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Syntactic Expression as Morphological Exponence

> "… an inflected word's association with its morphosyntactic feature specifications is logically prior to the spelling out of its inflectional markings, since it is this very association that determines the sequence of operations by which those markings are introduced; the realizational approach thus entails a rejection of the assumption that a word's morphosyntactic feature content is built cumulatively from that of its inflectional `morpheme' by a percolation mechanism." Stump 1993:449

I. Goal of the talk

- Analytically expressed predicates, exemplified by SUBJ/OBJ agreement paradigms from Mordvin and SUBJ agreement paradigms in Votyak (Udmurt) should be:

  (i) interpreted as *lexical constructions* (see Ackerman & Webelhuth 1998)
  (ii) within a realizational model of morphology, where
  (iii) the lexicon contains rules of correspondence between content-theoretic and form-theoretic aspects of lexical representations.

II. Introductory Issues

- *Background*

  - Little explicit work on the nature of the morphological component and how it interacts with the syntax in unification-based frameworks.
  - How can (extended) word & paradigm realizational models of morphology (Anderson 1992, Aronoff 1994, Zwicky 1990, Stump 1993) can be embedded in these lexicalist frameworks? (see Ackerman & Webelhuth 1998, Blevins 2000, Koenig 1999, Orgun 1997, Riehemann 2000, Spencer 2000, Spencer and Sadler 2000, among others.)

- *Data-type modelled*

  - Complex predicates expressed by single morphological objects (= **synthetic exponence**) versus multiple independent elements in phrase structure (= **analytic exponence**), e.g., morphological (synthetic) v. periphrastic (analytic) causative constructions.
  - *Morphology competes with syntax* within LFG and OT-LFG.

- *Data-type exemplified* - SUBJ/OBJ predicate agreement for Mordvin (Uralic) tense and polarity paradigms:

(1) palit'iń (from Keresztés 1990:47)
kiss-PAST.1SG./2SG.
`I kissed you.'

- Synthetic exponence of affirmative 1st past tense: SUBJ/OBJ realized on verb

(2) eź-i-ťiń kunda (from Zaic 1998:198)
NEG-1stPAST-1SG/2SG.DEF catch
`I didn't catch you.'

- Analytic exponence of negative 1st past tense: expression consists of two syntactic pieces, but SUBJ/OBJ realized on negative verb not on *connegative form* of `main' verb

➢ *Two competing Hypotheses for the treatment of complex predicates*

Hypothesis 1: Syntactic composition[1]

- Pieces of analytically expressed tense constructions are syntactic co-heads whose information combines in phrase structure to produce a single clausal structure. (Holloway-King 1995, Nino 1999, Bresnan in press, among others)
- Similar types of information are associated with a single syntactic and morphological atom when they are expressed synthetically.
- Percolation of features reflects morpheme-based morphological assumptions in syntax. (see epigram)

(1) palit'iń
kiss-PAST.1SG./2SG.
`I kissed you.'

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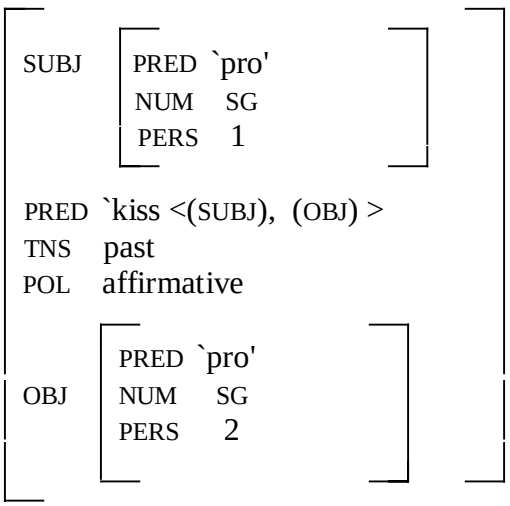

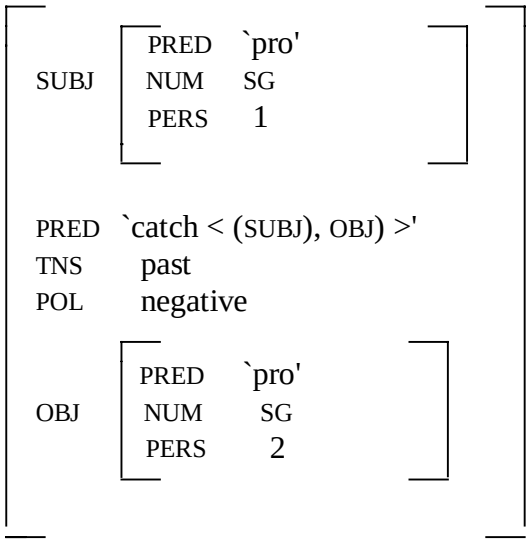

[1] There have been efforts to analytic expression of Uralic predicates within non-lexicalist frameworks. Two excellent and thought-provoking proposals in this tradition are Vainikka 1989 and Mitchell 1993.

Hypothesis 2: Morphological exponence

- Independent syntactic pieces are simply exponents of lexical representations for (complex) predicates.
- Synthetically expressed predicates also associated with lexical representations. (Ackerman & Webelhuth 1998, Spencer & Sadler 2000, Spencer 2000)
- Neither syntactic composition of information nor form driven composition of information in morphology.

➢ *Seminal insight of the realizational literature*: representations of LEXEMIC and morphosyntactic information are set in principled correspondence with their surface exponence. (= *morphosyntactic or grammatical word* and its formal exponence)

➢ *Seminal confusion in the lexicalist literature* - Lexical Integrity as a conflation of two notions (Bresnan & Mchombo 1995, Ackerman & LeSourd 1997):

Morphological Integrity:

Syntactic mechanisms neither make reference to the daughters of morphological words nor can they create new morphological words in constituent structure.

- What's similar between H1 & H2: Morphological Integrity - lexicon contains fully inflected and derived forms.

Morphological Expression:

Lexical entries (lexical representations) are only realized by synthetic word forms, not multiple syntactically independent elements.[2]

- What's different between H1 & H2: Morphological Expression:

On H2, Morphological Expression is a *markednesss* principle of encoding, permitting lexical representations to be interpreted as *lexical constructions* and, realized either synthetically or analytically.

➢ *Information types associated with lexical representations of predicates*:

	CORRESPONDENCE	
The C(-ontent)-theoretic Aspect	←----------→	The F(-orm)-theoretic Aspect
-Functional-semantic content: basic meaning, semantic roles, grammatical functions, subcategorization		-Categorial status - Morphophonological form
-Morphosyntactic content: tense, aspect, polarity, agreement, etc.;		

[2] Of course, I am excluding idioms from this characterization.

- *Simplified lexical representations for Mordvin predicates* - LEXEME specific realizations of general content-theoretic and form-theoretic correspondences:

C-Theoretic Representation: (predicate content)	F-Theoretic Representation: (predicate form)
1'.[kiss <SUBJ, OBJ>; TNS: 1st past; POL: **aff**; SUBJ: 1st SG; OBJ: 2nd SG/DEF.]	palit'iń < LEX + iťiń[3]
2'.[catch <SUBJ, OBJ>; TNS: 1st past; POL: **neg**; 1st SG; OBJ: 2nd SG/DEF.]	eź-i-ťiń kunda < eźiťiń + LEX

  - Same content as that found in f-structures.

- Two ways to distinguish H1 and H2 - H2 expects:

  - Constructional effects – Morphosyntactic information associated with the predicate is not a product of percolation of information from formal pieces (unless enormous amount of homophony, synonymy, or covert categories is permitted).
  - Paradigm effects – Morphosyntactic information distinctions found in one paradigm are introduced throughout a related paradigm.

III. Mordvin SUBJ/OBJ Predicate Agreement

- *Mordvin future marking*: SUBJ marking on future auxiliary `begin' from INDEF(inite) SUBJ paradigm, definite OBJ features provided by markers from POSS(essive) paradigm on infinitival form of the `main' verb:

(3) kaŕmi sajameť (from Keresztés 1990:48)
begin-3SG.INDEF hold-INF-2SG.POSS
`S/he will hold you.'

(4) karman sajemezt (from Keresztés 1990:48)
begin-1SG.INDEF hold-3PL.POSS
`I will hold them'

(5) karmat sajameń (from Keresztés 1990:48)
begin-2SG.INDEF hold-1SG.POSS
`You will hold me.'

  - Forms from the INDEF SUBJ paradigm usually associated with indicative present tense cooccur with infinitival form bearing inflection usually associated with possessor information.
  - Constructional Effect:
    SUBJ is construed as SUBJ of infinitive, POSS is construed as OBJ of infinitive, and tense is construed as future, in paradigmatic contrast with other tenses.

[3] LEX = LEXEME

- Specific pattern and forms of expression dependent on morphosyntactic feature sets.

➢ *Agreement Generalization*:

All (transitive) predicates reflect the PNM features for SUBJ and (definite) OBJ

- Paradigm Effect:
  Mordvin SUBJ/OBJ agreement distributed over future predicate, reflecting distinctions found with all other paradigmatically contrasting tense distinctions.

IV. **Votyak (Udmurt) Predicate Agreeement**

AFFIRMATIVE PRESENT TENSE: P-Permian (Serebrennikov 1963:235[4])

mɣnɣ - `go'

SG.1.	mɣnam
2.	mɣnad
3.	mɣna
PL.1.	mɣnamï
2.	mɣnadï
3.	mɣnazï

NEGATIVE PRESENT TENSE: P-Permian (Serebrennikov 1963:287)

SG.1.	om mɣnɣ
2.	ot mɣnɣ
3.	ok mɣnɣ
PL.1.	om mɣnɣ
2.	ot mɣnɣ
3.	ok mɣnɣ

- Distinctions between person & number in affirmative present tense.
- Only person distinctions in negative present tense.

➢ *Paradigms for 1st and 2nd conjugation for mïnï- `go' and daša `prepare' in Votyak (Udmurt*): (following Csucs 1998:290, but see Csucs 1990:51 and Serebrennikov 1963 for alternative transcriptions)[5]

AFFIRMATIVE PRESENT TENSE: Votyak

SG.1.	mïnišʲko	dašʲaško
2.	mïnišʲkod	dašʲaškod
3.	mïne	dašʲa
PL.1.	mïnišʲkom(ï)	dašʲašʲkom(ï)
2.	mïnišʲkodï	dašʲašʲkodï
3.	mïno	dašʲalo

NEGATIVE PRESENT TENSE: Votyak

SG.1.	ug mïnišʲkï	ug dašʲašʲkï
2.	ud mïnišʲkï	ud dašʲašʲkï
3.	ug mïnï	ug dašʲa
PL. 1.	um mïniške	um dašʲašʲke
2.	ud mïniške	ud dašʲašʲke
3.	ug mïno	ug dašʲalo

- Distinctions between person & number in affirmative present tense (as in P-Permian)

[4] ɣ is a diacritic used by Serebrennikov to indicate variable quality for a vowel: in the present reconstruction all of the uses of this symbol are assumed to have identical values.

[5] There is a striking amount of syncretism among the form within these paradigms much of which will be ignored for present purposes.

- Syncretism among forms for person in negative present tense, and number reflected on connegative forms.

- Paradigm Effects:
  (i) Introduction of person/number distinction for SUBJ agreement over the pieces of the analytic negative predicate, yielding the person/number distinction for SUBJ agreement orginally reflected in synthetic expressions of predicates.
  (ii) Preservation of certain aspects of stem form across polarity, e.g., -šʲk for 1st and 2nd person.

- Constructional Effect:
  Form *ug* is not determinate for person (except -2nd) and *mïniśʲkï* while determinate for singular number is not determinate for person (except -3rd), so combination of *ug mïniśʲkï* is realization of NEGATIVE 1ST SING PRESENT within NEGATIVE PRESENT TENSE paradigm.

AFFIRMATIVE FUTURE TENSE:	Votyak		NEGATIVE FUTURE TENSE:	Votyak	
SG.1.	mïno	daśʲalo	SG.1.	ug mïnï	ug daśʲa
2.	mïnod	daśʲalod	2.	ud mïnï	ud daśʲa
3.	mïnoz	daśʲaloz	3.	uz mïnï	uz daśʲa
PL.1	mïnom(ï)	daśʲalom(ï)	PL.1	um mïn*e*(*le*)	um daśʲa*le*
2.	mïnodï	daśʲalodï	2.	ud mïn*e*(*le*)	ud daśʲa*le*
3.	mïnozï	daśʲalozï	3.	uz mïn*e*(*le*)	uz daśʲa*le*

- Reinterpretation of original present as future.
- Since e.g., *mïno* is 3rd PL AFFIRMATIVE and NEGATIVE and 1st SG FUTURE what is the empirically verifiable morphemic composition of these forms?
- Paradigm Effect:
  (i) Consistent person marking on negative verb and number marking on connegative form yields person/number for SUBJ predicate agreement on pieces of analytic predicate.
  (ii) Regularization of person marking distinction within negative future, reflecting regular distinctions in affirmative paradigms.
- Specific pattern and forms of expression dependent on morphosyntactic feature sets.

IV. **Conclusions**

- When the predicates of Mordvin and Votyak are analyzed as *lexical constructions*, i.e., as lexical representations in which paradigmatically contrasting morphosyntactic feature sets have specific realizations, then,
- Analytic syntactic expression appears to be a type of morphological exponence.

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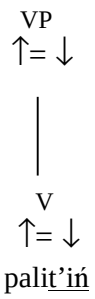
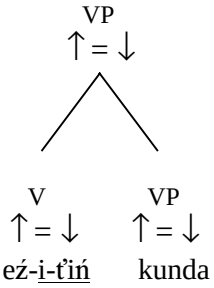
c-structure for example (1):





c-structure for example (2).