

**Anatomy of a Polish Circumstantial Modal.**

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I. Proposal. In this paper, we propose a formal semantic analysis of Polish constructions with dative subjects of type (1-3). Updating Rivero (2003), and Rivero & Sheppard (2003), we assign to such sentences the structure in (4). We argue that such constructions carry a circumstantial modal meaning (Kratzer 1981, 1991) formally encoded in a modal R, which heads an Applicative above the Tense Phrase (TP). Our proposal expands the typology of Applicatives in UG. Namely, other than the Individual = Low and Event = High Appls proposed by Pyllkänen (2008), there are Modal Appls. Modal Applicatives stand in the CP-domain, and establish a modal relation between individuals and features of events. Our proposal also identifies interesting variation in the expression of modality. Namely, the R modal in Polish (4) has a linguistically encoded modal base (also Davis, Matthewson & Rullmann 2007), in contrast with Kratzer's view that modal bases are usually defined by conversational backgrounds, i.e. pragmatics /context.

II. Dative and Manner Adverb. It has often been noted that datives in Polish constructions such as (1-3) are not in control regarding the manner of the eventuality reported by the sentence. Gołąb (1975) states that this type of dative "... does not cause the quality of the action ... [which] results from circumstances independent of him." For Wierzbicka (1988:219), "[s]entences of this kind mean that the agent experiences his own action as proceeding well (or not well) for reasons independent of him and unspecifiable." Dziwirek (1994) assigns an unwilling character to the dative. Dąbrowska (1997) speaks of luck and external conditions to achieve the goal. A second characteristic noted by many is that constructions of this kind seem incomplete if they do not have a Manner Adverb, such as *z przyjemnością* 'with pleasure' in (1).

III. Analysis. In our view, the characteristics of (1-3) mentioned above can be captured by a compositional modal semantics applied to structure (4). This configuration consists of (a) a High Applicative headed by a (null) universal modal R relativized to the human dative in its Specifier, (b) a Manner Adverb, and (c) a TP as complement of the Applicative. Modal R has an inherent circumstantial modal base, and takes two arguments: the TP-clause that restricts its modal base, and a Manner Adverb. The Manner Adverb is formally reminiscent of a purpose clause in goal-oriented modality (von Stechow and Iatridou 2004): *To go to Harlem, you ought to take the A-train*. The circumstantial modal R in (4) requires manner, so the manner of the event with the dative agent is thus **inevitable**. Circumstantial modality in Polish (1-3), then, associates with no choice or lack of control. We encapsulate the result of applying the denotation of modal R to its two arguments in the following formula:

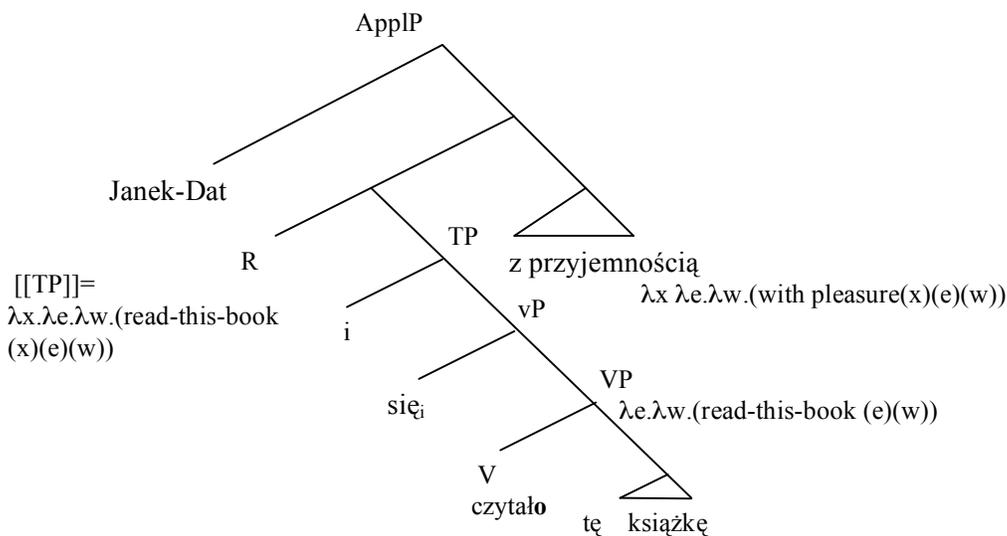
$$[[\mathbf{R}_{\text{modal}}]]^{w_0} (P_{\langle e, \langle 1, \langle s, \langle t \rangle \rangle \rangle}) (Q_{\langle e, \langle 1, \langle s, \langle t \rangle \rangle \rangle})(x_e) = 1 \text{ iff} \\ \{w: w \in \cap f_{\text{circumstantial}}(w_0) \ \& \ P(x)(e)(w) = 1\} \subseteq \{w: Q(x)(e)(w) = 1\} \\ \text{where } e \text{ is the presupposed (salient) eventuality.}$$

In the above formula, the event presupposition is taken for granted; it is simply assumed that sentences such as (1-3) are used when a salient event is under discussion. R in (4) takes two properties as arguments, and results in a property of individuals that applies to the dative subject. The arguments of R are properties from individuals to events to worlds to truth-values. The restrictor of modal R is the main clause or TP-structure, and the nuclear scope is the Manner Adverb. R = in all the worlds in the circumstantial modal base in which the property in the restrictor of the modal applies to the relevant individual and event, the property in the nuclear scope also applies to the relevant individual and event.

Furthermore, TP in (4) contains a specialized nonreferential pronoun, reflexive *się*, which carries a human presupposition, and abstracts over the (nominative) clausal subject notated *i* to provide a variable for the dative. Thus, patterns such as (1-3) have an obligatory reflexive clitic that cannot be replaced by an ordinary pronoun. In addition, such constructions must involve personal modality; that is, they are restricted to human / personified logical subjects, as often noted in the literature (a.o. Dziwirek 1994, Rivero & Sheppard 2003).

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- (1) *Jankowi czytało się tę książkę z przyjemnością.*  
 John.Dat read.Neut Refl this book.Acc with pleasure  
 ‘(Somehow), John read this book with pleasure.’
- (2) *Ewie miło ogląda się swoje zdjęcia.*  
 Eve.Dat nice watch.Pres Refl Poss photos.Acc  
 ‘Eve enjoys looking at her own pictures.’ Dziwired 1994: (175).
- (3) *Wesoło nam się podróżowało po tej pięknej krainie.*  
 Happily we.Dat Refl traveled.Neu over this beautiful country.Loc  
 ‘We enjoyed traveling all over this beautiful country.’ Dąbrowska 1997: (103).
- (4)



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