

Intentionality effect in imperatives

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In this talk, we discuss a peculiar property of imperatives in some Slavic languages, like Russian and Polish (Bogusławski 1985, Levinson 2005, Partee 2008, a.o.). In these languages, negated imperatives are ill-formed with verbs in perfective aspect. However, this aspectual restriction is circumvented when the action expressed by the verb is non-intentional. We propose a way to formalize the aspectual restriction and the intentionality effect. We also discuss other phenomena that show linguistic footprint of intentionality.

1. Data In some Slavic languages, imperatives in positive sentences can take verbs in either imperfective (I) or perfective (P) with a minimal difference in meaning, see the Russian example in (1a). However, negated imperatives are well-formed only with I, (1b), e.g. Forsyth 1970, Zaliznjak 2006, Paducheva 2013.

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| <p>(1) a. Otkryvaj^I/otkroj^P okno!
 open-IMP.I/-IMP.P window
 ‘Open the window!’</p> | <p>b. Ne otkryvaj^I/*otkroj^P okno!
 not open-IMP.I/-IMP.P window
 ‘Don’t open the window!’</p> |
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The aspectual restriction in (1) is obviated when the action expressed by the verb is non-intentional. In (2a), the verb *fall* expresses an inherently non-intentional action (absence of control). In (2b), non-intentionality is forced by the context.

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| <p>(2) a. Ostorozhno! Ne upadi^P!
 careful not fall-IMP.P
 ‘Be careful! Don’t fall down!’</p> | <p>b. (Mary lets her love-bird out of the cage
 and leaving the room tells John:)
 Smotri! Ne otkroj^P okno!
 look not open-IMP.P window
 ‘Be careful! Don’t open the window!’</p> |
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2. Proposal Following Paducheva 1985, Rappaport 1985, a.o., we assume that P asserts that the action has reached the end-point (EP) and presupposes that the action has started (S). I, on the other hand, does not have a presupposition and asserts the start of the action, as in the simplified representations in (3):

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| <p>(3) a. P asserts ‘You open-window EP’
 P presupposes ‘You open-window S’</p> | <p>b. I asserts ‘You open-window S’
 (no presupposition)</p> |
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For concreteness, we follow Han 1999 in analyzing imperatives as in (4) (although our proposal is compatible with other analyses of imperatives, see Kaufmann 2012).

- (4) $[[imp(p)]_w = \{w' : w' \in [p] \cap \leq (\cap f(w))\}$
where $f(w)$ is a modal base that contains all propositions known by the speaker and \leq is an ordering source from Kratzer 1991

The support for the definition of the modal base as above comes from examples like (5) suggesting that imperatives are totally realistic:

- (5) #Eat this fish! But you won’t. (Roberts 1989, Han 1999)

When an imperative combines with a verb in P, the presupposition of P is added to the modal base of *imp*, (6a). No update of the modal base of *imp* happens when the verb is in I, (6b). (The structures in (6) are simplified: {...} stands for ‘no presupposition accommodation’, rather than that $f(w)$ is empty.

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| <p>(6) a. $imp(\text{‘not you open-P the window’})_w =$
 $\{w' : w' \in [\neg \text{you open} - \text{window EP}] \cap \leq (\cap \{\text{you open-window S; ...}\})\}$</p> | <p>b. $imp(\text{‘not you open-I the window’})_w =$
 $\{w' : w' \in [\neg \text{you open} - \text{window S}] \cap \leq \cap \{\dots\}\}$</p> |
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To account for the deviance of negated imperatives with P, we need another ingredient: We are building on a range of philosophical discussion of intentionality in terms of being aware of the action and controlling the action (see Raz 2011, Grano 2017 for a recent overview and application of philosophical ideas to linguistic phenomena). The support for this comes from the deviance of (7):

(7) #John intends to fly to the moon, even though he knows this is impossible. (Grano 2017) We propose to model the controlling component of intentionality (with reference to aspect) as follows: if an intentional action starts, it must reach the end point, i.e. the action is controlled throughout the process and up to the point when the result is reached. In our notation, this can be schematized as a presupposition on the intentionality operator (INT) such that ‘you open-window S → you open-window EP’. Updating the modal base of *imp* in (6) with the presupposition of INT derives the aspectual restriction, (8):

- (8) a. $imp(\text{‘not you open-P the window’})_w = \{ w' : w' \in \llbracket \neg \text{you open} - \text{window EP} \rrbracket \cap \leq (\cap \{ \text{you open-window S; you open-window S} \rightarrow \text{you open-window EP; ...} \}) \} = \emptyset$
 b. $imp(\text{‘not you open-I the window’})_w = \{ w' : w' \in \llbracket \neg \text{you open} - \text{window S} \rrbracket \cap \leq \cap \{ \text{you open-window S} \rightarrow \text{you open-window EP; ...} \} \}$

3. Obviation of the aspectual restriction We discuss a number of strategies of circumventing the aspectual restriction. Verbs like *fall* and *win* are lexically marked as non-intentional and are incompatible with INT. Thus, the aspectual restriction is never observed with such verbs. On the other extreme, there are verbs like *murder* that are lexically marked as intentional. Such verbs are predicted to be unacceptable in negated imperatives in languages that have the aspectual restriction. Other verbs (like *open* discussed here) trigger INT insertion if it is compatible with the context. The fact that INT interacts with the aspectual restriction suggests that it is not a function of pragmatics, but rather is encoded in the grammar.

4. Extensions We show that our analysis of INT with imperatives can be extended to other cases of intentionality effect, such as the obviation effect and interaction with polarity sensitive items (Szabolcsi 2004, 2010). The latter case is illustrated in (9):

- (9) a. ??I don’t want to call someone/eat something. (neg > some)
 b. I don’t want to offend someone/break something. (neg > some)

Finally, we discuss cross-Slavic variation of the aspectual restriction and intentionality effect with negated imperatives. Following Bertinetto 2004, we conjecture that the observed split in the Slavic family is due to the differences in the diachronic development of lexical and grammatical aspect systems in these languages.

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