CHILDREN'S INTERPRETATION OF 'FEEL-LIKE' CONSTRUCTIONS[*]

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The aim of this paper is to examine children's comprehension of (unselected) 'feel-like' Dative construction in Serbian. Experimental data discussed below illustrate that children adopt non-adult grammatical representations of 'feel-like' Dative constructions. This paper discusses a number of linguistic and cognitive explanations for the observed deficit.

1.   Introduction

The reflexive clitic SE, similarly to its Romance counterpart, is used in a range of constructions in Serbian, such as intrinsic, unaccusative, anticausative, reflexive, middle, impersonal and passive, among others. The construction discussed here combines the reflexive clitic SE with an unselected Dative (i.e. the Dative that is not a part of the argument structure of the predicate). The structure has been traditionally labeled 'dispositional, involuntary state, feel-like' Dative construction, is completely absent from Romance languages, and is subject to parametric variation at the level of semantic interpretation in the Slavic language family. The 'feel-like' Dative in Serbian is illustrated in the examples (1a-d) and (2a-d) below. Similar situation obtains in other South Slavic languages, such as Slovenian, Bosnian/Croatian and Bulgarian.

(1)a. *Jovanu*   se   spava.
  John-DAT   se   sleep-3P-Sg-Neut
  John feels like sleeping.
  b. *Decaku* se spava.   (The boy feels like sleeping.)
  c. *Njemu* se spava.   (He feels like sleeping.)
  d. Spava *mu* se.   (He feels like sleeping.)

(2) a. Jovanu   se   jedu   jabuke.
  John-DAT   se   eat-3P-PL-Fem   apples-3P-PL-Nom-Fem
  (John feels like eating apples.)
  b. *Dečaku* se jedu jabuke.   (The boy feels like eating apples.)
  c. *Njemu* se jedu jabuke.   (He feels like eating apples.)
  d. Jedu *mu* se jabuke.   (He feels like eating apples.)

The above examples illustrate that neither the type of the Dative-marked NP (full NP, strong pronoun, clitic) nor its position in the sentence affect the interpretation assigned. Examples (3) and (4) illustrate the non-South Slavic pattern, in which almost identical syntactic forms get mapped onto a different semantic representation.

(3) Janovi   se   pracovalo   hezky.   (Czech)
     John-DAT   se   worked-Neut   nicely
     (John somehow worked well. NOT just: 'John felt like working well.')

(4) Ta kniha se Janovi cetla dobre.   (Czech)
     (John read this book with ease.)
     (Somehow, it was easy for John to read this book.
     NOT just: 'John felt like reading this book well.')

We adopt here the analyses of the South Slavic Dative constructions developed by M-L. Rivero, summarized in Rivero 2003. Under this approach, the South Slavic 'feel-like' Dative constructions undergo the operation of Dative-Disclosure at the level of semantics. Let us first illustrate the syntactic composition. In the intransitive pattern, illustrated in (5b), the impersonal construction (shown in (5a)), with the default verbal morphology and no Nominative-marked argument, represents the syntactic core to which the unselected Dative is added.

(5)a. Spava   se.
       Sleep-3P-Sg-Neut se
       (People sleep.)

   b. Spava   *mi*   se.
       Sleep-3P-Sg-Neut   I-DAT   se
       (I feel like sleeping.)

In the transitive pattern, shown in (6b), the syntactic core, illustrated in (6a) displays the morphology and syntax of passive constructions (a Nominative NP, a verb that agrees with this NP), to which an unselected Dative is added.

(6)a. Čitaju   se   te   knjige.
       read-3P-PL se   those books-3P-PL-Nom
       (Those books are read.)

   b. Čitaju   *mi*   se te   knjige.
       Read-3P-Pl   I-DAT   se those   books-3P-PL-Nom
       (I feel like reading those books.)

Structural analysis proposed by Rivero 2003 is illustrated, in a simplified form, in (7) and summarized bellow.

(7) $[_{ZP}$ John$_{DAT}$ Z $[_{YP}$ **SE** $[_{VP}$(x) read a book / sleep]]]

At the level of syntax, the structure comprises three layers, with a ZP as a notational device for marking a High/Event Applicative Phrase; YP for an inflectional/ propositional layer, and a VP for the predicate-argument shell. The role of High/Event Applicatives is to establish an (indirect predication) relation between an individual (the Dative) and an event (passive/impersonal). The analysis proposed for passives/impersonals is based on an Argument Saturation operation, whereby an existentially closed argument is saturated in the lexicon, not projected in the syntax, but available in the semantics. Thus pre-syntactic Argument Saturation feeds post-syntactic Dative Disclosure, producing a semantic output analogous to Obligatory Control (i.e. "I felt like [PRO reading those books]"). In simple terms, the implicit argument resulting from Argument Saturation has the properties of an existential quantifier and a variable, and once the existential quantifier is eliminated, 'existential disclosure' treats the implicit argument as a free variable, which is subsequently bound to the Dative. The indirect predication relation established between the free variable and the Dative (with an Experiencer role) as its controller is at the core of its 'modal' interpretation (for a detailed analysis of these constructions, see Rivero 2003 and her previous work).

The Western Slavic (e.g. Czech and Polish) pattern is, under Rivero's approach, subject to a semantic operation which establishes the direct predication relation between the Dative and the free variable, resulting in a Left-Dislocation type interpretation (i.e. "John, he read those books.")

3.   Unselected Datives in child Serbian

The acquisition of 'feel-like' Datives has not, to the best of my knowledge, received any attention so far. The complexity of a structural derivation, the precise rules governing syntax-semantics mapping, as well as parametric variation at the level of LF make this construction potentially problematic for a child learner. The goal of this study was to tap into children's sensitivity to a number of linguistic properties displayed by 'feel-like' Datives, such as: (a) the syntactic properties of clitic SE, including its ability to feed Argument Saturation in impersonal/passive constructions, (b) syntactic derivation of impersonal/passive constructions, (c) predicate argument structure (number and types of arguments selected), (d) existential disclosure, (f) the difference between direct and indirect predication, (g) Experiencer theta role assignment and interpretation, (h) mental attitudes, including predispositions, and un/realized events. Obviously, it was beyond the scope of the study reported here to provide a detailed account of the acquisition of

each of these factors independently, and a more comprehensive research on this topic is currently under way.

3.1. Spontaneous data

An analysis of the available spontaneous child Serbian corpora illustrates that 'feel-like' Datives are not absent from early production, as examples (8) and (9) demonstrate.[1]

(8) *meni*   se   tako   spava   (TZ 2;8)
      I-DAT   se   so much   sleep-3P-Sg-Neut
      (I feel like sleeping a lot.)

(9) Piški   *joj*   se   (TZ 2;10)
      pee-3P-Sg-Neut   she-DAT   se
      (She (=the doll) feels like peeing).

Although a strong indicator of child's developing grammar, spontaneous production has been criticized as an inadequate tool for measuring children's knowledge of certain syntactic operations. The observation, formulated as a non-uniform mapping between spontaneous production and adult grammatical representation, has led Babyonyshev et al. 2001 to argue that productive use of a structure, for example unaccusative under a Genitive of Negation or a passive, does not necessarily indicate children's mastery of the adult rule used to generate it, i.e. A-chain formation. Additionally, not all attempts at producing a 'feel-like' Dative in child Serbian are successful, as the example (10) clearly demonstrates.

(10)   context: looking at the picture of Mickey Mouse yawning
Child: ovaj Miki hoće da spava.   (MS 3;4)
            (this Mickey wants to sleep)
Mother: Spava   mu   se?
            sleep-3P-Sg-Neut   him-DAT   se
            (He feels like sleeping?)
Child: …ovoj   se   spava …
              this-DAT-*FEM   se   sleep-3P-Sg-Neut
            …se   spava   Miki Maus
              se   sleep-3P-Sg-Neut M. M.-*NOM
            …ovaj   se   spava
              this-*NOM-MASC   se   sleep--3P-Sg-Neut

Same context, one day later:

Child: … ovaj   se   meni   spava,
              this-*NOM-MASC   se   I-DAT-*1PS   sleep--3P-Sg-Neut,

              a nema krevet (but doesn't have a bed)

        In sum, production data should be interpreted with caution when discussing the acquisition of structures for which alternative syntactic or semantic representations may be postulated by a child learner.

3.2.   Experimental data

3.2.1. Procedure

A sentence-picture matching task was used, in which subjects were asked to choose a picture that best depicts the meaning of the sentence

3.2.2. Subjects

17 three-year-old Serbian speaking children, mean age 3;9, were tested in a daycare center in Novi Sad, Yugoslavia. Eight adult speakers of Serbian were tested as controls.[2]

3.2.3. Materials

The materials included two impersonal and two passive 'feel-like' Dative constructions, illustrated in (11) and (12) respectively.[3]

(11)   Dečaku   se spava/   piški.
       Boy-DAT   se sleep/   pee-3P-Sg-Neut
       (The boy feels like sleeping/peeing.)

(12)   Dečaku   se jedu   jabuke/   pije   sok.
       Boy-DAT   se eat-3P-Pl-Fem   apples-3P-Pl-Fem/ drink juice
       (the boy feels like eating apples/drinking juice)

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[2] 34 Croatian speaking children, mean age 4;2, were tested in a daycare centre in Zagreb, Croatia. As the results are identical to those obtained in the Serbian test battery, I have decided not to include them in the discussion.

[3] The size of the test battery as well as lexical limitations have prevented me from including more test items in this experiment. I am currently running an expanded version of the experiment, with the results literary replicating the findings reported here.

The subjects' task was to point to one of the three pictures, one of which depicts the correct interpretation, one of which depicts the interpretation under which the Dative takes an agent role, and a filler. Three potential choices are illustrated below:

√   the boy is staring at apples   (NP-DAT=Experiencer + unrealized event)
*   the boy is eating apples   (NP-DAT=Agent + realized event)
*   somebody else (a girl) is staring at the apples   (*distractor)

3.2.4. Results

The results are given in Table 1.

TABLE 1:
Percentage of first choice responses in the Dative condition
by Serbian-speaking child and adult subjects in the picture selection task

	EXPERIENCER	*AGENT	*
CHILD	**30**	**63**	7
ADULT	93	7	/

Chi-square X^2 (2, N=68)=32.324, p=.000

16 out of 17 child subjects adopt this pattern of response, clearly demonstrating that children are not sensitive to the rules that generate adult representation of 'feel-like' Datives in Serbian. Break-down of results by items and their statistical significance is given in Table 2, illustrating that the observed pattern obtains across items as well.

TABLE 2:
Percentage of first choice "AGENT" responses in the Dative condition
by Serbian-speaking child and adult subjects in the picture selection task

	EAT APPLES	DRINK JUICE	SLEEP	PEE
CHILD	41	65	71	77
ADULT	1	1	0	0
X^2 Child	p=.390	P=.011	p=.090	p=.029

3.3. Discussion

We provide here a number of potential explanations for the observed deficit, deciding not to take a strong position on any of these before additional data are gathered.

One of the prerequisites for successfully interpreting 'feel-like' Dative subjects is an ability to assign Experiencer role. Cross-linguistic data, as well as

spontaneuous production data illustrated in (13) and (14) below argue strongly for early knowledge of thematic role assignment and interpretation, in addition to relatively unproblematic morphological development.

(13) muka   *mi*   je   (TZ 2;0)
      sick   I-DAT   aux
      (I feel sick.)

(14) zima   *mu*   je?   (TZ 2;0)
      cold   he-DAT   aux
      (He is cold?)

A potentially missing building block for the 'feel-like' Dative constructions is children's ability to store and compute implicit arguments generated by Argument Saturation. Namely, correct interpretation of the Dative depends solely on its ability to bind the saturated argument (i.e. free variable) via Dative Disclosure. Cross-linguistic evidence abounds in examples of children's problems with passive sentences, most of which have been attributed to their inability to form A-chains (Borer and Wexler 1987), but the property that unifies passives and impersonals and links them directly to 'feel-like' Datives is Argument Saturation, rather than A-chain formation. Spontaneous data illustrate children's early production of impersonals (15) and passives (16 & 17), but is subject to criticisms outlined above.

(15) može se   uđe…   (SS 2;0)
      can   se   come-Subj
      (one can come inside)

(16) Sašina majica …   pere   se …   (MS 2;1)
      Sasha's teeshirt… wash-3P-Sg   se
      (Sasha's teeshirt … is being washed)

(17) Kako se pravi žvakaća guma?   (NZ 2;10)
      how se makes chewing gum
      (How is chewing gum made?)

The experiment reported here was a part of a larger test battery on different types of SE constructions, which also included two passive and two impersonal conditions, as illustrated in (18) and (19) below.

(18) Tamo se   jedu   jabuke.
      There se   eat-3P-Pl-Fem   apples-NOM
      (Apples are eaten there.)

(19) Tamo se   spava.
      There se   sleep-3P-Sg-Neut
      (One/people sleep there.)

The results are given in Table 3.

TABLE 3:

Percentage first choices in the item analysis in the passive/ impersonal condition by Serbian-speaking child and adult subjects in the picture selection task

	EAT APPLES			DRINK JUICE			SLEEP			PEE		
	*Ex	Pass	Imp	*Ex	Pass	Imp	*Ex	!Ag	Imp	*Ex	!Ag	Imp
Child	24	29	47	24	29	47	12	12	76	18	29	53
Adult	/	/	100	0	/	100	1	/	99	1	0	99
X^2 child	p=.465			p=.465			p=.001			p=.193		

These findings illustrate that children differ from adults in the way they interpret passive and impersonal SE constructions, but more data need to be gathered to tap into the source of the observed asymmetry.[4]

Moreover, there have been novel analyses of 'feel-like' Datives in South Slavic, which may shed additional light on structural properties potentially problematic for children. Under the biclausal analysis proposed by Marušić and Žaucer 2003, intensional phenomena are restricted to embedded clauses, in which the concealed matrix predicate takes a deficient clausal complement with no TP. Absence of overt predicate in the matrix clause allows for the presence of a covert 'feel-like' predicate, with Dative subject bearing an Experiencer role. One may then argue that children's problems are syntactically triggered, and derived from an inability to interpret covert, modal-like predicates. At this point this prediction is hard to test.

But how do Serbian-speaking children interpret intensional predicates, and could modality be at the core of difficulty with 'feel-like' Datives? Stojanović and Marelj (in press), using an act-out study, tested 15 four-and-five year old native speakers of Serbian (mean age 4;11) and eight adult controls on their interpretation of WANT/TRY predicates taking infinitive/subjunctive complements. In sum, children had over 90% correct responses on all types of predicate/complement combinations. These findings illustrate two things. First, children seem to have

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[4] Intuitively speaking, an inability to interpret and compute an implicit argument created by Argument Saturation may be at the core of children's difficulty with both impersonal/passive SE constructions, as well as 'feel-like' Dative constructions. Given strong and controversial predictions this claim would make for learnability process, especially regarding the Maturation Hypothesis, I need to gather more data on the acquisition of different types of passives and impersonals to eliminate the A-chain formation as the only source of children's difficulty with these constructions. It may still be the case that the problems observed are a processing rather than a competence deficit.

mastered the rules of obligatory/optional control, and hence basic properties of modality underlying intensional predicates. Second, not so obvious finding, is that children seem to be oblivious to the fact that procedural requirements (being asked to act out somebody's wishes and intentions) create pragmatically infelicitous situations, i.e. they demonstrate no problems interpreting desired actions as realized events. Anecdotal evidence, given in (17) below, also indicates that some extra-linguistic factors encoded in modality interpretation may be indirectly responsible for children's failure with 'feel-like' Datives.

(18)　　Mogao　　　　　　sam da　　padnem.　　　　　　　　　　　(MS 3;6)
　　　　can-1P-Sg-Past　　aux PRT　　fall-Subj
　　　　(I could have fallen down.)
　　　　-uttered right after he had fallen down

Additionally, children speaking languages without SE clitics and unselected Datives seem to demonstrate similar pattern of interpretation of 'feel-like' constructions. In a pilot study on children's knowledge of 'feel-like' in English, in which 7 children (mean age 4;2) were tested, 43% of responses (5 out of 7 subjects) were identical to the Serbian pattern, in which the embedded complement denoted a realized event. Additionally, children may have a pragmatically-constrained timing problem, as observed by Gerhardt 1991. Namely, the analysis of the timing of children's uses of 'needta' vis-à-vis the speakers' actions reveals that 100% of 'bodily function' uses are uttered as the speaker (the child) begins to launch the projected activity. Therefore a similar pattern of interpretation of 'feel-like' predicates in non-Slavic languages would argue in favor of a general cognitive rather than linguistically-determined competence deficit.
　　　　Theory of Mind is precisely the area of child development that may offer cross-linguistic accounts of the acquisition of intensional predicates within a general cognitive development. It has been observed that young children (below the age of four) do not represent complements (embedded proposition which may be *false*) to mental and communication verbs in an adult-fashion; and that complements to desire-verbs appear earlier/ are understood better than complements to belief-verbs, based on an IP-before-CP requirement (Linguistic Determinism as proposed by de Villiers 1995, De Villiers and de Villiers 2000). Others studies have reputed the *belief*-before-*desire* without IP-before-CP requirement, advocating that mastery of the grammatical structures that are required for expressing particular mental states is not the determining factor for developing an understanding of these mental states (Perner et al. 2003, Tardif and Wellman 2000). It seems crucial at this point to explore (and potentially eliminate) in-depth linguistic explanations of the phenomena under discussion before attempting to incorporate them into the Theory of Mind debates. Additionally, the fact that there is no direct correlation between performance on false-belief tasks and Theory of Mind (Bloom and German 2000), and the fact that performance on

false-belief tasks is highly inter-correlated with performance on syntax and semantics measures, support the argument that Theory of Mind (as measured by false-belief) is related to a *general* language ability (Ruffman et al. 2003). This still leaves us with the question of which level of children's competence grammar, be it syntax, semantics, or ultimately pragmatics, and which specific property of 'feel-like' Datives is directly responsible for the observed non-adult pattern of interpretation. I leave open these questions for future research on the topic of unselected Datives in Slavic languages.

References

Babyonyshev, M., Ganger, J., Pesetsky, D. and K. Wexler. 2001. The maturation of grammatical principles: evidence from Russian unaccusatives. *Linguistic Inquiry 32*: 1-43.

Bloom, P. and T. German. 2000. Two reasons to abandon the false belief task as a test of theory of mind. *Cognition 77*: B25-B31.

Borer, H. and K. Wexler. 1987. The Maturation of Syntax. In T. Roeper and E. Williams (eds). *Parameter Setting*. Reidel. 23-172.

De Villiers, J. 1995. Questioning minds and answering machines. In D. MacLaughlin and S. McEwen (eds) *Proceedings of the 19th Boston Conference on Language Development*: 20-36.

De Villiers, J. and P. de Villiers. 2000. Linguistic determinism and the understanding of false belief. In P. Mitchell, and K.J. Riggs (eds) *Children's reasoning and the mind*: 191-228.

Gerhardt, J. 1991. The meaning and the use of the modals HAFTA, NEEDTA and WANNA in children's speech. *Journal of Pragmatics 16*; 531-590.

Marušić, F. and R. Žaucer 2003. A Reanalysis of the Dative-Reflexive Construction in Slovenian. Paper presented at *Formal Approaches to Slavic Linguistics 12* meeting, University of Ottawa, May 2003.

Perner, J., Sprung, M., Zauner P. and H. Haider. 2003. *Want That* Is Understood Well Before *Say That*, *Think That*, and False Belief: A Test of de Villier's Linguistic Determinism on German Speaking Children. *Child Development 74/1*; 160-169.

Rivero, M-L. 2003. Reflexive Clitic Constructions with Datives: Syntax and Semantics. *Proceedings of Formal Approaches to Slavic Linguistics 11*. Michigan Slavic Publications. 469-494.

Ruffman, T., Slade L., Rowlandson K., Rumsey C. and A. Garnham. 2003. How language relates to belief, desire, and emotion understanding. *Cognitive Development 113*: 1-20.

Stojanović, D. and M. Marelj. In press. Interpreting empty subjects in nontensed complement clauses: Child and adult strategies. In Olga Mišeska-Tomić (ed) *Balkan Syntax and Semantics: Linguistics Today 67*. Amsterdam: John Benjamins.

Tardiff, T. and H.M. Wellman. 2000. Acquisition of mental state language in Mandarin- and Cantonese-speaking children. *Developmental Psychology 36*: 25-43.