# Against a purely feature geometric analysis of pronominal meanings
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I argue against the assumption found in recent literature that the meaning of personal pronouns and impersonal pronouns can be built up fully from their morphosyntactic features (D'Alessandro & Alexiadou (2002), Kratzer (2009), Zeijlstra (2010)). Both D'Alessandro & Alexiadou (2002) and Zeijlstra (2010) base their accounts on feature geometric hierarchies of the type proposed by Harley & Ritter (2002). Harley & Ritter assume interdependent hierarchically structured privative features that are supposed to completely determine the pronoun carrying them (they, however, do not talk about impersonal pronouns). They assume that different pronouns necessarily carry distinct features. D'Alessandro & Alexiadou and also Zeijlstra extend the assumption by suggesting that it is possible to build the (distinct) pronominal meanings from the morpho-syntactic features. This implies that the features carry meaning and are the building blocks for pronominal meaning (Kratzer 2009 spells out this assumption for personal pronouns, but does not cover impersonal pronouns).

**Problem:** Given the above assumption, pronouns that have multiple possible interpretations present a problem for purely feature geometric accounts. One such pronoun is English 2p.sg. *you*, which can either be used for picking out the addressee of a sentence or to make generic statements where it can be substituted by the impersonal pronoun *one* (Kitagawa & Lehrer 1990), see (1).

(1)     You have to pay extra for the salad.
        Can mean: "The addressee has to pay extra..." or "One has to pay extra..."

**D'Alessandro & Alexiadou (2002)** extend Harley & Ritter's hierarchy to account for impersonal pronouns by introducing a person feature [Generic] as a third alternative to the [Speaker] and [Addressee] features. They set out to model the two different uses of the Italian pronoun *si*, that can be interpreted either impersonally, similar in meaning to English *one*, or specifically, similar in meaning to English *we* (Cinque 1988). How *si* is interpreted depends on the aspectual specification of the sentence and whether or not reference to a specific time or the "speech-act" (meant as "utterance (context)") is made. To account for the two readings, they assign a feature matrix to *si* that is underspecified wrt. PARTICIPANT ($\sim$ person). The feature matrix is specified via agreement with the right syntactic nodes: Either an AspectP gives a [Generic] feature to *si* (impersonal reading) or a SpeechActP gives a [Speaker] feature to *si* (specific reading).

Looking over the fact that [Generic] as a participant feature departs from traditional conceptions of participant or person, their account cannot explain impersonal uses of personal pronouns. A parallel account for English *you*, i.e. assigning *you* an underspecified meaning, results in impersonally used *you* carrying the [Generic] feature, whereas the deictic hearer-referentially used *you* carries the [Addressee] feature.

**Counterargument against underspecified *you*:** Given that (i) the impersonal reading of pronouns is connected to the [Generic] feature, (ii) impersonal pronouns have 3rd person agreement (see e.g. English *one* and the corresponding German *man*, Italian *si* etc.) and (iii) there is a one-to-one relation between the make up of the feature matrix, the interpretation and the agreement morphology of a pronoun, one would expect that impersonal readings of personal pronouns (carrying the [Generic] feature) also show 3rd person agreement. However, impersonally used personal pronouns have the same person agreement as their deictically used versions which points to both having the same feature matrix. That the agreement in the impersonal case stays the same can be seen well in (1) and the corresponding German example in (2).

(2)      Du   musst       für den Salat extra bezahlen.
*you must.*2P.SG. *for the salad extra pay*
       Can mean: "The addressee has to pay extra..." or "One has to pay extra..."

Examples (1) and (2) also show that the distribution of the readings is not complementary, which would follow if the underspecification is resolved differently depending on the syntactic environment - something D'Alessandro & Alexiadou try to model, but which does not uniformly hold for their Italian data either, see (3) (D'Alessandro & Alexiadou's (22)).

(3)      Li         si cercava.
*them.ACC si looked-for.IMPF*
       Can mean: "People were looking for them." or "We were looking for them."

**Summary & Dilemma:** Underspecified feature matrices can model the different meanings, but fail to account for the agreement facts; keeping the feature matrices constant accounts for the agreement facts but cannot model the different meanings (given the above assumptions). Thus I propose that the morphosyntactic features are the basis for agreement in the syntax but do not necessarily and directly contribute to the meaning of the pronouns.

**Alternative proposal:** I assume Nunberg's (1993) three component theory: a personal pronoun is made up from a deictic component (picking out an individual in the context), a relational component (which provides a relation between pairs of individuals) and a classificatory component, which specifies the morphosyntactic features of the pronoun. The final pronominal referent is determined from an interaction of the three components. In the case of impersonally used personal pronouns, the classificatory component specifies their syntactic behaviour and possibly the value of the deictic component, but does not influence the participant role or the semantic number of the possible referents. Example (4) gives an impersonal use of German 1p.sg. *ich* where the pronoun is modified by an *als*-phrase containing a semantically plural but syntactically singular noun, *Mannschaft* (Engl. *'team'*), which does not have to consist of speakers.

(4)      Ich muss als Mannschaft motiviert auf den Platz gehen.
*I    must   as   team       motivated on   the   field   go*
       Impersonal meaning: "As a team, one has to step on the field motivated."

I propose to model the semantic ambiguity by assuming an underspecified meaning for pronouns that contains free variables whose values are contextually determined (i.e. $i$ and $R$ that model the deictic and the relational component, respectively). Example (5) gives a possible underspecified interpretation for German *ich* (adapted from Zobel (2010)). The influence of the classificatory component over the deictic component is modelled by the presuppositions on the free variable $i$: $i = \text{speaker}(c)$ and $i$ is atomic

(5)      $[\![\text{ich } [i_1\ R]]\!]^{w,c,g} = \lambda P.\lambda s.i = \text{speaker}(c)$ and $i$ atomic $: \exists x[R(x)(g(i))(s)\ \&\ P(x)(s)]$
where $g(i) = \text{speaker}(c)$

**Cinque**, G. (1988) *On si constructions ans the theory of arb*, LI 19; **D'Alessandro**, R. & **Alexiadou**, A. (2002) *Inclusive and exclusive impersonal pronouns: a feature-geometrical analysis.*, Rivista di Grammatica Generativa 27; **Elbourne**, P. (2008) *Demonstratives as individual concepts*, L&P 31; **Harley**, H. & **Ritter**, E. (2002) *Person and number in pronouns: A feature geometric analysis*, Language 78; **Kitagawa**, C. & **Lehrer**, A. (1990) *Impersonal uses of personal pronouns*, JoP 14; **Kratzer**, A. (2009) *Making a Pronoun*, LI 40; **Nunberg**, G. (1993) *Indexicality and Deixis*, L&P 16; **Zeijlstra**, H. (2010) *Let's talk about you and me*, Handout for "Between you and me" Workshop June 7-8, Nijmegen; **Zobel**, S. (2010) "Non-standard uses of German 1st Person Singular Pronouns", In: *JSAI-isAI, LNAI 6284*;