

The Semantics of Imperatives within a Theory of Clause Types

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Requirements for a theory of imperatives. As of the year 2004, semanticists have taken the dynamic approach to semantics to heart, and have worked out analyses of assertion in detail (based on Stalnaker 1978 and the concept of Common Ground) and have devoted significant attention to asking (Ginzburg 1995, Roberts 1996; the basic idea is to use a set parallel to the Common Ground, but this time containing question denotations). As we develop an analysis of the meaning of imperatives we must answer two questions:

Q1 How does the semantics of imperatives fit together with what we know about declaratives and interrogatives?

Q2 Why are imperatives, interrogatives, and declaratives the only universal (i.e. “major”, cf. Sadock & Zwicky 1985) clause types?

We'll focus on Q1 and Q2 in this talk, but it is also essential that we understand the relationship between the meaning of imperatives and their syntactic characteristics. Specifically:

Q3 What explains the distinctive properties of the imperative subject?

To take an obvious example of the special nature of imperative subjects, why can imperative subjects be null in languages which otherwise don't allow null subjects in root clauses?

Q4 What explains the distinctive properties of imperatives' IP/CP syntax?

Among the special properties of the clausal syntax of imperatives are the fact that in many languages the verb is in a higher position than usual, as seen in (1), and interactions with negation (e.g. Rivero & Terzi 1995, Rizzi 1997, Poletto 2000, among many others).

(1) siediti! sit.IMP-refl.2sg 'Sit!' (Italian)

The high position of the verb in (1) is shown by its position to the left of the clitic *-ti*.

Analysis. The hypothesis which ties together the answers to Q1-Q4 is (1) (cf. Hausser 1980):

(2) An imperatives denotes a property which can only be true of the addressee.

$\ll \text{Leave} \ll^c = [\lambda x \lambda w . x = \text{Addressee}(c) \text{ and } x \text{ leaves in } w]$

Answering Q1: The discourse context contains a set of propositions (the Common Ground), a set of sets of propositions (the Question Set), and a set of properties for each conversational participant (a To-Do list TDL(i), for each participant i). The force of an imperative is to add a proposition to TDL(Addressee); this is parallel to assertion (adding a proposition to the Common Ground) and asking (adding a question-denotation to the Question Set).

Answering Q2: The three components of the discourse context mentioned above – the Common Ground, Question Stack, and the To-Do lists – are differentiated by semantic type: The Common Ground is a set of propositions, the Question Set is a set of sets of propositions, and a To-Do list is a set of properties. These have a fixed interpretation in discourse semantics which can be stated informally as follows:

Common Ground: The set of propositions which participants agree to treat as true.

Question Stack: The set of issues which participants agree to try to resolve.

TDL(i): The set of properties which participants agree i will try to have.

Sentences are assigned a force not through any “force marker” or “illocutionary operator”, but pragmatically, via the fact that their denotations match one of these sets. For example, declaratives receive the default force of asserting because their semantic type, proposition, matches the type of object in the Common Ground. Other illocutionary forces which might be

candidates for being a major clause type, such as threatening, would be based on a semantic type which is already associated with one of the major types. They would therefore require a mechanism for linking their semantic meaning to their discourse function other than the simple one which applies to the major types (cf. Zanuttini & Portner 2003 on exclaimatives).

The purely pragmatic status of force assignment helps explain the seemingly unrelated fact that specific indefinites cannot occur in imperatives:

(3) *Eat a certain apple!

Certain indefinites cannot be within the argument of a buletic operator (Farkas 2002):

(4) Mary hopes to catch a certain unicorn.

In (4), the complement clause proposition is used to rank the worlds compatible with Mary's beliefs (Heim 1992, Giannakidou 1997, Giorgi & Pianesi 1998, Villalta 2000, 2001). What (4) shows, then, is that *certain* has a mood-like restriction to the effect that it cannot be interpreted inside a clause used to rank worlds; if it is in a clause with such a function in surface syntax, it must be interpreted outside the scope of that clause (through whatever mechanism is responsible for specificity). A To-Do list is likewise used to rank worlds, specifically the worlds compatible with the Common Ground. The interpretation of the To-Do list above should be made more precise as follows:

Partial ordering of worlds: $TDL(i)$ defines a partial ordering on worlds such that for any $w_1, w_2 \in CG$, $w_1 <_{TDL(i)} w_2$ iff for some $P \in TDL(i)$, $P(i)(w_2)=T$ and $P(i)(w_1)=F$, and for all $Q \in TDL(i)$, if $Q(i)(w_1)=T$, then $Q(i)(w_2)=T$.

Agent's commitment: The participants in the conversation mutually agree to deem the actions of i rational in any world $w \in CG$ to the extent that they will tend to make it more likely that $w \in \{w' \in CG : \text{there is no } w'' >_{TDL(i)} w'\}$.

Because the ranking of worlds in imperatives occurs at the level of discourse interpretation, and not from any operator, *certain* in an imperative cannot be interpreted outside the scope of the phrase used to rank alternatives. Therefore, it is ungrammatical. (An alternative account based on Krifka's 2001 work on quantifying into speech acts is incompatible with the recent non-scope-based accounts of specificity, e.g. Reinhart 1997, Winter 1997, Kratzer 1998. Another alternative might be based on the idea that specific indefinites must be hearer-unknown, and so pragmatically infelicitous in imperatives; however, indefinites with *certain* are not specific in this sense; therefore, such a proposal can't explain (3).)

Answering Q3: The imperative subject must be abstracted over to form the imperative property. This makes it a lexical item distinct from ordinary second person pronouns, with distinct morphosyntactic properties such as null phonological form (in English). The nature of the imperative subject's binding requirement is a difficult issue, but one possibility is that imperative subjects are logophoric pronouns, as logophoric pronouns are always bound in the theory of Schlenker (2003), and this would tie into Schlenker's idea that mood is a logophoric phenomenon. Saying the imperative subject is PRO would get the right result as well, though this idea is probably syntactically untenable.

Answering Q4: Imperatives contain an element (a "null modal") whose only semantic contribution is to abstract over the subject to form the imperative property. This element resides high in the clausal architecture, and may correspond to the element which has been mislabeled a "force marker" or "illocutionary operator" in previous analyses. This element triggers verb movement in languages like Italian, yielding the word order seen in (1).