

Speaker's Intentions and Beliefs in Negative Imperatives

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One of the questions asked of the participants to the workshop is *What is the evidence for the existence of intentions? What types of intentions are useful to identify for communication?*

The former part of the question has already been positively answered by many researchers, such as [GS86; GS90], [LC91], [LA90]; the same answer emerges from the abstracts submitted to the workshop, and I will therefore take it for granted.

I will focus on the latter part of the question, and I will try to provide an answer by taking what seems to me a necessary preliminary step, namely, by identifying the factors underlying the speaker's communicative intentions. Some of these factors have been identified — for example by [LA90; Pol86] — as the beliefs and intentions that the speaker (S for short, and referred to with feminine pronouns) believes the hearer (H for short, and referred to with masculine pronouns) has prior to the current utterance, and the new ones H will adopt as a consequence of the utterance.

The analysis of such factors can be further finessed: one that is very pervasive in instructional text is the *choices* that S believes H has with respect to acting. While acting, an agent is continually faced with an infinite number of choices, of which the vast majority are not consciously considered, because they don't matter in the situation at hand. One task S is faced with, then, is to identify which choices matter, and to constrain the alternatives. I am going to show that the surface form of the utterance is affected by S's beliefs about the choices that H may either intentionally make or unintentionally overlook. In my previous work, I have identified how the choice among alternative courses of actions is constrained by the goal that an action is meant to achieve, and how these constraints are expressed and computed in the case of purpose clauses [Di 92; DW92]. More evidence of the fact that S identifies and prunes H's possible choices is given by *negative imperatives*, and on those I want to concentrate in this contribution.

Why is it appropriate to try to understand the factors underlying S's intentions in the workshop? Consider for example Delin, Scott and Hartley's contribution [DSH93], which is particularly relevant to my interests because they work on instructional text. They postulate six levels of representation that should be taken into account to generate instructions; among

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†This research was supported by the following grants: DARPA no. N00014-90-J-1863, ARO no. DAAL 03-89-C-0031, NSF no. IRI 90-16592, and Ben Franklin no. 91S.3078C-1. Thanks to all the members of the *AnimNL* group, and in particular to Bonnie Webber, for very stimulating and helpful discussions.

them are the [speaker's] *deep* and *shallow intentions*, where the former is characterized as the representation of [S's] intentions that [H] perform the sequence of actions that constitute a particular task, while the latter is a representation of the goals that the text has to achieve in order to motivate the required tasks. What is not specified in [DSH93] is how the *shallow intentions* are formed on the basis of the *deep intentions*: it seems to me that factors such as the choices that S believes H has to face in acting play an important role in this process.

Hearer's choices and negative imperatives

One could take the simple position that S's intention in uttering a negative imperative is to prevent a certain course of action on the part of H. However, we can finesse things by recognizing that, from S's point of view, a negative imperative is produced when

- S believes H to be aware of a certain choice point, but expects him to choose the wrong alternative among many — possibly infinite — ones.
- S expects H to overlook a choice point. The choice point is sometimes identified through a side effect that the wrong choice will cause.

There appears to be a correlation between these two kinds of expectations and the two different classes of negative imperatives I have identified, *DONT* and *neg-TC*. *DONT* imperatives comprise negative imperatives proper, characterized either by the negative auxiliary *don't* or by negative polarity items; the other class is formed by verbs such as *take care*, *be sure* and the like followed by a negative infinitival complement.¹

As far as semantics goes, it is clear that a *DONT* imperative could be used when a *neg-TC* one is used: an expression like *take care not to do α* entails *don't do α* . In fact, in terse instructions only *DONT* imperatives are found. However, in the instructional texts I have examined, the two perform different functions.

DONT imperatives are used when S thinks that H is likely to come to a choice point, and intentionally choose one course of action over another. Some situations in which this can happen are:

- When S provides H with general goals, or with rules of behavior to be always adopted in certain circumstances, as in
 - (1) *You can put parquet down over a variety of surfaces, whether old or new, if they are firm, clean, smooth, and dry. Don't put parquet down on a surface that is below ground level because of the moisture problem.*

¹My corpus consists of 36 instances of *DONT* and 27 of *neg-TC* imperatives. I collected the data from two "how-to-do" books plus a few from detergents and cosmetics containers.

- When S identifies an action α which is an undesirable alternative to another action β that she tells H to do, as in:

- (2) *Caring for the floor. A good paste wax - not a water-based wax - will give added protection to the wood. Buff about twice a year; wax about once a year. Excessive waxing can cause wax to build up, detracting from the floor appearance. Dust-mop or vacuum your parquet floor as you would carpeting. Do not scrub or wet-mop the parquet.*

Clearly, S thinks that H, after adopting the intention of cleaning the parquet, may choose to do so in a wrong way. Notice that using a *neg-TC* verb in this case would be infelicitous, as it would seem to imply that H could unintentionally choose to perform either scrub or wet-mop.

Neg-TC imperatives are used when S expects H to overlook a certain choice point; such choice point may be identified through a possible side effect. Moreover, a *neg-TC* seems to be used only when S relates the negated action α to another action β in the discourse — in contrast, *DONT* imperatives can be used independently of other actions mentioned in discourse, as in warnings like *In case of fire don't use the elevator*. A form like “*Do β . Take care not to do α* ” appears to be used when

- α is an undesirable way of performing β . The description of β is always underspecified, and therefore H has many degrees of freedom in executing it. Consider

- (3) *To make a piercing cut, first drill a hole in the waste stock on the interior of the pattern. The diameter of the hole must be larger than the width of the blade. If you want to save the waste stock for later use, drill the hole near a corner in the pattern. Be careful not to drill through the pattern line.*

β is *drill a hole near a corner in the pattern*. The interpretation of *near* still leaves H some choices as regards the exact position where to drill: S constrains them by ruling out α “*drill [a hole near a corner in the pattern] through the pattern line*”.

Notice the difference in the relations between the actions involved in Exs. 2 and 3: in the former, there exists a third action γ “*clean parquet*” such that α “*scrub*” and β “*vacuum*” are alternative ways of achieving it; in the latter, there is no such γ , and α is directly related to β as one of its possible specializations.

- α is an undesirable effect of β , which may be under H's control, or under the control of external laws, as in

- (4) *To hang the border, begin at the least conspicuous corner. The work will go much faster if you have someone hold the folded section while you apply the border to the wall. Take care not to drip paste onto the wall.*

S expects H not to realize that there are different ways of performing the action *hanging the border*, some of which result in the side effect of dripping paste on the wall; and therefore S alerts H to take steps in order to prevent that from happening.

Some further evidence that S's expectations on H's possible choices affect the use of a *DONT* versus a *neg-TC* imperative is provided by the infelicitousness of a — really occurring! — *DONT* imperative:

- (5) # *If you must replace a tile, first cut around the edges with a circular saw. Set the blade to the depth of the tile and don't damage adjoining tiles.*

The previous example is not felicitous because, in the context of an assembly task, *damage* is not a choice that H has at his disposal, but rather, it is a side effect that may derive from certain choices in executing *cut edges with a saw*: therefore *neg-TC* would be more appropriate than *DONT*.

To conclude, I have presented evidence that the possible choices that S believes H has with respect to acting affect S's communicative intentions. Further work is needed to identify other factors underlying S's communicative intentions; as far as negative imperatives are concerned, I have started doing work on other components that come into play, such as the lexical semantics of the negated action [Di 93].

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