Nuria Hernández*

Personal Pronouns: Variation and Ambiguity

Abstract: Personal pronouns are vague and highly versatile. In addition to their canonical functions as deictics and anaphors, they can be used to express meanings that go beyond morphosyntactic mapping and feature matching. Potential ambiguity is minimised by a variety of syntactic and extra-syntactic means, including the conversational context. Disambiguation through categorical morphological distinctions is rarely needed. Different non-canonical uses that may theoretically result in ambiguous utterances are presented to illustrate how speakers embrace variable pronoun choice that eludes prescriptive isomorphism, for the sake of expressivity and pragmatic meaning. An 'Avoid Ambiguity' principle is suggested for conversation that takes account of the benefits of linguistic variability, vagueness, and the situatedness of natural talk.

Keywords: personal pronouns, language variation, ambiguity, fuzziness, vagueness, polysemy, situated meaning, pronoun pragmatics, "Avoid Ambiguity" principle, corpus linguistics

1 Introduction

This paper invites the reader on a journey to the semiosis of pronouns, rooted in the most essential properties of human language, and the role of ambiguity as a natural part of the picture. The focus will be on personal pronouns in English, the perspective will be variationist, and the general mindset will be that what is hardwired into the language system cannot be a problem for language use. Empirical results from previous research will be reconsidered, in particular my dissertation (cf. Hernández 2011, 2012), putting them into a new perspective with a focus on ambiguity. I will argue that variability is an inherent characteristic of human language naturally resulting from systemic properties, or key design features, such as arbitrariness (Hockett 1959: 34; Saussure [1916] 2011: 65ff), fuzziness and vagueness (Zhang 1998). Variability naturally facilitates variation and ambiguity. Both are regarded as positive effects since they contribute to the specifically

*Corresponding author: Nuria Hernández, Department of Anglophone Studies, Universität Duisburg-Essen, Universitätsstr. 12, 45141 Essen, Germany, E-mail: nuria.hernandez@uni-due.de

human experience of communicating through creative, expressive, indexical language use.

The aims of this paper are to show that, based on empirical observations,

– variation resulting in supposedly ambiguous linguistic output does not usually present an obstacle in natural discourse; instead, even potentially ambiguous variation can have semantic and pragmatic functions;
– potential ambiguity is minimised by syntactic and extra-syntactic means, including the conversational context;
– morphological disambiguation is rarely needed and can be considered a minor factor in pronoun choice, in contradiction to what is generally suggested in prescriptive grammar; minimal-pair examples that seem ambiguous in introspective cogitation might not be ambiguous at all to speakers in an actual conversation.

It follows that retrieval of meaning is not trivial and cannot be reduced to unambiguousness of linguistic form, e.g. via CASE marking. Information processing, including pronominal referentiality in a sentence, is situated, in the sense of acquiring meaning in relation to the system and environment, and it "cannot be abstracted and freed from its situatedness" (Rieger 2003: 359/360). Regarding analytic practices it follows that problematic ambiguity cannot be theoretically predicated on categorial oppositions but needs to be inferred empirically from the speakers' reactions in the discourse, such as an obvious need for clarification and repair.[1]

Similar to other research on personal pronoun referentiality (e.g., de Cock and Kluge 2016; Helmbrecht 2015), my research shows frequent non-canonical uses that rely heavily on context and elude prescriptive axioms of immovable isomorphism or form-function symmetry (for discussions cf. Haiman 1980; Poplack 2018). Overall, I suggest a combined approach to pronoun variation which accounts for the complexities of meaning retrieval, where avoidance of ambiguity is one of multiple factors.

After some theoretical contemplations (Section 2) and preparatory remarks on personal pronoun forms and functions (Section 3), four phenomena will be discussed that occur with a certain regularity in spontaneous discourse (Section 4). The analysis will be based on the *Freiburg Corpus of English Dialects* (FRED). 'Personal pronoun' will be used to refer to subject and object forms (S-forms and O-forms) of all PERSONs, NUMBERs and GENDERs (*I/me*, *you*, *he/him*, *she/her*, *it*,

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1 For a "new research agenda aimed at exploring the link between language complexity and variation as inherent properties of language use" cf. Gardner et al. 2021. Their corpus-based study focuses on production difficulties that trigger disfluencies by filled and unfilled pauses.

we/us, *they/them*; plus dialectal variants like *'em*). The analysis will focus on O-forms, which are functionally more versatile than S-forms (see 'Functional Diversity Hierarchy'; 'default CASE', Hernández 2012: 58; 274). All four phenomena fall outside the prescriptive canon of Standard English and they all illustrate variation in pronoun choice that can be linked to ambiguity theoretically.[2] They also reflect the close interconnectedness with the paradigm of reflexives-intensifiers, which will be referred to as *self*-forms (*myself*, *yourself*, *him-/her-/itself*, *ourselves*, *yourselves*, *themselves*; and dialectal variants thereof).

Sneak peek:

- *...she 'd got hold – to try to save* **her***, she 'd, she 'd got hold of this rail and it broke.* (O-form reflexive, FRED, LAN_006; ch. 4.1)
- *She liked a drop of wine, used to go and get* **her** *a bottle of wine, ...* (pleonastic benefactive, FRED, LND_004; ch. 4.2)
- *And the eel comes up and bites at the eels, at the worms, and then they've got their big tank* **beside them** *that they just flicks it out and the eel drops off into the bath.* (co-referential O-form in snake sentence, FRED, SOM_004; ch. 4.3)
- *And they were all to be kept, and of course* **me being** *the second oldest, the money had to come from somewhere.* (overt pronoun with dangling participle, FRED, YKS_001; ch. 4.4)

2 Variability, Variation and Ambiguity

As Evans and Levinson (2009: 429) have pointed out, "we are the only species with a communication system that is fundamentally variable at all levels". In the following, I will use *variability* to refer to the inherently variable nature of language, in particular with regard to the mapping of meaning and form. Variability is rooted in the *arbitrariness* of linguistic signs, including pronouns, and manifests itself in the semantic *fuzziness* and *vagueness* of these signs. *Variation* and *ambiguity* are defined as observable effects of variability in language use.

2.1 Variability

For a long time, variability has been recognised as an essential property of language and cognition. This does not invalidate insights on structural templates and universal traits of human language, nor does it negate the existence of 'chance' (cf.

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2 For more features that are less about ambiguity but grammaticality the reader is kindly referred to my other publications in the references.

van Hout and Muysken 2016). Rather, "[b]oth language invariance and language variability within systematic limits are highly relevant for the cognitive sciences" (Rizzi 2009: 467).[3] A comprehensive cross-disciplinary report would exceed the scope of this paper, but let me mention three examples that have inspired it. First, a formal approach to natural meaning that continues to influence research on fuzzy logic in linguistics and elsewhere is found in Zadeh (1978a, 1978b). His Possibilistic, Relational, Universal, Fuzzy representation contains "linguistically labeled fuzzy subsets of the universe, instead of sets of semantic markers under word-headings" (Rieger 1981: 198). Zadeh's description of language as a maximally ambiguous system presents a radical alternative to formal syntax. Second, Evans and Levinson have challenged decades of typological work, traditionally concerned with language universals rather than diversity, to change focus to language variation. From their cognitive science perspective, language is a "bio-cultural hybrid, a product of intensive gene:culture coevolution over perhaps the last 200,000 to 400,000 years", a dimension that is ignored in most theories about its origins (2009: 430).[4] Third, a paradigm shift has started in variationist linguistics that includes dialectological findings in typology and vice versa, drawing attention to the polylithic nature of languages (e.g., Anderwald and Kortmann 2013; Kortmann 2004; Kortmann and Szmrecsanyi 2011; compare Dryer and Haspelmath 2013, and Kortmann, Lunkenheimer, and Ehret 2020). As much as these approaches differ, they all aim to understand variability and its benefits to the language system.

2.2 Arbitrariness

In a purely linguistic perspective, the perhaps most straightforward explanation for variability lies in the core properties of language, with variability in the mapping of meanings and forms being a logical consequence of the arbitrariness of linguistic signs, in a system which "is primarily a vocal actualization of the tendency to see reality symbolically" (Sapir 1933: 159). In traditional semiotics, linguistic signs are primarily perceived as unmotivated symbols that are arbitrarily related to their referents by convention. The a priori lack of a natural connection

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3 In neurological science, variance in terms of plasticity "is thought to be balanced by mechanisms ensuring constancy of neuronal representations in order to achieve stable behavioural performance" (Clopath et al. 2017). This strongly suggests that language employs both strategies, too.

4 "Language diversity can best be understood in terms of such a twin-track model, with the diversity largely accounted for in terms of diversification in the cultural track, in which traits evolve under similar processes to those in population genetics, by drift, lineal inheritance, recombination, and hybridization." (Evans and Levinson 2009: 444).

between signifier=material form, and signified=mental concept (cf. Hjelmslev 1961; whether or not the signified is semantically discrete or fuzzy itself), and the consequential necessity of conventional determination a posteriori (cf. Levi-Strauss 1972: 91), imply a twofold variability inherent to the system that means nothing less than "the autonomy of language in relation to reality" (Chandler 2007: 28). If a property is that fundamental, any attempt from above to artificially contain its effects is futile, since the users of the system will have developed strategies to tackle the effects should it become necessary: "A language has countless methods of avoiding practical ambiguities" (Sapir 1921: 194).

In the Saussurean tradition, the notion of arbitrariness within the symbol joins the structuralist presupposition of relational and differential meaning for all entities in the system. This seems to favour a 1-to-1 relationship between form and meaning (where one form means what another does not), and the pairwise opposition of form-meaning units. While it is unclear what the 'concept' of a personal pronoun like *I* is, the sound pattern /aɪ/ is arbitrarily connected to a conceptual side that we could describe as '1st PERSON singular subject', an internally complex portmanteau morph. In the English pronominal paradigm, this would structurally contrast with *we* /wiː/ '1st PERSON plural subject', and *me* /miː/ '1st PERSON singular object', a view that remains unquestioned in formal grammar and language teaching.

However, if we decouple arbitrariness from relational meaning, the options for mapping forms and functions widen considerably. Cross-linguistically, grammatical features such as PERSON, NUMBER and CASE can be morphologically distinguished in a language to produce oppositions such as *I–me*, *I–we*, *we–us*, but this does not have to be the case. If formal distinction is missing, the exact reference of a pronoun can still be inferred, linguistically or extra-linguistically. Typological comparisons have shown that "[l]anguages differ by differentiating differently" (Passmore 1985: 24, quoted in Chandler 2007: 24), and we may add language varieties, speech communities, and individual speakers to this, too ('inter-language' variation, 'variability in the linguistic signal within a given language', and 'inter-individual' variation, cf. van Hout and Muysken 2016: 250). We may even doubt whether the most obvious formal distinctions, such as *I–me*, are what in the end leads to differentiation of meaning in context. After all, general mechanisms of language acquisition show that "a child first makes sense of situations and human intentions and then of what is said." (Edelman 1992: 245, quoted in Wierzbicka 1996: 21).[5] This allows for expressions whose contents "can

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[5] Compare the argument of Scott-Phillips and Blythe (2013: 6) who stress "that meaning is not deduced or calculated, even probabilistically, on the back of associations (be they between signal and meaning, or perhaps between signals, context and meaning), but rather it is inferred, based on

be readily recovered from the discourse or the non-linguistic context" (Lyons 1999: 30). With regard to personal pronoun forms, some languages may, for example, differentiate syntactic function by CASE, others may not. In English, standard varieties may use distinctive CASE, others may tend towards default CASE (e.g. creoles), and in a descriptive mindset we argue that all of this is licenced because it works, because reference can be inferred. Historical shifts within a language, in individual words or entire paradigms, underline the general arbitrariness. We find them in personal pronouns, too, consider Figure 3 below.

2.3 Fuzziness – Vagueness – Underspecification

While arbitrariness in the mapping of meanings and forms can be regarded as the most fundamental prerequisite for variability, meaning itself is often referred to as fuzzy or vague. This allows for the sound pattern of a word to be used, and interpreted, differently by different speakers in different contexts.

Take *we*. What, exactly, is its meaning? Even if we specify *we* as '1st PERSON plural subject', it remains unclear who, besides the speaker, *we* refers to:[6]

speaker + [addressee, one or more]

speaker + [non-addressee, one or more]

speaker + [addressee, one or more] + [non-addressee, one or more]

The meaning of *we* is unspecific. Both the exact number of referents and clusivity,[7] i.e. inclusion or exclusion of the addressee(s), are defined by the general context, specifications in the co-text, or para-linguistic means such as pointing that restrict the options until reference is clear.

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the receiver's beliefs about the signaller's intentions" and that "[t]his inference is […] made possible by metapsychology." Also Evans (2006): "intentionality and the ability to recognize communicative intentions are likely to have been necessary prerequisites for the evolution of symbolic representation in language."

6 Compare Goddard (1995: 100) with reference to traditional proposals by Zwicky (1977), Ingram (1978), Greenberg (1988). Based on Wierzbicka, Goddard offers a critical 'semantic primitives' view on conventional categories such as PERSON and NUMBER.

7 Of the 200 languages listed in the *World Atlas of Language Structures* for the feature 'inclusive-exclusive distinction in independent pronouns' 94% possess a distinct 1PL form 'we', 5% have an identical form for 1SG and 1PL, and 31.5% have an inclusive-exclusive distinction (Cysouw 2013).

(1)   *We are leaving.*   … *but you are not.*
                         We two are leaving.
                         … *with our wives.*
                         (Matthews 2001: 146–7)

The only constant in the combinations mentioned above is 'speaker', which is the only referent left in the singular uses of *we/us* found in some dialects (*Give us a kiss*),[8] as well as the pluralis majestatis or editorial *we* (for 'phoney inclusive' *we* cf. Zwicky 1977: 716). Whether such uses are found or not depends on whether the respective variety or context (register) also allows for *we* to refer to the speaker only, in other words whether *we* can have the meaning 'speaker [+…]'.

Diachronically, the variability of linguistic forms facilitates semantic shifts over time. Take *you*, where the original NUMBER distinction between Old English *thou/thee* (SGL) and *ye/you* (PL) developed into a politeness distinction during Middle English (Figure 3). Subsequently, the polite forms became dominant, and object *you* started taking over the subject domain (Hernández 2012: 25). What we have nowadays is one highly unspecific form *you* which may refer to one or several referents, different grammatical CASEs, and is no longer used to mark polite address. In addition, the two Old English dual forms *wit* 'we two' and *ġit* 'you two' were also lost (cf. Mitchell 1985: 110).

Fuzziness and vagueness have been recognised as "just as important as precision in language" (Zhang 1998: 13). As regards personal pronouns, the different terms are not applied easily, not least because of inconsistencies in the literature (see Zhang 1998 for details). A brief calibration will give us a better grasp of pronoun meaning.

'Fuzziness' generally refers to referential opacity, meaning that a specific form has no inherent "clear-cut referential boundary" and may therefore not be "contextually eliminated" (ibid., p. 13), as in *about*, *rather*, *few*, or nouns like *cup* or *bird*. The classification of fuzzy items cannot be categorial but is based on degree of membership or proximity to the core member of a set, as in Fuzzy Logic or Prototype Theory. Strictly speaking, the aspects discussed for *we* and *you* above, do not fall under fuzziness, but we can regard any personal pronoun as "a summary of a complex, multifaceted concept which is incapable of precise characterization" (Zadeh 1978a: 397). We may define *we* as '1st PERSON plural subject', but since the meanings of PERSON, 'plural'/NUMBER, and 'subject'/CASE are fuzzy, the meaning of *we* necessarily remains fuzzy, too. In addition, in impersonal generic uses, forms like *they* may refer to "an unspecific indefinite group of people", as in

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8 See Kortmann, Lunkenheimer, and Ehret (2020), feature 29.

They are going to raise the taxes (Helmbrecht 2015: 179), without any intent to specify.

'Vagueness', on the other hand, is found in polysemous or unspecific expressions that allow different interpretations, as in *good* meaning 'well-behaved' or 'hard-working' or 'healthy'. Vagueness possibly "reduces the memory demands of storing a lexicon", and it facilitates re-use of easy-to-process forms (cf. Piantadosi et al. 2012: 282, with reference to Wasow, Perfors, and Beaver 2005). Personal pronouns are vague.[9] They do not refer to one specific referent but can be used for all entities that meet certain criteria, which makes them highly economical. Unlike fuzziness, vagueness can be eliminated contextually by interpretation. Consider the example *Elizabeth married last Tuesday. He is Italian.*, where *he* "delimit[s] the range of possible referents" to 'one male person' and its connection to the previous sentence is inferred from co-text (*married*) and world knowledge ("marrying is a ceremony between two persons"). Consequently, *he* refers to Elizabeth's husband (Wiese and Simon 2002: 3). The notion that "context is informative about meaning" has also been predicted and tested in an information-theoretic perspective by Piantadosi et al. 2012. They consider language "as a cognitive system designed in part for communication" (p. 290), and variability in the mapping of forms and meanings as a result of "ubiquitous pressure for *efficient communication*" (p. 282; italics in original).[10] According to their research, "any system which strives for communicative or cognitive efficiency will naturally be ambiguous" (p. 282), hence vagueness has a clear cognitive and communicative function.

A final concept that I would like to comment on briefly is 'underspecification'[11] as used in generative accounts of φ-features like PERSON, NUMBER, GENDER, CASE, which form part of agreement. In his study on personal pronouns, for instance, Carvalho (2017: 43) argues against a view of referential expressions as feature bundles, since "some φ-features are not sufficient to capture all of the information a pronoun carries".[12] He finds that traditional rules for the distribution of pronouns, in particular their definition by CASE form, cannot be generalised. His object language, Brazilian Portuguese, "utilises the nominative form of the pronouns in all syntactic positions", pointing towards "a mismatch between the traditional pronominal paradigm based on case for determining the distribution of

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9 Polysemy has been shown to apply to function words cross-linguistically, cf. Brown (1985); see Falkum and Vicente (2015) for a review of current perspectives on polysemy.

10 Piantadosi et al. 2012: 280) define 'ambiguity' as "functional property of language", not as effect in language production.

11 Or 'deficiency', cf. Cardinaletti and Starke (1999).

12 For example, *a gente* 'we' which can be 1PL or 3PL depending on the context (Carvalho 2017: 43–4).

pronouns and the true demand for such a distribution" (id.). The solution seems straightforward. Variation in the use of referential expressions is explained by underspecification of features available in the inventory of their set. Pronoun *I* unambiguously refers to the speaker, not because of its opposition with *you*, but because it is underspecifed with regard to PERSON (therefore speaker by default) and NUMBER (therefore singular by default). However, such approaches still describe pronoun choice as internally determined by their morphosyntactic features (cf. Harley and Ritter 2002b), which fails to account for uses like the ones we will see in Section 4.

2.4 Variation and Ambiguity

The properties discussed above naturally lead to variation and ambiguity in language use – variation being the "one-to-many mapping between meaning and form", and ambiguity, as the logical transposition of variation, being the "one-to-many mapping between form and meaning" (Anttila and Fong 2004: 1253). Both phenomena are naturally rooted in the general variability of language, occasioned by the arbitrary relationship between meaning and form. Figure 1 shows 3SGf pronoun *her* used in subject and reflexive functions.
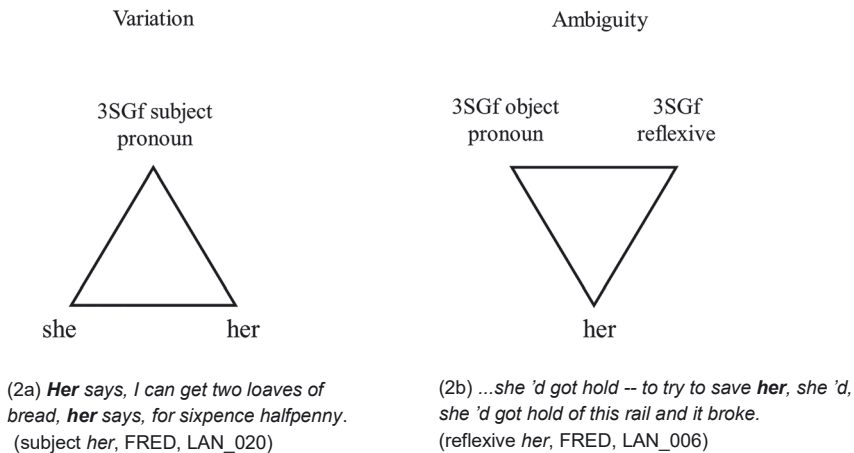

Variation   Ambiguity

3SGf subject pronoun   3SGf object pronoun   3SGf reflexive

she   her   her

(2a) ***Her*** *says, I can get two loaves of bread,* ***her*** *says, for sixpence halfpenny.* (subject *her*, FRED, LAN_020)

(2b) *...she 'd got hold -- to try to save* ***her****, she 'd, she 'd got hold of this rail and it broke.* (reflexive *her*, FRED, LAN_006)

Figure 1: Patterns of variation and ambiguity, adapted from Anttila and Fong (2004: 1253).

While the use of *her* in (2a) presents a syntactically unambiguous case of S preceding V, its use in (2b) is theoretically ambiguous, since the pronoun may refer anaphorically to *she* or non-anaphorically to another 3SGf referent. A quick look at

 […]
<u LanD1P> #And eh, the first time -- and this was at Whitsuntide — uhm, they took me around to mi grandma's, [...] #Now when I was a little girl, on the top of the landing here, there were some rails.
{<u IntER> Yes.}
<u LanD1P> #Now she were carrying me down when (trunc) we- (/trunc), when I were a baby.
{<u IntER> Yes.}
<u LanD1P> #Down (unclear) the (/unclear) stairs.
{<u IntER> Yes.}
<u LanD1P> #She tumbled down them.
{<u IntER> St, st,st,st,st.}
<u LanD1P> #How it were, how it were, she 'd, she 'd, she 'd got hold -- to try to save **her**, she 'd, she 'd got hold of this rail and it broke.
{<u IntER> Oh!}
<u LanD1P> #And it threw her down the stairs. #She hurt her breast. #But she saved me.
 […]

Figure 2: Nonstandard *her* in context, excerpt of FRED transcript.

the data shows that in this example, *her* is actually used anaphorically, i.e. reflexively co-indexed with *she*. Its meaning becomes clear from the context (Figure 2).

Dealing with variation and ambiguity is something that naturally forms part of language use as symbolic behaviour. In the words of Susanne Langer (1953, in Langer 2000), "[t]he process of transforming all direct experience into imagery or into that supreme mode of symbolic expression, language, has so completely taken possession of the human mind that it is not only a special talent but a dominant, organic need. […] It seems to be what [our] brain most naturally and spontaneously does." Treating variation and ambiguity as a problem that needs to be avoided would not only underestimate the language users' abilities of symbolic expression and understanding, which make disambiguation unnecessary in utterances like (2b). From macro-level typological differences to instantiations of the same language by different speakers, and on all levels of language – variation is nowadays acknowledged as *orderly* and *functional*, as opposed to random and dysfunctional. Variationist studies of the last decades have consolidated the notion of "orderly heterogeneity" in the multi-user system (Weinreich, Labov, and Herzog 1968: 100; or "normal heterogeneity", Labov 1982: 17; cf. Tagliamonte 2006: 5). In connection with geographical, social and situational variables, variation and ambiguity have been recognised as force in the expression of group and personal identity, stylistic practice (cf. Eckert 2012), and production of humour

(in cases of deliberate ambiguity, cf. Grice 1975: 54; Yus 2017). The possibility to make linguistic choices is what makes language an essentially indexical "creative effort" (Sapir 1921: 2), and vice versa. Indexicality, expressivity, pragmatic implicature – any fundamentally inferential mechanisms that are considered the essence of what is 'human' in human language require freedom of choice and freedom of interpretation in the first place. In the words of Levinson (2000: 29), "linguistic coding is to be thought of less like definitive content and more like interpretive clue." Ideas of form=function isomorphism infringe on language as a creative, social tool.

3 Personal Pronouns: Forms and Functions

One of the most nuanced accounts of pronouns has been offered by Bhat (2004).[13] His book-length treatment goes far beyond the traditional definition of 'pronoun' as a word that stands for a noun, or noun phrase (cf. Lyons 1968) – a characteristic true for some pronouns like demonstratives (*I love that!*) but not for personal pronouns. The traditional definition falls short in multiple respects. For one thing, it is not clear what 'standing for' means, and even if we stick to this formulation, "words that are generally included under the category of pronouns do not together form a single category" (Bhat 2004: 1). As regards personal pronouns, it has been widely recognised that they perform discourse functions that are different from the functions of other pronouns. This has led to either renaming the traditional term altogether as 'pro-form' (e.g., Quirk, Greenbaum, and Leech 1985) or distinguishing two separate lexical categories 'personal pronouns' versus 'pro-forms', as suggested by Bhat (2004). The wish to categorise persists[14] but is complicated by the fact that, even among free-standing[15] personal pronouns like the ones found in English, functions differ between 1st/2nd PERSON *I/me, you, we/us* and 3rd PERSON forms *he/him, she/her, it, they/them*. While the former have been described as semantic primitives[16] and deictic expressions "that have the denotation of speech

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13 See *The Routledge Handbook of Pronouns*, Paterson (ed., forthcoming).

14 Bhat (2004) mentions Prototype Theory as an alternative but does not pursue it further.

15 Bhat (2004: xi) mentions the need to "differentiate between languages in which the primary function of personal pronouns is carried by their *bound* forms [clitics or affixes], and the ones in which it is carried out by their *free* forms" and that he himself was not able to give a satisfactory characterization that would take into account this structural distinction.

16 Wierzbicka (1996: 37): "no known language fails to make a distinction between the speaker and the addressee".

roles as their primary function" (ibid., p. 273), the function of 3rd PERSON pronouns is "the semantic one of picking out a referent" (Adger and Harbour 2008: 16; cf. Zwicky 1977: 16, for '3rd PERSON' as "non-PERSON").[17]

As we will see below, these definitions miss a pivotal point: they do not cover the variation and ambiguity observed in everyday speech. If we look at the standard paradigm of present-day English we see little vagueness: pronominal subjects have subject forms (*I, he/she, we, they*) and pronominal objects have object forms (*me, him/her, us, them*). Formal CASE distinction is only missing in *you* and *it*. Reflexivity is encoded by a different set that I refer to as *self*-forms (*my-/your-/him-/her-/it-self, our-/your-/them-selves*) to encompass their reflexive and emphatic functions.[18] Polysemy across categorial boundaries is only found in *her*, which is both '3rd PERSON singular feminine object' and the feminine possessive determiner.

The picture changes if we look at the use of personal pronouns in vernaculars, which have a variable use of CASE forms (consider Pronoun Exchange as seen in examples (3)–(10).[19] Variation in NUMBER is found, too, including the use of 1SG *us* mentioned above, or the use of third plural forms *they/them/themselves* with singular referents. The functions of such nonstandard uses are diverse. Colloquial 1SG *us* has a long history dating back to Old English, where *us* "carried connotations of authorship and majesty", but also modesty. Nowadays, *us* "makes requests, in particular, sound somehow more friendly and familiar. On the phonological level, the de-stressed pronoun, which is often pronounced /əs/, has weakened to the point of becoming enclitic, supporting the alleged modesty or reservedness of the speaker." (Hernández 2012: 64). It is hard to imagine how the

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17 1st/2nd versus 3rd personal pronouns have even been argued to belong to different syntactic categories (cf. Déchaine & Wiltschko 2002), but see Rullmann (2004) for a counter-argument.

18 I have elsewhere highlighted the ability of *self*-forms to take on non-reflexive and non-emphatic meanings (Hernández 2002) and their role in Pronoun Exchange, which in the literature is usually restricted to personal pronoun forms (Hernández 2012:134). *Self*-forms have been included in 'personal pronouns' by Young (1984) and Huddleston and Pullum (2002), or have been regarded as forming part of a central or primary pronoun category in the well-known grammars of Quirk and Greenbaum (1984), Quirk, Greenbaum, and Leech (1985) and Greenbaum (1996).

19 In my previous research CASE was found to be the most variable morphosyntactic category, in accordance with the scientific literature and typological preferences, including but not limited to studies on φ-features that attribute the different features different grammatical status (e.g., the typological study of Noyer 1992; the feature sets in Dalrymple and Kaplan 2000; the feature geometry in Harley and Ritter 2002a, 2002b; the feature hierarchy Carminati 2005; the different contributions in Harbour, Adger, and Béjar 2008; Helmbrecht 2015 with a focus on non-prototypical uses and their effect on historical developments; and Zawiszewski et al. 2016 in a neurolinguistic study of responses to φ-feature violations).

non-canonical use of 1SG *us* could be ambiguous in an empirical context.[20] Variation in GENDER is found in gendered pronouns, where 3SGm or 3SGf forms are used to refer to non-human animate or inanimate entities, pointing towards speaker viewpoint, referent topicality and the speaker's emotional attachment to the referent (cf. Hernández 2012; *Well, like if you picked one [an apple] and cooked **it** early **he** isn't same as when **he**'s been picked and kept, is **he**?*, FRED, SOM_013). The use of 3SG *they/them/themselves* offers a GENDER-neutral alternative, which in the light of the growing discourse on GENDER-neutral expression has acquired a considerable socio-political load.[21] A look across different pronoun categories shows that, while vagueness is accepted with no ifs and buts in the case of standard *her*, additional vagueness in vernaculars is often stigmatised, such as the use of possessive *us* in British vernaculars (*we used to have us own in the garden*, FRED LEI_002), or demonstrative *them* in many varieties around the world (e.g., *in them days*). The general acceptance of possessive *her* but stigmatisation of possessive *us* is based on conventions (despite possessive *her* potentially causing ambiguity, see Zwicky and Saddock's well-known example *They saw her duck* (1975: 11)). The double standard has no language-internal motivation.

Based on these considerations, personal pronouns will not only be regarded as deictics,[22] i.e. "linguistic expressions that refer to the personal, temporal, or spatial aspect of any given utterance act and whose designation is therefore dependent on the context of the speech situation" (Bußmann, Trauth, and Kazzazi 1996: 285), but as potentially indexical, i.e. symptomatic, of pragmatic meaning. The meaning of a specific pronominal form in context may go considerably beyond syntactic mapping, i.e. beyond "pronoun assignment [as] a search process based on feature matching" (Smyth 1994: 201). The concrete form or position that a personal pronoun takes in discourse does not alter its most basic deictic or referential function but it may be motivated by additional, indexical layers (also see the contributions in Gardelle and Sorlin 2015).

Several phenomena that are still banned from Standard English under the argument of causing ambiguity will now be discussed. They show multifaceted meanings that are not usually included in definitions of personal pronouns and a general variability that raises the question whether vague forms actually lead to ambiguity at all in real-life contexts.

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20 Imagine a grandmother telling her grandchild "*Give us a kiss!*" Open arms, gaze, previous experiences and the child's accumulated linguistic understanding would facilitate an unambiguous interpretation of 1SG *us*, whether other potential kissees are nearby or not.

21 Epicene singular *they* has been in the language since the fourteenth century (cf. Balhorn 2004).

22 Also 'shifters' (Jespersen, cf. Fludernik 1989/90), 'indexical expressions' (Bar-Hillel 1954), 'shifting labels' (Aarts, Denison, and Keizer 2004). For a discussion on deixis and indexicality, cf. Brandt (2016).

4 Outside the Canon

The four phenomena discussed in this chapter revolve around the highly versatile use of O-forms in English vernaculars. We will see that performance data provide a strong empirical argument against a form=function isomorphism, i.e. against a monosemous use of personal pronoun forms. The argument is supported by the fact that the English paradigm is characterised by a diachronically stable embracement of vague forms, as seen in Figure 3. Vagueness, in the sense of polysemy, is found in all of the pronouns, either across CASE (highlighted in blue) or across PERSON, NUMBER or GENDER (yellow), or across both. It affects over 35% of all forms in Figure 3 (40 out of 113). In addition, there has always been variation, in the sense of coexistence of forms with the same meaning, e.g. in the Middle English '3PL NOM'. The multiple variants of present-day English vernaculars are not listed here but some can be seen in the examples below.

Instances of Pronoun Exchange, where personal pronoun CASE forms (including *self*-forms) variably encode subject-related and object-related functions, can be easily decoded based on syntactic position and are thus unlikely to

Figure 3: Vagueness in personal pronouns from Old to Modern English (across CASE blue; across PERSON/NUMBER/GENDER yellow; across both yellow + blue; dual forms excluded; adapted from Hernández 2012: 299–300).

cause problems of ambiguity. In the analysis, we will therefore only look at O-form reflexives like the one shown in (8). Here are some examples of Pronoun Exchange:

(3)   …*so he told **I** he'd give **I** the sack, **I** and my father* (S-form simplex and coordinated objects, FRED, WIL_009)

(4)   *All sorts of long vases, I can show you some of **they**, I got photographs here.* (S-form prepositional complement, FRED, SOM_009)

(5)   …*well **us** used to be shoved out there Saturday afternoons and go pictures and when **us** come out of there first place **us** went was to the Island because the pictures **we** saw was cowboys*… (O-form and S-form subjects, FRED, DEV_008)

(6)   … *I 'll have an echo-sounder. But Abey and **them** had wireless, which was better really*… (O-form coordinated subject, FRED, SFK_010)

(7)   …*the first lad as I seen down on this green was in was in with pony, and he – used to have a pony and run round, you know, didn't **him***? (O-form subject in question tag, FRED, OXF_001)

(8)   *Jack said, No, no, he said, You know this is young Mr Tipps, singing, Jack shook his head, No, he said, That isn't me. No, he said, That isn't me. Now he couldn't recognise **him** [himself], he wouldn't have it!* (O-form reflexive, FRED, CON_006)

(9)   *I know as a boy I 've seen them around here, my granny and **himself** would get a big chunk of beef*… (*self*-form coordinated subject, FRED, CON_006)

(10)   *And there's a story to this. Might interest **yourself**.* (self-form object, FRED, LAN_012)

          (Note that no S-form reflexives were found in the data, which tallies with earlier stages of English and typological tendencies.)

Clearly, in English personal pronouns, variation and ambiguity have never been an exception. The acceptance of historically evolved polysemy in standard uses (*you*, *her*, *it*) conflicts with arguments against variable usage in vernaculars based on the supposed usefulness of categorical distinctions. In the following, I argue that speakers in spontaneous conversation mark distinctions in meaning much less frequently than we might expect. Coreferentiality and agreement seem to get inferred from syntax and context rather than morphological form. Instead,

speakers throughout the corpus seem to follow a least-effort principle that I have previously called 'Avoid Ambiguity' (Hernández 2012: 147). This is a revised version:

> 'Avoid Ambiguity'
>
> Avoid problematic ambiguity if ambiguity cannot be resolved contextually. If disambiguation is not required avoid additional effort to disambiguate.

'Problematic ambiguity' would be cases that cause trouble at talk, such as mis-understandings or unfeasible meaning retrieval. 'Disambiguation' refers to morphological form if categorical distinctions are available. 'Context' includes co-text and syntax, and 'additional effort' alludes to prototypical choices, i.e. what the speaker would 'normally' use if disambiguation was not required. This last point, in turn, includes multiple factors that correlate with pronoun choice beyond syntactic determinants, such as diatopic preferences, emphasis, collocational effects, avoidance and hypercorrection, as well as speaker-specific preferences (for a full elaboration see Hernández 2012: 281ff).

All phenomena discussed in the following are general features of spoken British English that showed no considerable regional or gender preferences. The data are the oral history interviews of the *Freiburg Corpus of English Dialects* (FRED, British English), which took place face-to-face in private settings, mostly the speaker's home. In all interviews there is a free development of topics related to the speakers' lives, hence we are looking at spontaneous speech with a high degree of conceptual orality and proximity and minimised impact of observer's paradox and hyperadaptation (cf. Koch and Oesterreicher 1985; Labov 1972; Trudgill 2004: 62). Since no diatopic or sociolinguistic investigation is intended, only the filename will be given for each example, e.g. (FRED, LAN_006) which is interview no. 6 from Lancashire. For more details on dialect areas, speaker variables, data elicitation and tagging the reader is kindly referred to the corpus manuals (Hernández 2006; Szmrecsanyi and Hernández 2007).

4.1 O-Form Reflexives

The alleged opposition of personal pronoun forms and *self*-forms has been widely discussed in connection with generative constraints. While it may seem that examples like (2b) contradict the famous Chomskyan Principles A and B for government and binding of anaphors versus pronominals (A: "An anaphor is bound in its governing category."; B: "A pronominal is free in its governing category.", (Chomsky 1981: 188), the crux are not the principles themselves but the fact that

'pronoun' is usually equated with personal pronoun form (*She$_i$ tried to save her$_j$*), and 'anaphor' is usually equated with *self*-form (*She$_i$ tried to save herself$_i$*). The pitfall, one could argue, does not lie in the binding principles (i.e. in the Logical Form or semantics of the utterance) but in the phonetic realisation (i.e. spell-out to Phonetic Form) if an invariable 1:1 mapping of form and meaning is presupposed. This has led linguists like (Huang 2000: 22) to state that the "distributional complementarity between anaphora and pronominals […] seems to be a genera-tive syntactician's fantasy world." If we were to drop the idea of isomorphism, however, non-standard uses like (2a) and (2b) could be reconciled with binding principles. This is important since, after all, variation and ambiguity "lie very much in the core grammar and cannot be relegated to the periphery as exceptions" (Anttila and Fong 2004: 1253). The *her* in (2b) is bound and coindexed with *she*, hence a proper anaphor in Chomskyan terms. Taking into account the syntax and the preceding co-text – which portrays 'grandma' carrying the 'baby' down the stairs, with no other person in the picture – its meaning is unambiguously reflexive even if it does not have the standard reflexive form. Judging by the undelayed reaction of the listener and the absence of conversational repair, if ambiguity was felt at all, it was no trouble.

No matter how reasonable minimal-pair examples may seem that suggest a necessity for disambiguation (*She$_i$ tried to save her$_j$* vs. *She$_i$ tried to save herself$_i$*), they do not reflect the reality of language use, where pronominal forms regularly cross the standard categorial boundaries. This has been acknowledged in terms like 'refunctionalization' (Lass 1990), 'functional reinterpretation' (Howe 1996) and 'transcategorization' (Ježek and Ramat 2009), however, none of these terms resonates with our considerations above. In order to disengage from preset cate-gories, and the need for categorisation altogether, it suffices to refer to functional variability and vagueness.

The use of O-form reflexives predates the spread of *self*-forms for disambigu-ation in Old English, where reflexivity could be encoded by both simple O-forms and personal pronoun + *self* combinations:

(11)   *swa hwa swa eadmedaþ* **hine**
         'whoever humiliates himself' (Faltz 1985: 239)

(12)   *Judas$_i$ gewræc* **hine selfne$_i$**.
         'Judas punished himself' (König and Siemund 1997: 104)

The situation in Old English contrasts with present-day Standard English but is similar to what we still find in vernaculars. While the overt marking of disjoint reference by *self*-forms is common, O-forms account for almost 4% (15/403) of all reflexives in the corpus. Despite the reputedly stronger need for disambiguation in

3SG cases (e.g., König and Siemund 1997: 102), O-form reflexives were found in all PERSONs and NUMBERs. None of those uses posed an observable problem at conversation (previous examples repeated for convenience).

(2b)*   …*she 'd got hold – to try to save **her**, she 'd, she 'd got hold of this rail and it broke.* (FRED, LAN_006)

(8)*   *Jack said, No, no, he said, You know this is young Mr Tipps, singing, Jack shook his head, No, he said, That isn't me. No, he said, That isn't me. Now he couldn't recognise **him** [himself], he wouldn't have it!* (FRED, CON_006)

(13)   *Mind you I was a bit on the safe side, I put a rope round **me** just, to tension up…* (FRED, YKS_001)

(14)   *Well, Boss lived in the houses at the back. He used to use this towel the one week and the next week he had the tail of a shirt for drying **him** on.* (FRED, SAL_013)

(15)   *I used to have to change **me** for afternoon.* (FRED, SAL_028)

(16)   *She liked a drop of wine, used to go and get **her** a bottle of wine, …* (FRED. LND_004)

The observation that "[m]any languages lack reflexive pronouns entirely and simply use personal pronouns in their place" (Kiparsky 2002: 203) shows that overt disambiguation via an additional reflexive paradigm is not mandatory. In a language like English, ambiguity is partly absorbed linguistically by the grammaticalisation of word order, which facilitates the mapping of syntactic function through syntactic position. More importantly still, referentiality is most likely established through "logical connections between the sentence components (e.g. cause and effect)" and contextual cues (Hernández 2012: 148). Interestingly, too, in about half of the cases in FRED the O-form follows a verb which is intransitive or monotransitive in Standard English, as seen in (15) and (16). Such pleonastics are further discussed in the next section.

4.2 Pleonastic Uses

What makes cases such as (15) and (16) especially intriguing is that, while the use of an O-form instead of a *self*-form may cause ambiguity, the fact that an additional, pleonastic reflexive (15) or benefactive (16) is used at all instead of zero may

enhance disambiguation by specifying the directedness of the verb (here *change* and *get*). Another such case is shown in (17), where more co-text is needed to see that 'turn around' in its intransitive meaning is used pseudo-reflexively with pleonastic *them*. Once the event is pictured, there is no mistaking *them* for anything else than those horses.

(17)   *And uh he [the driver] went out and sure enough, when he got out, he could
         hear the [horse] bus was going away, you know in the distance, like, and he
         took off to run now, 'course he couldn't catch them.* […]
         {<u IntAS> Gracious! But did they have passengers?}
         *<u CAVA_WW> No, no no-one in 'em. […] And the horses was called Nancy
         and Nimrod. […] and anyhow they turned **them** around, and somebody was
         up the stables and they knew where they were and they went back, met the
         old man coming a-puffing and blowing* … (FRED, CON_006)

Pleonastic reflexives function as "markers of derived intransitivity" (Hernández 2012: 194), i.e. non-referential forms "with the function of intransitivizing otherwise transitive predicates" (Siemund 2003: 490). In the data, they represent a supraregional feature used by over 18% of the speakers. An overall 52 cases showed a preference for *self*-forms (88.5%), but the use of O-forms (11.5%) continues since Old English (Mitchell 1985).

    Most commonly, the pleonastic reflexives in our data appear after verbs of grooming like *wash* or *dress* (37%). According to Faltz (1985: 243), this makes sense considering that, for such verbs, an unmarked reading would be self-directed, whereas the prime historical motivation for intensifiers to be grammaticalised as reflexives in English is "because reflexive coreference is normally the marked case". Consequently, O-form pleonastic reflexives – in addition to possibly specifying the directedness of the verb – represent an extenuated signal of co-referentiality, based on their syntactic position and less marked form.

    Pleonastic benefactives (also 'benefactive datives', cf. Siemund 2003: 492) as in (16) or (18)–(20) are not strictly speaking reflexive. Rather, the subject is the beneficiary of the action it performs. In the corpus, they are mostly encoded by O-forms (20, as compared to five *self*-forms).

(18)   *I was standing there having **me** a drink and I didn't know who he was, and I
         said to the landlord afterwards, I said, Who is that gentleman?* (FRED,
         SAL_013)

(19)   *…he was half-way through mi hair and he popped in and had **him** half a
         pint, and he didn't finish mi hair.* (FRED, SAL_037)

(20)   *or …and up jumped the pike, have* **him** *a meal if he could get one* (FRED, SAL_021).

From a normative perspective, they cause ambiguity when added to a transitive verb like *get* as in (16), and they are ungrammatical when added to a mono-transitive verb such as *have* in (18)–(20). However, pleonastic benefactives are licenced by their pragmatic force: they are used to express the speaker's attitude towards the proposition or referents described (cf. Hernández 2012: 199ff), commenting, for example, on the speaker's unmindfulness (18), the hair-dresser's behavior (19) or the pike's voracity (20). Even in cases like (16), this specification seems to outweigh any potential ambiguity.

4.3 Snake Sentences

Variation between O-form and *self*-form reflexives is also found in so-called snake sentences like *Mary$_i$ saw a snake near her$_i$/herself$_i$* or (13) after prepositions indicating a location relative to the subject (Jespersen 1949: 165–167; Koktova 1999: 252; Haspelmath 2008: 55; Huang 2000: 23). In such sentences the overt marking of co-referentiality by a morphologically explicit reflexive is often considered optional. It has been argued (cf. Faltz 1985: 102) that the variation in form could be attributed to an ambiguous syntactic interpretation of the locative PP as part of the main clause (*Mary saw a snake near herself*), or as a reduced relative clause (*Mary saw a snake [that was] near her*), in which case overt reflexivisation would be prevented by the binding rules quoted above (for further arguments see Kiparsky 2008).

While such a mechanism is imaginable, discourse-oriented approaches have proposed explanations that make just as much sense. They shift the focus to the speaker-referent relation showing that morphological variation can be used to reflect the speaker viewpoint, the antecedent "being asserted to be involved in the recognition of the co-reference" (Cantrall 1973: 46–47), or the speaker's empathy, i.e. "the speaker's identification, which may vary in degree, with a person/thing that participates in the event or state that he describes in a sentence" (Kuno 1987: 206). In the approach of (Zribi-Hertz 1989: 711), the pronoun would agree with the 'subject of consciousness' (not the syntactic subject), i.e. the "referent whose thoughts or feelings optionally expressed in speech, are conveyed by a portion of the discourse." This could explain the O-form in (21) where 'they' are described from an outside perspective, but it is difficult to maintain for the other examples.

(21)   *And the eel comes up and bites at the eels, at the worms, and then they've got their big tank **beside them** that they just flicks it out and the eel drops off into the bath.* (FRED, SOM_004)

(22)   *And Fred he'd they'd always got a mechanic **round them**…* (FRED, NTT_014)

(23)   *Well, you just picked them up and put them **in front of you**, and went round.* (FRED, CON_011)

(24)   *When we came out, you couldn't see your hand **in front of 'ee** 'cause 't was so dark.* (FRED, SOM_032)

(25)   *You had to, you used to do your own safety work, do your own timber. […] you used to throw so much coal off the [coal] face, take that bit of coal off, and you used to timtimber up **in front of you**, and you used to go a bit further in and take a bit more coal out, then timber again…* (FRED, DUR_001)

(26)   *I had crowds **around me**, I couldn't half belt them.* (FRED, DUR_003)

(27)   *I remember her coming from Little Ness and bringing her gardeners **with her**. There was two or three gardeners she had, and a chauffeur. She brought a forester **with her**; his name actually was Forester…* (FRED, SAL_004)

(28)   *Well, we had a cow dog **with us**, called Sharpy…* (FRED, SOM_011)

Similarly, the findings of König and Siemund (1997: 103) for *self*-forms as disambiguation devices are difficult to transfer to our data. They have argued that morphological marking in snake sentences reflects semantic distinctions in verbs, as in *Mary put the book behind herself* (other-directed meaning of *put* requires specification of self-directedness) versus *Mary put all problems behind her* (self-directed meaning of *put* requires no marking).

In a nutshell, the different functional approaches argue that "it is the structural properties of pronouns that are, in a sense, derived from their discourse properties" (Zribi-Hertz 1989: 705). But in these frameworks, too, disambiguation or specification is realised through categorical morphological distinction. This is only partly supported by our data, e.g. for viewpoint in 3rd PERSON examples such as (21) and (22), but not in (13) or (23)–(26) (although a more detailed discussion of the meanings of *round* would be interesting). Nor is it supported by the naturally self-directed cases in (27)–(28). Once again, the results show a rare need for morphological distinction if pronoun reference can be inferred from the context.

4.4 Dangling Participles

The last phenomenon we will look at is the use of overt pronouns in so-called 'dangling participle' constructions like (29a), where the implicit subject of the participle differs from the subject of the main clause.

(29a)   *Being the second oldest, the money had to come from somewhere.*

The potential ambiguity caused by this construction and its increased processing effort is felt in both prescriptive grammar and real speech, but the solutions differ fundamentally. Formal language guides deem dangling participles unacceptable and advice language users to avoid or rephrase them. A sentence like (29a) could be recast syntactically into a standard sentence with a complete subordinate clause, so that the overt subjects of both clauses are easily identified:

(29b)   *Since **I** was the second oldest, **the money** had to come from somewhere.*

In vernacular speech, on the other hand, speakers often stick to the participle construction by adding an overt subject before V-*ing*, mostly an O-form.[23] The additional pronoun reduces the processing effort and resolves any potential ambiguity.

(29c)   *And they were all to be kept, and of course **me** being the second oldest, the money had to come from somewhere.* (FRED, YKS_001)

If we compare the two strategies – rephrasing (29a) to (29b), as opposed to adding *me* in (29c) – the second seems less costly. In the data, it was also found in a surprisingly large number of utterances with '*with* + pronoun + V-*ing*' constructions, such as (31) and (32), which account for 43% of all cases (23 out of 54). The following examples show once more how an overt pronominal subject can reduce ambiguity, especially where the subsequent co-text contains more than one potential co-referent:

(30)   *And **me** being a lad, mi father had learned me how to catch moles*… (FRED, WES_017)

(31)   *She would always, and with **me** being ginger, she always made me yellow.* (FRED, LAN_005)

(32)   *And, o'course, wi' **me** bein' below they used t' know exactly what t' do*… (FRED, SFK_006)

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23 In FRED O-forms were the default option (not including *you* and *it*), with 51 out of 54 pronominal subjects (94.4%), the remaining three were S-forms.

(33)   …***him*** *living there, they* […] *got him to do all the boatin'*… (FRED, KEN006)

Finally, pleonastics also facilitate the contrastive interpretation of split subjects:

(34)   …***her*** *bein' the eldest, and* ***me*** *bein' the youngest, we had to bring, we had to help all the family kind of thing*… (FRED, LAN_012)

5 "Avoid Ambiguity"?

This paper explored the systemic properties of language as reflected in pronoun use, under the assumption that the variation and ambiguity found in real conversations is unproblematic in the deduction of situated meaning. Pronouns were described as fuzzy, vague items whose exact function in an utterance is inferred combinatorially from their morphology (PERSON and NUMBER being more sturdy than CASE), grammaticalised word order (in English), logical connections between sentence components, and the linguistic and extra-linguistic context. A theoretical and empirical argument was presented that showed personal pronouns (O-forms) in formal variation and polysemous use, supported by historical and typological evidence that variability in pronouns is neither new nor rare. Insights from language acquisition studies support the view that the acquisition of categorical assignment rules is "to a large extent a conscious process" (Tieken-Boon van Ostade 1994: 226), which means that variation and ambiguity "form part of the language naturally" (Hernández 2012: 18). Despite linguistic means, formal disambiguation is used much more rarely than one might expect. Even categorical distinctions proposed in discourse-oriented approaches are difficult to confirm. This does not mean that categorisation is absent in vernaculars, but categorisation from above that selectively stigmatises pronoun variability doesn't fit the data.

    Empirical examples suggest divergent linguistic needs for conversation that is spontaneously processed and contextually embedded. While prescriptivism continues to follow the axiom of 'disambiguate wherever possible; if not possible, rephrase', in spontaneous talk disambiguation via word form takes place where needed, a tendency described as "Avoid Ambiguity" principle. What is more, ambiguity may even be produced intentionally if additional functional layers outweigh the effort of processing or the risk of misunderstanding. Functions pointed out in this paper (many more are found in the literature) were the specification of verb directedness (pleonastic reflexives), extenuated reflexivity, i.e. marking of co-referentiality without overt disambiguation (pleonastic reflexives, snake sentences), expression of viewpoint, empathy or level of conscious involvement of the subject (snake sentences), and expression of the speaker's attitude towards the proposition

(pleonastic benefactives). The clearest disambiguation device – incompatible with prescriptive grammar – was found in dangling participles with overt pronominal subjects, which clarify the semantic and syntactic relations in utterances and reduce the processing effort that would otherwise be required to derive zero. Pleonastics are therefore neither unnecessary nor uneconomic. It seems that, along the lines of Zipf (1949), it is effort rather than amount of work that influences linguistic choices, and that variation and ambiguity are not sub-optimal (cf. Gardner et al. 2021). This surely deserves further reflection.

Personal pronouns are hence much more than deictic expressions that denote a speech role, or point to a referent, or anaphors that refer to some other entity in the co-text, or items that stand for a noun phrase. Depending on which form is used in which construction, and by whom in which context, they convey (discourse-) pragmatic meaning. Disambiguation happens, but it looks quite different from what prescriptive rules suggest. What seems redundant in Standard English (e.g. pleonastics) is not redundant in spontaneous discourse; what is claimed necessary in Standard English, might not be needed in situated talk. Eventually, a delicate balance is achieved between language economy and the satisfaction of expressive needs, which is not captured in discrete oppositions but reflected in quantitative preferences in language use.

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