SLE, Naples, August 31 – September 3, 2016

Feature interaction and feature hierarchies: a typological account

Andrej Malchukov

(University of Mainz)

Largely based on:

Malchukov, Andrej. 2011. Interaction of verbal categories: resolution of infelicitous grammeme combinations. *Linguistics*, 49–1 (2011), 229–282

Typology of category interaction

- Syntagmatic dependencies between grammatical categories:
  - Markedness studies: The number of the cross-cutting inflectional distinctions of the unmarked gram is larger as compared to the marked one (Greenberg 1966/Croft 1990)
    - Cf. in Koryak (Mel'čuk 1998: 26) case forms are distinguished only in the unmarked (singular) number, while numbers are distinguished in the unmarked (absolutive) case.
  - Aikhenvald&Dixon 1998: The choice within one category can influence/restrict the choice within another category:
    - E.g. in negative forms fewer TAM distinctions as compared to the positive.
  - Xrakovskij 1996: The interpretation of one grammeme (the "recessive" grammeme) may depend on another one (the "dominant" grammeme);
    - For example, interpretation of aspects may differ in imperative as compared to indicative (hence imperative is "dominant" with respect to aspect and other verbal categories; Xrakovskij 1996).

Types of infelicitous combinations

- Malchukov (2011): functionally **infelicitous combinations** are either blocked or reintepreted
- If the respective values are expressed cumulatively, as is normally the case in fusional languages, a paradigm gap results.
  - For example, in Romance languages the distinction between perfective and imperfective (aorist/imperfect) is restricted to past tense and is not found in the present
- If categories are values are expressed independently, the outcome is more diverse:

Resolution of infelicitous combinations

- If categories are values are expressed independently, the outcome is more diverse:
  - 1) Blocking: the infelicitous combination is not available at all, due to the mutual restrictions of the categories in question; (symbolically X * Y);
  - 2) Asymmetric meaning shift: the infelicitous combination is available, but involves a change of meaning of one of the grammemes (the "recessive" grammeme in terms of Xrakovsky 1996); (X ⊃ Y)
  - 3) Symmetric meaning shift: the infelicitous combination is available, but involves a change of meaning of both grammemes; (X ∩ Y).

Blocking: mood combinations in Korean

- Restrictions on mood/ illocutionary force combinations in Korean (Sohn 1994):

  - declaratives and interrogatives share indicative and retrospective moods,

Korean (Sohn 1994: 338, 339, 342, 40, 45)

(1)   Ka-n-ta /   ka-te-ta

go-IND-DC/go-RETR-DC

'S/he goes/went (I noticed)'

(2)   Mek-ess-n-unya

eat-PST-IND-INT.PLN

'Did (s/he) eat?'

(3)   W-ass-te-la

come-PST-RETR-DC

'He came (I noticed)'

Blocking: mood combinations in Korean

- imperatives and propositives share the requestive mood.

- Korean (Sohn 1994: 338, 339, 342, 40, 45)

(4)   Po-si-p-si-o

see-SH-AH-REQ-IMP.DEF

'Please, look'

(5)   Wuli ilccik ttena-sip-sita

we   early   leave-SH-AH-REQ-PROP

'Let's leave early!'

NB other mood combinations (declaratives and interrogatives with requestive mood, or imperatives and propositives with indicative and retrospective moods) are **blocked**.

Asymmetric infelicitous combinations

- **A "recessive" category shifts in the context of a "dominant" one (X ⊃ Y).**

- **Even (Tungusic)**

The 1st person plural **exclusive** forms (*d'uu'-vun* ,our (not your) house') are reinterpreted as 1st person **inclusive** readingwhen used with imperatives:

Even (Malchukov 2001)

Hör-de-kun

Go-IMPII-1SG

'Let's go!'

- Imperative is a dominant category (IMPER ⊃ Person); also elsewhere imperative grammemes are usually dominant with respect to other categories (Xrakovsky 1996)

Symmetric interaction

- **In symmetric combinations both grammemes shift in meaning (X $\cap$ Y)**

  - In Kwamera (Lindstrom & Lynch 1994:) future and non-future grammemems appear in different slots and may co-occur.

  - This combination (FUT*NON-FUT) is reinterpreted as immediate future.

Asymmetric ICs: present perfectives

- **The best known examples of asymmetric ICs in the domain of tense/aspect interaction: present perfectives.**

- Reinterpretation of present perfectives in Slavic languages (Breu 1994; cf. Comrie 1976)

    - In East Slavic (e.g. Russian) tense grammeme is recessive (PFV ⊃ PRES): this combination is interpreted as future (except for special contexts: performative etc)

      delaet → *s-delaet*

      do.PRES.3SG   PFVR-do.PRES.3SG

      'does'   'will do'

- Similarly, in Kartvelian presents perfective forms (present forms with perfectivizing prefixation) have a future reference (Arkadjev 2015)

Present perfectives

- In South Slavic (e.g. Bulgarian) the default meaning of the perfective present is present narrative or habitual rather than future.

  Bulgarian (Comrie 1976: 69):

  Speglednet se,   pousmixnet,   devojki…

  glance.PFV.PRES.3PL REFL smile.PFV.PRES.3PL girls

  'The girls (used to) look at one another, smile at one another…'

  - **In Bulgarian perfective aspect is recessive (PRES ⊃ PFV)**
  - **Thus, in East Slavic (perfective) aspect is dominant with respect to tense, in South Slavic (present) tense is dominant with respect to aspect (Breu 1994)**

Optimal interpretation of the present perfective forms in Russian

Input: *s-delaet* [pres; pfv]	Fit	Faith(asp)	Faith(tense)
<PRES; PFV>	*		
☞ <-PRES; PFV>			*
<PRES; -PFV>		*	
<-PRES; -PFV>		*	*

- **The most faithful interpretation loses due to a violation of a higher ranking Fit.**
- **The optimal candidate is decided by the ranking of the Faith**
- **OT-semantic constraints** (cf. Zeevat 2000; Blutner 2000; Hendriks & de Hoop 2001)
  - **Faith-Int**: faithful interpretation of a given form; penalizes meaning shifts.
  - **Fit**: interpretation should be consistent with the context

Interpretation of perfective and imperfective presents in Russian in Blutner's bidirectional OT

	Fit	FAITH (asp)	FAITH (tense)
delaet <PRES; PFv>	*	*	
✌ *delaet* <PRES;-PFv>			
delaet <-PRES; PFv>		*	*
delaet <-PRES; - PFv>			*
s-delaet <PRES; PFv>	*		
s-delaet <PRES;-PFv>		*	
✌ *s-delaet* <-PRES;PFv>			*
s-delaet <-PRES;-PFv>		*	*

■ For deriving the future interpretation of perfective presents, further candidate forms in the past tense should be considered in this evaluation

Present perfectives and markedness

- Resolution of PRES*PFV combination is partially determined by markedness in an aspectual opposition

  - If PFV unmarked (zero forms), it is usually recessive:

<Itelmen> (Volodin 1976)

t-entxla-ø-s-kicen

1sg-lead-pfv-pres-3sg.O

'I lead him'

NB The present does not shift in the context of a zero perfective.

Present perfectives and markedness

- In Limbu (Kiranti) both present and perfective are unmarked: either may be recessive.

Limbu (Van Driem 1994)

Hɛn kɛ-dzok-ø-ø?

what you-do(-NPRET-PFV)

'What are you doing (generally)?'

'What are you going to do?'

- Generally: unmarked (zero forms) tend to be recessive

Interim discussion: Resolution of infelicitous combinations

- **Markedness**
  - The unmarked grammeme (with a more general meaning, showing more polysemy) is more likely to be recessive as compared to the marked one.
    - Cf. the discussion of zero perfectives.
- **Scope**
  - The "external" grammeme with a wider scope is more likely to be dominant as compared to the "internal" one.
    - de Swart 1998: "aspectual coercion"
      - "aspectual coercion": the basic actional value is readjusted to satisfy the selectional restrictions of an aspectual operator or an adverb (De Swart 1998)

Factors underlying grammeme combinability (Malchukov 2011)

- **1) Semantic compatibility**
  - *Semantically infelicitous combinations avoided, or if available, reinterpreted*
- **2) Markedness**
  - An unmarked grammeme shows less restrictions on combinability as compared to the marked one (Croft's distributional markedness)
- **3) Relevance:**
  - Aspectual distinctions favor Past tense, since they are most relevant for realized actions (cf. Comrie 1976).
- **4) Economy effects:**
  - Overt expression of a semantically redundant grammeme is avoided.
   - Imperatives normally lack not only past but also future forms

Infelicitous combinations and markedness: markedness hierarchies

- Different factors (motivations) can be integrated into one model through the notions of "local markedness" and markedness hierarchies.

  - Patterns of local markedness (Tiersma 1982) are better viewed as markedness hierarchies, reflecting the relative naturalness of certain grammeme combinations (Croft 1990: 150).

- On this view an infelicitous combination is regarded as the most marked combination of values on the markedness hierarchy.

  - Con be also represented as markedness hierarchies in Optimality Theory (OT-syntax)

Markedness hierarchies: examples

Person hierarchy for imperatives (Auwera, Dobrushina & Gusev 2005)

$$2 \quad > \quad 1PL \quad > \quad 3 \quad > \quad 1\,SG$$
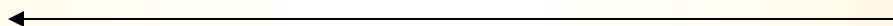
Imperative

- In some languages (e.g. Armenian) imperative forms is restricted to the 2nd person,
- in Eskimo (West Greenlandic) it is restricted to the 2nd and 1st plural inclusive,
- in Finnish it is found in all persons apart from 1st sg,
- and in Lingala it extends to all person categories (see van der Auwera, Dobrushina & Goussev 2004 for further discussion and exemplification).
- However, in the latter case, the infelicitous 1st person (singular or exclusive plural) imperative combination is likely to be reinterpreted, as shown above for Even.

Markedness hierarchies: examples

- **Tense Hierarchy for the (perfective) aspect** (Malchukov 2011)

Past >   **Future >**   **Present**
←——————————————————————————

Perfective

- **Past outranks Future due to relevance; both outrank Present due to semantic compatibility.**
- **Examples from European languages (cf. Comrie 1976)**
  - Romance languages the aspectual opposition obtains only in the past,
  - in Greek it is found in past and future, but not in the present.
  - In Slavic languages it is extended to the present as well but the present perfective combination is reinterpreted

Theoretical setting

The advocated approach to syntagmatic interaction is more aligned with:

- Item-and-Arrangement models (including Mel'čuk's Meaning-Text Theory and Distributed Morphology), rather than Word-and-Paradigm models

- With models incorporating comprehension perspective (OT semantics, or bidirectional OT), rather than purely production based models (most versions of Minimalism)

- With semantic approaches relying on the basic meaning (cf. Strongest Meaning Hypothesis in the work of Dalrymple et al 1998 on reciprocals; cf. also "derivational" approach to aspectual composition in Croft 2012: 18-26), rather than with "vagueness" approaches relying on a general meaning or underspecification.