Impersonal pronouns and pronominal paradigms.

Sophia A. Malamud

Brandeis University

The problem. Impersonal pronouns are pervasive in world's languages; boundaries between personal and impersonal paradigms are porous. In many languages, 2nd person pronouns can be used impersonally (1). In addition, dedicated impersonals like English *one* and German *man* (2ab) may come to have a special association with the speaker (2bc). This raises questions about pronoun paradigms in such languages: what are the features of impersonals? What are the restrictions on processes that take pronouns from personal to impersonal category, or the other way? While much work addresses features of personal pronouns (cf. Kratzer 2009), the realm of impersonals remains underexplored. I begin to address this gap, utilizing independently motivated type-shifting mechanisms for joining pronominal features.

(1) In those days, you rarely/usually/sometimes lived to be 60.

(2) a. Damals lebte man normalerweise/selten bis 60 Jahre.
Then lived MAN usually rarely till 60 years = **b.** Then, one (usually/rarely) lived to be 60.

c. Es war klar, dass man sich nie mehr wiedersehen würde. (from Kratzer 1997)
it was clear that MAN refl never again see again would=It was clear that we won't see each other.

Previous work. Moltmann 2006 analyzes English *one*, which appears only when quantified by a generic (Gn) operator or quantificational adverb (2b). Its ability to show quantificational variability (QVE) with different Q-adverbs means that *one* introduces a variable. Its 1st person connection (Safir 2004, a.o.) is the basis for the generalization in the *one*-sentence, and consists of the speaker putting himself into the shoes of the person that the variable stands for (speaker "simulating" another person) (Moltmann 2006). This can be modeled similarly to the "*as* construction" (3), where *one* involves a generically quantified variable introduced "as someone whom the speaker simulates." *As*-constructions are analyzed in Asher 2006; where the *as*-phrase in (3) shifts the denotation of *John* to a complex partially-specified type (consisting of several *aspects*), with the specified aspect of being a judge, while the main predication applies to that aspect of the variable (4a).

(3) John as a judge is excellent (though John as a father is pretty bad).

(4) a. $\exists u(O\text{-}elab(u,j)$ & $judge(u)$ & $excellent(u)$ where u has the type *judge*; j has the type $?\bullet judge$
b. $excellent(\langle j , \lambda x.judge(x)\rangle)$ **c.** $Gn\ x\ [C(x)$&In-those-days$(x)]\ [live\text{-}to\text{-}60(\langle x,Sim(x,speaker(c)\rangle)]$

Adopting his approach, I use descriptive notation from Moltmann 2006 compatible with it, where the *as*-phrase introduces a "*qua* object", consisting of John, and the property *qua* which John is referred to (4b). Thus, *one* in (2b) introduces such a complex-typed variable, and the property of being simulated by the speaker (4c).

The theory. Kratzer 2009 offers a theory of features for personal and bound-variable pronouns. I extend her theory by introducing two features that play a role in building impersonals. Kratzer assumes that interpreted features have denotations that are possible lexical meanings; pronouns enter derivation with the minimum set of features that will give desired interpretation, receiving remaining features via agreement (if the minimum is not pronounceable).Indexical features 1st and 2nd are referential to the speaker and hearer (type *e*). 3rd person pronouns are built from descriptive features (e.g., gender, sort, of type <*et*>) and a [def] feature with the denotation of the definite article (yielding type *e*).

Dedicated impersonal pronoun *man* has a speaker-inclusive use (2c,2a) and non-inclusive use (5,2a).

(5) Im Ministerium wusste man ganz genau über mich Bescheid.
in the ministry knew man completely about me info = In the ministry, they knew everything about me.

It originated in a noun *Mann* "person" and must refer to humans. Thus, I propose a descriptive feature [human] with the denotation $\lambda x.person(x)$. Yet, this feature does not combine with [def] to give type *e* pronoun. Sentences like (5) where *man* has existential semantics, and (2a) where it exhibits indefinite-like QVE show that its meaning is closer to "a person" than "the person", introducing a new variable into the computation (which may (2a) or may not (5) be bound later). *Man* behaves as an indefinite, *pace* Kratzer 1997. An impersonal feature [arb] introducing a new variable of type *e* would be the simplest way to do that. But [human] & [arb] cannot combine normally – that would yield *person(x)*, type *t*, not a pronoun! Kratzer 2009 mentions another way for features of type <e,t> & *e* to combine: non-restrictive modification, as in (6).

(6) John, who had to wait in line, finally got in.=>Assertion:John finally got in. CI:John had to wait in line.

The modifier introduces a conventional implicature (Potts 2005), without affecting the truth-conditions. This won't do here – CIs receive types that prevent them from interacting with any further operators. So, a CI *person(x)* has a free variable that will never be bound, while the same variable in the assertion may well be, as in (2a). I propose a new way to combine features of type *e* and <*e t*>: as a reference under an aspect (Asher 2006), as in Moltmann's denotation for *one*. The denotation of non-inclusive *man* is <*x,λx.person(x)*> (reference *qua* being a person, similar to the *as*-construction); such complex-typed objects are used elsewhere to resolve type mismatches (Asher 2006, Pustejovsky 1995). For most speakers, speaker-inclusive *man* is synonymous with *wir "*we"; I therefore propose that its features are {[group],[1st]}, a plural 1stperson pronoun (Kratzer 1997).

English and German have impersonal uses of 2ndperson pronoun. It must be bound by Gn or an overt quantifier (1); there is also a feeling that the hearer's empathy is solicited to "place themselves in the shoes of" the referent of the pronoun. I propose that *you/du* carry the feature [2nd] on both the personal and impersonal uses. The impersonal also has the [arb] feature. A simple combination of these two features is impossible: both are type *e*. The pronoun is singular: even when impersonal, it cannot have plural adjectival/nominal concord (7); so it is not the plural generated by the feature set [sum]([2nd],[arb]).

(7) In this university, you are usually a happy camper / *happy campers

The solution is suggested by the hearer-empathy solicited with the use of the pronoun: [2nd] is interpreted not as a direct reference to the hearer, but as a property of being "simulated" or identified-with by the hearer; this property combines with the variable introduced by [arb] to create a *qua* object, a complex-typed variable <*x,λx.Sim(x,hearer(c))*>.

The last part in the treatment of impersonal *you/du* explains their absence from episodic contexts - an uninterpretable [gn] (generic) feature, requiring a sentential quantifier to apply: IP containing the pronoun with this feature must be generic, which is achieved by Gn operator appearing as a sentence-initial feature (Moltmann 2006), or by a Q-adverb/modal marking the IP as generic. While non-local, this agreement is akin to certain cases of case-valuation. Adopting Pesetsky & Torrego's (2001) proposal that uninterpretable features are misplaced interpretable features, nominative case is achieved by valuing a misplaced tense feature on the DP. In constructions such as Icelandic (8), the valuation on the nominative *disease* is by the main tense outside the local phase. 2ndperson impersonals are thus built from interpretable features [2nd], [arb], and uninterpretable [gn] (valued by [gn] on IP). The pronoun is the same as for lone [2nd] feature, since no other lexical item is a better match (Halle 1997, Embick and Noyer 2006).

(8) Barninu virtist batna veikin. *(from Yip et al 1987,cf.Sigurðsson 1991,Schutze 1997,a.o.)*
child.the.DAT seemed to.recover disease-the:N. = The child seemed to recover from the desease.

Given Moltmann's semantics for *one*, we propose a feature set it is built from: [1st][1], [arb], and uninterpretable [gn], yielding the denotation <*x,λx.Sim(x,speaker(c))*> that is restricted to quantificational (generic) contexts. I argue against the actual proposal in Moltmann 2006, who analyses sentences with *one* as properties self-ascribed by the speaker. As sentences which contain both an impersonal *one* and an impersonal *you* (9) show, the framework must be able to include one variable with an aspect of being simulated by the speaker, and another with an aspect of being simulated by the hearer.

(9) a. In those days, one could put you in jail for stealing a piece of bread.
b. ?In those days, you could put one in jail for stealing a piece of bread.

Conclusions. This paper utilizes the rich type system proposed in Pustejovsky 1995 to offer a new way to compose pronominal features. The resulting analysis extends Kratzer's 2009 theory of pronominal features to include an independently-motivated type-shifting mechanism for feature-joining, and offers a principled way to constrain interactions between the personal and impersonal pronominal paradigms.

References.

Alonso-Ovalle, L. 2002. Arbitrary pronouns are not that indefinite. *Going Romance 2000*:1-14.

Asher, N. 2006. Things and their Aspects. *Philosophical Issues 16:* 1-23.

Chierchia, G.1995. The Variability of Impersonal Subjects.In Bach et al (eds.), *Quantification in Natural Languages*: 107-143. Kluwer, Boston.

Chomsky, N.2001. Derivation by phase. Kenstowicz (ed.), *Ken Hale: a life in language:*1-52.Cambridge, MA: MIT Press.

Corbett, G. 2000. *Number*. Cambridge: Cambridge University Press.

Cysouw, M. 2003. *The Paradigmatic Structure of Person Marking*. Oxford: Oxford University Press.

1 On closer examination, the proper feature here might be [self], designating a *de se* pronoun incapable of *de re* readings, not [1st]. I address the issue of *de re* readings for *one* and inclusive *man* in the talk.

Déchaine, R.-M. and M. Wiltschko 2002. Decomposing Pronouns. *Linguistic Inquiry 33*. 409-442.
Egerland, V. 2003. Impersonal pronouns in Scandinavian and Romance. *Working Papers in Scandinavian Syntax 71*: 75–102.
Embick, D. and R. Noyer. 2006. Distributed Morphology and the Syntax/Morphology Interface. Ramchand and Reiss (eds.), *Oxford Handbook of Linguistic Interfaces*: 289-324. Oxford: OUP.
von Fintel, K. 1995. A minimal theory of adverbial quantification. Partee and Kamp (eds.) *Context Dependence in the Analysis of Linguistic Meaning:* 153–193. IMS Stuttgart Working Papers.
Gordon, R. M. (1995a). The simulation theory: Objections and misconceptions. Davies & Stone (eds.), *Mental simulation: Evaluation and applications*. Oxford: Blackwell.
Halle, M. 1997. Distributed Morphology: Impoverishment and Fission. *MIT Working Papers in Linguistics 30*: 425-449.
Halle, M. and A. Marantz. 1993. Distributed Morphology and the Pieces of Inflection. Hale and Keyser (eds), *The View from Building 20. Essays in Linguistics in Honor of Sylvain Bromberger*: 111-76. Cambridge, MA: MIT Press.
Harley, H. and E. Ritter. 2002. Person and Number in Pronouns: A Feature-Geometric Analysis. *Language 78*.482-526.
Kratzer, A. 1997. German impersonal pronouns and logophoricity. Presentation at *Sinn und Bedeutung II*. Berlin, Germany.
Kratzer, A. 1998. More Structural Analogies Between Pronouns and Tenses. *Proceedings of SALT VIII:* 92-109. Ithaca: Cornell University.
Kratzer, A. 2009. Making a Pronoun. *Linguistic Inquiry 40(2).*
Markman, V. 2005. *The Syntax of Case and Agreement: its Relationship to Morphology and Argument Structure*. Ph.D. Thesis. Rutgers University.
Moltmann, F. 1997. *Parts and Wholes in Semantics*. New York: Oxford University Press.
Moltmann, F. 2006. Generic One, Arbitrary PRO, and the First Person. *Natural Language Semantics 14:* 257-281.
Partee, B. 1989. Binding Implicit Variables in Quantified Contexts. *CLS 25*: 342-365.
Pesetsky, D. and E. Torrego 2001. T-to-C Movement: Causes and Consequences.“ Kenstowicz (ed.), *Ken Hale: A Life in Language*. Cambridge, MA: MIT Press.
Potts, C. 2005. *The Logic of Conventional Implicatures*. Oxford: Oxford University Press.
Pustejovsky, J. 1995. *The Generative Lexicon*, Cambridge, MA: MIT Press.
Recanati, F. 2000. Varieties of Simulation. Dokic and Proust (eds.), *Simulation and Knowledge of Action*, Bibliotheque CREA, Paris.
Rullmann,H.2004.First and Second Person Pronouns as Bound Variables.*Linguistic Inquiry 35:*159-168.
Safir, K. 2004.What does *one* mean when one says it? *Presentation at Indexicality Workshop*. Harvard University, Cambridge, MA.
Schutze, C. 1997. *Infl in Child and Adult Language*. Ph.D. Thesis, MIT.
Siewierska, A. 2004. *Person*. Cambridge: Cambridge University Press.
Sigurðsson, H. 1991. Icelandic Case-marked PRO and the licensing of lexical arguments. *Natural Language and Linguistic Theory 9*: 327 – 363.
Yip, M., J. Maling and R. Jackendoff 1987. Case in Tiers. *Language 63*: 217 – 250.