no connection in form even though they have a connection in property. In fact, in some cases the ultimate origins of the suppletion may be uncertain; for example, although synchronically the 1st p. sing. pronouns *I–me–mine*, *my* show a suppletive subjective–oblique case distinction, it is not certain whether these forms derive from two different roots or from the same stem accented differently (Forchheimer 1953).

Complex morphology

The morphology of the personal pronouns is in many cases grammatically, semantically and formally complex. Suzuki (1978: 115) states that the 'so-called Japanese personal pronouns' do not form an independent word group morphologically; however, even a casual glance at the English personal pronouns shows that they are by no means morphologically 'regular' either.

The contrast between regular inflection and the irregular morphology of the pronouns in English is illustrated below:

Regular inflection

Singular	**Plural**
eye	eyes
gold etc. mine	*gold etc*. mines
hour	hours
hymn	hymns
yew	yews
ewe	ewes

Irregular morphology

Singular	**Plural**
I	we
mine	ours
him	them
you	
you	you + all > y'all
but indeed you	you + [z] > yous(e)

And between Japanese and English plurals:

Japanese	**English**
watasi-tati, -ra	we
anata-tati, -ra	you (y'all, yous(e))
kare-tati, -ra	they
kanozyo-tati, -ra	

Similarly, the genitive/possessives, which are formed in Japanese by addition of the particle *no*:

Japanese	**English**
watasi no	my, mine
anata no	your, yours
kare no	his
kanozyo no	her, hers

The last two tables show that in the formation of the plural and genitive/possessive at least, Japanese pronouns are in fact more regular than their English counterparts.

However, especially in the older stages of the Germanic languages, including English, the 3rd person personal pronouns in particular do show inflectional similarity with other pronouns, such as the demonstratives, and with noun phrase inflection. The connection between category/property distinction in noun phrases and in personal pronouns will be discussed further below.

Phonological developments can differ between accented and unaccented pronouns

Accent variation in the personal pronouns can result in differences in phonological development, both between pronouns and between pronoun and non-pronoun forms. For example, a +accented form may undergo a development which the −accented form or forms do(es) not, or vice versa. Important here also is possible change in the relative domain of originally + and − accent forms, i.e. the generalization or increase in domain of one form and decrease in domain of another. For example, a +accent pronoun may be generalized also as a −accented form, or an originally −accented pronoun may be generalized as a +accent form. An example of such changes in English is the 1st person singular in Middle English *ic*, *ik*, *i*, *ich*, with generalization if *i*, later *ī*, and Present Standard English *I* [aɪ].

Although regular phonological developments also take place in the personal pronouns, accent variation, sandhi (see Howe, 1996: 88–91) and generalization of originally +accented or −accented forms can result in different developments to non-pronoun forms. As illustration, compare the following examples from English, again using the 1st person singular 'I':

	1st p. sing.	'tar'
Old English	iċ	piċ
Modern English	I [aɪ]	pitch [pɪʧ]

Morphological, grammatical and semantic differences between accented and unaccented forms

As well as separate pronouns, + and − accent forms of what we may term the same pronoun (e.g. 3rd p. plural masc. subj. 'he') can also vary in their connection to one another. Nübling (1992: 6f.), following Zwicky (see Nübling for references), defines as a 'simple clitic' a clitic which corresponds synchronically to an independent full form. Such a correspondence of simple clisis accounts for many of the personal pronouns, and here we can speak of full and reduced forms – for example *him* [hɪm – ɪm] and *her* [hɜː – hə – ɜː – ə]. However, some personal pronouns can be described by what Nübling, following Zwicky, terms a 'special clitic' – either the clitic has no corresponding full form, or the full and clitic forms are not derivable synchronically. Contrast for example English *him*, *her* and *it* below:

You're not going to MARRY him?
You're not going to marry HIM?

You're not going to MARRY her?
You're not going to marry HER?

But:

You're not going to EAT it?
?You're not going to eat IT?[9]

There are also examples where the −accented pronoun is not synchronically phonologically derivable from the +accented orthotone form – i.e. the −accented form is *not* simply phonologically a reduced form of the orthotone pronoun. The distinction between +accented and −accented form can range on a scale from suppletion, such as particularly well illustrated in Frisian, a language closely related to English:

Frisian (Saterlandic)	**+accented**	**−accented**
3rd p. sing. masc. subj.	hie	er
3rd p. sing. fem. subj.	ju	ze
3rd p. plural subj.	jo	ze

To less suppletive, but nevertheless non-synchronically-derivable differences, for example West Frisian (see Visser 1988: 178f. & 187f.):

Frisian (West)	**+accented**	**−accented**
1st p. sing. obj.	[mɛi]	[mi]
2nd p. sing. T obj.	[dɛi]	[di]
1st p. plural subj.	[vɛi]	[vi]

Visser states that there are in these forms synchronically neither any general phonological processes that derive the −accented form from the +accented form, nor conversely are there any general phonological processes that derive the +accented form from the −accented form when accented.

Further, a common development in the personal pronouns in the Germanic languages is reinterpretation of originally case forms as accent forms (see Howe 1996: §2.7, §3.1.1, §3.1.3 and index for detailed references).

9 It can only rarely receive stress, for example 'Is that IT?', see Quirk et al. (1985: 348).

In such developments, the original case function of the pronouns is lost or obsolescent, and the pronominal case forms are reinterpreted as + and −accent forms. This can result in increased irregularity as such accent variants are then not simply phonologically reduced or emphatic versions of one another.

Grammatical and semantic differences

The fact that more information is given from context (text or situation) when −accent pronouns are used means that in some cases unaccented forms may maintain fewer distinctions or have less specific reference than accented pronouns. In Dutch, another language closely related to English, gender, case and number reference can all vary between some + and − accent pronoun forms (see Howe 1996: 30–31).

In English, −accented *we* or *you* can refer either definitely or indefinitely, while accented *WE* and *YOU* refer specifically and cannot have general, indefinite reference:

> We shouldn't watch so much television.
> WE shouldn't watch so much television.
>
> Your country needs you.
> Your country needs YOU.

An explanation for such differences is that strength of reference is a function of accent – i.e. the more strongly accented, the stronger and thus more specific the reference.

In Japanese, too, contracted forms of some of the pronouns are not necessarily simply shortened variants, but may have differences in register or meaning, such as formal or informal (with contracted forms being less formal) or male or female, as in the feminine-labelled *atasi*.

Makino and Tsutsui (1986/1989: 28–29), for example, cite 'at least' six contracted forms of the 1st person singular, with decreasing formality:[10]

watakusi	very formal
atakusi	formal, female
watasi	formal
atasi	informal, female
wasi	informal, older male
assi	very informal, adult male, Tokyo Bay
atai	very informal/vulgar, female

Like the case forms above, such variants show *reinterpretation*, though here semantic reinterpretation. Reinterpretation is common in the personal pronouns in English and other Germanic languages, see Howe (1996: 95–100), and will be examined further, together with Japanese, in a subsequent paper (Howe, forthcoming b).

The discussion above shows that the correspondence between full and reduced forms of pronouns is not necessarily a simple one.

Relationship of categories in language with categories in pronouns

Grammatical and real-world categories

A central factor in the personal pronouns is the connection between category/property distinctions in the language outside the personal pronouns and those in the personal pronouns. These categories/properties can be grammatical ones and/or natural ones based on real-word entities.[11] Examples of grammatical categories in the personal pronouns in the Germanic languages are (nominative, accusative, dative, genitive) case or (masculine, feminine, neuter) grammatical gender. Examples of real-world-based categories in personal pronouns are for instance person, natural gender and T/V.[12]

Of course, categorization of the real world in language, as well as types of grammatical category, can differ from language to language – something abundantly clear in worldwide comparative studies of pronoun systems – see for example the articles on pronouns by Ingram and Head in Greenberg (1978). Further, these two types of category are not necessarily mutually exclusive – both can be relevant in personal pronouns – for example in the Germanic languages the selection of 3rd person gender pronoun is frequently governed to varying degrees by

[10] Further Japanese pronoun variants will be discussed in Howe (forthcoming a).

[11] The distinction 'grammatical' versus 'natural' categories here is meant in the same sense as grammatical and natural gender. *Both* types of category are grammatical in the sense that they display formal contrasts in the personal pronouns, although governed by different criteria.

[12] Socially-differentiated forms of address will be referred to in this paper as T and V (from Latin *tu* and *vos*), where T is less formal and V more formal. As will be discussed in Howe (forthcoming d), however, this terminology is not well suited to Japanese, nor is it ideal for English, as 'T/V' factors are also relevant for 1st and 3rd person reference.

both grammatical and natural gender.[13]

Grammatical categories and noun phrases

Also fundamental in the personal pronouns is the connection between category/property distinction in noun phrases and in personal pronouns. The relevance of noun phrase distinction is that syntactically personal pronouns function like noun phrases. That the pronouns parallel or follow distinction made in noun phrases is clear form their proform nature.

This connection between category/property distinction in noun phrases and in personal pronouns can be expressed as the following implicational statement:

> If a category/property distinction – grammatical and/or real world – is made in noun phrases, then the distinction will usually also be made (though not necessarily with the same formatives) in the personal pronouns.

Note that this implicational statement does not exclude *additional* real-world-based distinctions absent in noun phrases being made in the personal pronouns. Grammatical categories in the personal pronouns are dependent on distinctions made in noun phrases. Real-world-based categories, on the other hand, do not *depend* on distinctions made in noun phrases and can always occur; indeed, according to Greenberg (1966: 113) person and number are universal categories in pronoun systems (though see also Mühlhäusler & Harré 1990: 62–65).

The distinction of both types of category outside noun phrases, including outside the personal pronouns – for example by verb morphology, syntactically, or in Japanese by context – can be important to distinction in the personal pronouns.

Personal pronouns often retain distinctions longer than noun phrases

If a *grammatical* category/property-based distinction is lost in noun phrases, the evidence from the Germanic languages indicates that the distinction is also eventually lost in the personal pronouns. Personal pronouns cannot indefinitely uphold a grammatical category/property-based distinction alone, and the loss in noun phrases means that the personal pronouns are left with a grammatical category/property-based distinction that has little or no noun phrase parallel.

Change is frequently a gradual process, not only in the spread in the language community, but also in the language itself. A distinction may be lost in noun phrases, and (then) in some pronouns, and (possibly) eventually in all forms. Similarly for example, changes in morphological to syntactic distinction take place over a long timescale and do not represent an either–or, but rather an increase–decrease where both may be relevant. This diffusion of grammatical change is an important feature of change affecting the personal pronouns, and is one of the reasons for synchronic irregularity: change is not necessarily synchronized in all forms.

That person, T/V etc. can and do exist or remain as categories in pronouns even when not distinguished in noun phrases or even elsewhere in the language can, as stated above, be explained by their real-world nature – they are not *dependent* on distinction made in noun phrases.

Retention of forms does not always mean retention of the original category/property, however. A common development in the personal pronouns, touched on earlier, is *reinterpretation*, where pronoun forms are reinterpreted into a new use. One example here as illustration already mentioned above are the English 3rd person singular gender forms: English no longer has a grammatical masc.-fem.-neuter distinction – the personal pronouns *he–she–it* are reflexes of this, but their use is governed by different (natural rather than grammatical gender) criteria.

However, examples remain which do genuinely represent a longer maintenance of a category/property in the personal pronouns than in other word classes. One reason for the longer retention in the personal pronouns is that morphologically the personal pronouns are, as discussed earlier, on the whole portmanteau forms rather than suffixed inflection, and are thus phonologically less likely to lose inflection through the reduction of endings common in adjectives, nouns and verbs in the Germanic languages. Furthermore, the high degree of suppletion in the personal pronouns means that given phonological reduction, forms which have a suppletive distinction will

[13] Diachronic change in the real world/grammatical basis of categories is also possible, for example in grammatical to natural gender where selection of the gender pronoun becomes increasingly governed by the gender of the real-world referent rather than the grammatical gender of the antecedent. This development – attested to varying extents in English and other Germanic languages – contradicts the hypothesis of unidirectionality proposed in grammaticalization theory (e.g. Hopper & Traugott 1993, chapter 5).

tend to remain formally distinct longer than those with less suppletive distinctions. A further factor is that frequent forms are acquired by children as individual forms before the acquisition of general patterns.

The distinction between grammatical and real-world-based categories/properties made above is important here. Although it cannot be expected, indeed the evidence from the Germanic languages shows, that a *grammatical* category/property-based distinction lost in noun phrases will be maintained indefinitely in the personal pronouns – their delay or maintenance of the form can be explained by the reasons discussed – the maintenance of some real-world-based category/property distinctions in the personal pronouns, such as person or natural gender, even when absent from noun phrases, may be to facilitate clearer reference.[14] Note the occurrence of other real-world-based categories/properties in pronouns to facilitate reference: in English and other Germanic languages *personal*/*non-personal* and *animate*/*inanimate* often come under the heading of natural gender, and *proximity* is a category in *this–that*, as it is in Japanese *kore–sore–are*. Similar categories outside the Germanic languages and Japanese include inclusive/exclusive or visible/invisible.[15]

To summarize, then, grammatical distinctions lost in noun phrases are eventually lost in personal pronouns, but some real-world distinctions may be maintained to facilitate reference. Maintenance of clear reference – both grammatical and real world – will be discussed in the following section in ambiguity as a factor in change in the personal pronouns.

Therapeutic change

Several authors have commented on the importance of the size of the word class in determining the type of morphology or degree of regularity–irregularity, and the example of the personal pronouns has often been given as an illustration of the type of morphological system found in a relatively small word class.[16] For example, Pike (1965: 205f.) states 'The "simple" matrix, with vector formatives is very efficient when a larger number of meanings is involved. A few hundred morphemes may be combined into an enormous number of messages. Yet the memory load – and the learning load – is relative to the flexibility obtained for the system. This kind of system, therefore, is efficient in its use of *large open classes* of forms' [Pike's italics]. For an 'ideal' (i.e. suppletive portmanteau) matrix, Pike states 'The efficiency here is very great in terms of compactness of signal, since two (or more) categories are carried by the single – often short – formative.' He adds, 'although the single-celled formative is highly efficient in these terms, it must be harder to learn and remember, however, specifically because of the complexity which gives it that efficiency. This memory load seems to put some kind of a limit on the number of such formatives – e.g. affixes and particles – which any one language can maintain. For this reason it is only in small closed systems (such as a pronominal set)[17] that one is likely to find extensive use of single-celled formatives.'

However, although this does indeed seem to *describe* much of the inflection in large and small word classes in for example English – the personal pronouns are generally more suppletive than many larger word classes – there seems to be no purely numerical reason why a large word class should necessarily be morphologically regular. In the largest 'word class' of all, the lexicon, thousands of lexical items with little or no formal connection are learnt with no apparent difficulty, and it is quite possible – indeed in the world as a whole quite common – for language-users to learn two or more languages, increasing the size of the vocabulary even further. In addition, not only do speakers memorize individual forms, but their lexical entry may also specify accent or tone, (in Germanic languages for instance) gender (of nouns) and (in German for example) a non-predictable plural marker, as well as for many language-users a written form – in English and Japanese frequently a non-predictable spelling or *kanji*. Therefore, the suggestion that a suppletive word class must be small because of a numerical difficulty in remembering a large number of forms seems not to hold

14 T/V, on the other hand, is *socially* deictic.

15 Maintenance of some real-world-based category/property distinctions in the personal pronouns to facilitate clearer reference also accounts for the *absence* of animacy or personal/non-personal distinction in the 1st and 2nd person pronouns.

16 Whether Japanese has a personal pronoun word class, and the size of any such word class, will be discussed further in Howe (forthcoming a).

17 We will look at closed-classness in a later paper, but can state here that new pronouns can be and indeed have been added to this supposedly 'closed class', even in English, and certainly pronouns can be lost from this 'closed' class. We should rather state that the class of pronouns in many languages – indeed the class of function words – is comparatively *stable*, i.e. new forms can be added, but much less often than is the case for lexical or content words (see Howe 1996: 100–104 and forthcoming b).

– it seems quite within the capacity of a language-user to learn a large number of formally unconnected items.

Ambiguity

However, where the size of the word class may be relevant is in the toleration of homonymy: it is likely that homonymy will be tolerated much less in a relatively small word class such as the personal pronouns where forms with very similar functions and reference occur frequently in similar or identical contexts. Forms such as English *hair*/*hare*, *time*/*thyme*, *vein*/*vain*/*vane* – or Japanese *hana* (flower)/*hana* (nose) – are unlikely to occur in the same contexts where ambiguity could be a problem. Similarly, grammatically as well as semantically forms such as *threw* (V)/*through* (P) – *down* (P, V)/*down* (N) – *blue* (A)/*blew* (V) – *an* (det)/*Anne* (N) – and indeed *I*/*eye*/*aye*/(the letter)*I* – *you*/*yew*/*ewe*/(the letter)*U* – *we*/*wee* – *him*/*hymn* – *mine*/*mine* – *ours*/*hours* – are unlikely to occur in the same context and result in a homophonic clash, i.e. in ambiguity. In the small word class of the highly frequent personal pronouns, however, homonymy is much more likely to be a hindrance to comprehension.

In Howe (1996), I argue for the importance of therapeutic change in the personal pronouns in the Germanic languages. Many developments in the pronouns can be explained as a remaking of category/property distinctions which were still valid but which had become ambiguous. Example causes of ambiguity in the personal pronouns are phonological merger, merger through T/V usage (for example 2nd p. plural used as 2nd p. singular), or loss of former disambiguating verb morphology.

As pointed out by Gilliéron,[18] homonymy in itself does not lead to ambiguity, rather it is where homonymic forms occur in the same contexts that a homonymic clash or ambiguity can result. Note also that unlike 'homonymy', i.e. formal sameness, which is a fixed concept, ambiguity is a variable. 'Ambiguity' thus allows differences from language to language, such as the significance of word order, verb morphology or context for example, to be accounted for. In addition, a variable term 'ambiguity' also allows for the possibility of category/property hierarchy (nominative over oblique for instance) and for accented–unaccented use, and further can include on an ambiguity scale addition of quantifiers such as us *two*, you *all*, or they *both*, which may also be defined as clarifications aimed at facilitating the task of the hearer in the communicative situation.

Ambiguity also depends on the frequency of use of homonymic forms – i.e. if they are comparatively infrequent, then ambiguity is unlikely to be a problem, even if they can occur in identical contexts. The importance of ambiguity and therapeutic change in the personal pronouns argued here can be connected with the fact that the personal pronouns are *function* words, and have both high frequency of use and a condition of referential non-ambiguity – as stated above, the personal pronouns are a small set of forms with very similar functions and reference occurring frequently in similar or identical contexts. Ambiguity in the personal pronouns concerns speakers and hearers in communicative situations, i.e. the speaker–hearer interface and speaker–hearer interaction, and as such is change motivated in speech and by communicative need.

Changes to suppletion

Morphologically, relatively few of the therapeutic changes in the pronouns are by the addition of regular inflection. One reason for this is that often the personal pronouns have, as discussed earlier, comparatively little regular, consistent inflectional pattern and consequently often there is very little inflectional pattern in the personal pronouns to follow. Furthermore, there is often little or no appropriate noun phrase pattern to follow either as some real-world distinctions (such as person) made in personal pronouns are absent in noun phrases and, in ambiguity in nominative singular forms, the nominative singular in noun phrase inflection may be unmarked/markerless for case, number and/or gender. However – as shown by for example English plural *you-s(e)* – where a pattern does exist, changes in the pronouns may follow this pattern.

Rather than by regular inflection, a number of the changes in the personal pronouns in the Germanic languages show a type of therapeutic change akin to the lexical replacement discussed by Gilliéron on the basis of the *Atlas linguistique de la France* – i.e. by a complete change of form – though in this case a pronominal form. Where in Gilliéron's examples therapeutic change by suppletion is by *lexical* replacement, or in English *go–went by verbal* replacement, in the personal pronouns developments that show therapeutic change by suppletion show *pronominal* replacement – i.e. distinct forms are

[18] For a summary of Gilliéron see for example Bynon (1977: 186–190).

taken from the pronouns themselves.[19] Not all therapeutic change in the pronouns involves the use of redundant forms for repair; however, use of redundant forms is seen in oblique pronouns as subj. forms (as in Swedish 3rd p. plural *dom*), in dual pronouns as plural forms (as possibly in Icelandic *við* and *þið*), in generalization of distinct variant forms (as possibly in English *she*), and in the borrowing of foreign or dialect forms (as in English *they*). For further discussion and examples, see Howe (1996: chapter 2).

The systematicness of suppletive morphology in that it marks distinctions between forms sharing the same category/property or categories/properties – i.e. forms are *distinct* from those with which they share a category/property or categories/properties – as opposed to marking correspondences as with patterning morphology – has already been discussed above, and here it is argued how a number of developments because of ambiguity – i.e. a lack of adequate distinction – can and do result in suppletion – i.e. the taking of forms to make a distinction. This thus demonstrates one further way that suppletive morphology in the personal pronouns can arise. The systematicness of such developments and the frequent lack of morphological parallel show how developments that result in suppletive distinction cannot simply be regarded as 'irregular'.

Conclusions

As well as correspondences between form and meaning, the personal pronouns show in their degree of suppletive morphology a correspondence between form and function. Not only can there be a connection between form and meaning in the sense of consistent category/property correspondences, but there can also be a connection between form and function in the greater degree of suppletive morphology as a result of the factors discussed in this paper.

The personal pronouns are only 'irregular' in the sense that they do not conform to the usual pattern of inflection in the language. Cf. Werner (1991: 396) who states 'Instead of postulating a basic uniformity in language which can be "disturbed" …, we should look for a consistent and comprehensive theory of language change that explains this non-uniform behaviour.'

As discussed in the introduction, the personal pronouns are generally (co)referring terms, both grammatically and semantically to the external world – in their core meaning 'I' = the speaker, 'we' = a group to which 'I' belong, 'he' = the male person etc. – and therefore it is perhaps not surprising that also formally the personal pronouns show similarities both with regular morphology and with lexical or content words. The occurrence of suppletive portmanteau forms in the personal pronouns, as well as the fact that they must be learnt individually, although not the rule in the grammar, is not exceptional at all in language as a whole.

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[19] Lexical replacement or avoidance may occur not only because of ambiguity, but also because of *taboo* – see e.g. Lehmann (1992: 90, 260, 263f.) for examples. As touched on in an earlier footnote, to some extent taboo is also a factor in pronoun usage in the Germanic languages – see Howe (1996: §0.1.3) – and represents the extreme end of a scale of pragmatic factors influencing pronoun usage. It is also a factor in pronominal usage and avoidance in Japanese – for a discussion of taboo in Japanese pronouns, see Suzuki (1978: 123).

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