

Descriptive and Epistemic Habituality in Polish
Dorota Klimek-Jankowska
Wrocław University

In Polish there are two aspectual manifestations of habituality: imperfective and perfective habituais exemplified in (1) and (2) respectively.

- (1) Xiu pije mleko sojowe na śniadanie.
 Xiu drink-imp-pres-3sg milk soya for breakfast.
 'Xiu drinks soya milk for breakfast.'
- (2) Xiu nie wypije taniego wina.
 Xiu not drink-prfv-pres-3sg cheap wine.
 'Xiu will not drink cheap wine.'

The goal of this paper is to explain the syntactic and semantic distinction between imperfective and perfective habituais in Polish. We claim that habitual contexts of the type presented in (1) express a descriptive situation-oriented modality (they are headed by a modal operator Hab_{descr}) whereas the latter express an epistemic speaker-oriented habituality (they are headed by a modal operator Hab_{epist}). We assume that descriptive habituais generalize over events on the basis of several actual instances of eventualities which form a non-accidental pattern (see Greenberg 2003). We provide evidence for a hypothesis that Hab_{descr} is merged as a head of $Hab_{descr}P$ below TP, more precisely between the $Mod_{root}P$ (typically occupied by root modals in Polish) and AspP. This claim is supported by the observation that a morpheme instantiating descriptive habituality can be found in the scope of root modals, as shown in (3):

- (3) Xiu musiała grywać na skrzypcach dla cesarza. deontic > hab
 Xiu must-past play-hab the violin for emperor
 'Xiu had to habitually play the violin for the emperor'

We assume that the habitual morpheme is independent of aspect (see Filip and Carlson 1997). Moreover, we assume that AspP is projected lower than $Mod_{root}P$ since in Polish unlike in Spanish and French modals do not carry aspectual morphology. In the spirit of Hacquard (2006) and Zagana (2008), we show that descriptive habitual contexts are situation-oriented in that they modify the situation predicated of the subject. Similarly to Boneh and Doron (2008, 2009) we assume that the semantics of Hab_{descr} comprises event iteration and modality, where iteration is understood as in Kratzer (2005) as a property of V, not of the VP. Boneh and Doron represent iteration formally as the operator ITER which derives from P an iterative process $ITER(P)$ through Link's (1983) sum operator σ : $ITER \sim > \lambda P \lambda e \lambda w [P(e, w) \ \& \ e = \sigma e'] [P(e', w) \ \& \ e' \subseteq e]$. The definition requires of each event e which satisfies $ITER(P)$, first, that it satisfies P, and second, that it consists of a sum of proper subevents which satisfy P in the actual world w . The second essential component of Hab_{descr} is a descriptive modal base. Following Hacquard (2006), we assume that the modal base is relative to an event of evaluation and not relative to the world of evaluation. We propose that the descriptive modal base picks out the worlds compatible with circumstances of an iterated event. The descriptive modal base is formulated as $f_{descr}(e) = \lambda w'. w'$ is compatible with the circumstances of $ITER(P)$, where circumstances of the iterated event are the properties of the event's participants at the event's location and time. On the other hand, we claim that Hab_{epist} is projected in the same position in which other epistemic modals are projected in Polish, that is above TP. Our prerequisite assumption is that epistemic modals and root modals occupy a different syntactic position. The former are projected above TP and the latter below it (see Cinque 1999). This assumption is justified in Polish since in a configuration in which a modal is used together with a future tense auxiliary *będzie* 'will' only the root and not the epistemic interpretation of the modal is available, as shown in (5):

- (5) Xiu będzie musiała zagrać dla cesarza. będzie > must deontic
 Xiu will must play-perf for emperor.
 'Xiu will have to play for the emperor'

Moreover, epistemics scope over root modals while the reverse pattern is unobtainable, as shown in (6):

- (6) Xiu mogła musieć to zrobić. (epist > root) *(root > epist)
 Xiu can-past must this do
 'It is possible that Xiu had to do this.'

We provide evidence that Hab_{epist} found in perfective habituais patterns with epistemic modals in several respects. First, perfective habituais are speaker-oriented in that they describe the speaker's subjective attitude toward the factuality of the proposition. For instance, the perfective habitual statement in (2) is true in virtue of a speaker's conviction that Xiu is a lady and her courtly manners do not allow her to drink cheap wine. When we embed the perfective habitual statement, the subjective conviction is oriented

toward the attitude holder in the main clause, as shown in (7):

- (7) Jan uważa, że Xiu nie wypije taniego wina.
Jan thinks that Xiu not drink-perf-pres cheap wine
'Jan thinks that Xiu will not drink cheap wine.'

Moreover, like in the case of epistemic modals, there is a mismatch between the morphological form of perfective habituais and their temporal reference. Present tense perfective statements in Polish typically express future episodic events while present tense perfective habituais express atemporal generalisations. The atemporal character of perfective habituais follows from the fact that the proposition expressed by means of the perfective habitual statement is evaluated relative to a law-like conviction of a speaker which he or she has in mind at the utterance time. As for the semantics of $\text{Hab}_{\text{epist}}$, it takes a proposition q as its complement and it evaluates its truth relative to all the worlds provided by an epistemic modal base f_{epist} . In the spirit of Hacquard (2006), we assume that $\text{Hab}_{\text{epist}}$ is speaker-oriented or attitude holder-oriented and its modal base is keyed to the assertion event in the topmost projection in the grammar or relative to the attitude verb. Hacquard proposes that the speech event is associated with a $\text{CONTENT}(e)$ function which picks out the set of propositions consistent with speaker's beliefs. Along these lines, we claim that $\text{Hab}_{\text{epist}}$ in perfective habituais has an epistemic modal base which has an event pronoun, which has to be bound by an event binder that has CONTENT . The epistemic modal base is formulated as $f_{\text{epistemic}}(e) = \lambda w'.w'$ is compatible with $\text{CONTENT}(e)$. This account further predicts why only epistemic habitual statements can be expressed by means of both perfective and imperfective aspect whereas descriptive habituais can be expressed by means of imperfective aspect only, as shown in (8) and (9) respectively.

- (8) a. Xiu nie wypije taniego wina. (plausible as epistemic habitual)
Xiu not drink-prfv-pres-3sg cheap wine.
'Xiu will not drink cheap wine.'
b. Xiu nie pije taniego wina. (plausible as epistemic habitual)
Xiu not drink-prfv-pres-3sg cheap wine.
'Xiu will not drink cheap wine.'
- (9) a. Xiu pije mleko sojowe na śniadanie. (plausible as descriptive habitual)
Xiu drink-imp-pres-3sg milk soya for breakfast.
b. #Xiu wypije mleko sojowe na śniadanie. (implausible as descriptive habitual)
Xiu drink-perf-pres-3sg milk soya for breakfast.
'Xiu drinks soya milk for breakfast.'

In order to account for the interaction of aspect with $\text{Hab}_{\text{epist}}$ and $\text{Hab}_{\text{descr}}$ we adopt Kratzer's (1998) semantics of perfective and imperfective aspect which existentially quantifies over an event variable and maps a predicate of events onto a predicate of times by locating the temporal trace of the event $\tau(e)$ with respect to the evaluation time given by Tense. Perfective aspect locates the time of the event within the reference time, while imperfective aspect locates the reference time within the temporal trace of an event (cf. Klein 1994). We provide arguments to support our claim that perfective aspect in Slavic, apart from locating a temporal trace of an event within a reference time, requires that an event e which satisfies a predicate P does not consist of a sum of proper subevents which also satisfy P . $\text{Hab}_{\text{epist}}$ takes a proposition as its complement and it requires that it is true in all the worlds provided by the epistemic speaker-oriented modal base without imposing any requirements on the nature of the event expressed in the proposition. By contrast $\text{Hab}_{\text{descr}}$ requires that the input event is iterated and only these worlds which are compatible with the circumstances of the iterated event are universally quantified over. This requirement of $\text{Hab}_{\text{descr}}$ for the iterated event makes it incompatible with the semantics of perfective aspect.

References:

- Boneh, N. and Doron, E. (2008) Habituality and the Habitual Aspect. In S. Rothstein (ed.). *Theoretical and Crosslinguistic Approaches to the Semantics of Aspect*. Amsterdam: John Benjamins. • Boneh, N. and Doron, E. (2009) Modal and Temporal Aspects of Habituality, in M. Rappaport-Hovav, E. Doron and I. Sichel (eds.) *Syntax, Lexical Semantics, and Event Structure*, Oxford: Oxford University Press. • Filip, H. and G. Carlson (1997) Sui Generis Genericity, *Penn Working Papers in Linguistics, Volume 4 (Proceedings of the Twenty-First Annual Penn Linguistics Colloquium)*, University of Pennsylvania, Philadelphia, pp. 91-110. • Greenberg, Y. (2003) *Manifestations of Genericity*, Ph.D. dissertation, Bar-Ilan University: Routledge Outstanding Dissertations in Linguistics series. • Hacquard, V. (2006) *Aspects of Modality*. Ph.D. Thesis. MIT. • Kratzer, A. (1998) More Structural Analogies Between Pronouns and Tenses, in D. Strolovich and A. Lawson (eds.) *Proceedings of SALT VIII*. Ithaca, NY: CLC Publications, Cornell University. • Zagana, K., (2008), Phasing in Modals: Phases and the Epistemic/Root Distinction, in Guéron, J. & Lecarme, J. (eds.), *Time and Modality*, 273-291.