IMPERFECTIVITY: CAPTURING VARIATION ACROSS LANGUAGES.

1.   Introduction. Languages display variation in TAM systems. Interested in the formal underpinnings of such a variation, we examine imperfectivity readings, comparing Romance and Slavic with Amazonian Mẽbengokre (Jê, Central Brazil). When contrasting readings in imperfect(ive)-like Viewpoint categories crosslinguistically, a complex picture emerges; languages may range from (a) highly 'permissive' – i.e. a considerable number of readings (Spanish, with a rich list of intentional imperfects)-, (b) 'intermediate' (Czech, without intentional imperfectives), to (c) 'restrictive' (Mẽbengokre, with specific particles with a specialized imperfect-like reading). We argue that variation in the range of readings shows that these must be hardwired into the semantics of an Imperfective operator (IMPF). We offer a modal account of IMPF and capture variation via accessibility relations ('modal bases') similar to those for modal verbs (Kratzer 1991). We thus abandon both a popular Slavic view – i.e. imperfectives are semantically unmarked so may display many readings -, and a popular Romance view - i.e. imperfect readings are mainly due to pragmatic coercion.

2.   Illustrating variation. Romance imperfect meanings include habitual, iterative, generic, and a 'modal' series covering 'intentionals', (1), 'ludics', (2), etc., as in Spanish:

(1)   *Pedro iba al teatro mañana*.   " Peter was-going to the theatre tomorrow"

(2)   *Tú eras la reina*.   "You were (Impf) the queen." (future role playing)

Slavic imperfect(ive) variation offers crisscrossing levels of restrictiveness. Shared meanings are habitual, generic, and iterative, but 'factual' imperfectives in Russian and Polish, as in (3), are absent in Czech / Slovak, and South Slavic.

(3)   *Jola czytała "Wojnę i pokój"*.
        J. read.Impf W. and P.   "J. has read War and Peace"

A second contrast is in 'modal' readings. Rivero (2009) and Rivero & Arregui (2010) argue that 'intentionals' exist in South Slavic -Bulgarian (4)-, not Russian or West Slavic.

(4)   *Ivan ne leteše li dnes za Milano*.
        Ivan neg fly.past.Impf Q today to M.   "Wasn't I. going to fly to M. today?"

Bulgarian, however, lacks 'ludics', with the imperfect equivalent of (1) in (4) fine, but imperfect equivalents of (2) ill formed. In sum, Slavic Imperfectivity is subject to considerable variation, with various levels of restrictiveness depending on the language.

Mẽbengokre represents still a more restrictive case, with distinct particles for progressive, conative, inceptive etc. readings associated with Indoeuropean imperfective morphology. (5) illustrates progressive mõ , and (6) inceptive-like mã.

(5)   *ije   krẽn   o=mõ*.
        1ERG eat.N.SG   TR=go.V.PL   "I'm eating it up, little by little."

(6)   *ije   krẽn   mã*.
        1ERG eat.N.SG   APPROX   "I'm about to eat it."

We consider Mẽbengokre particles Viewpoint aspectual operators. As higher predicates with nominalized complements (Salanova 2007), they are structurally parallel to IMPF with a VP-complement in Romance or Slavic, but display specialized denotations. In 3, we provide a unified analysis of IMPF to capture crosslinguistic similarities/ differences.

3.   The semantics of IMPF. We adopt a modal analysis with IMPF as operator quantifying over possible situations, inspired by Cipria & Roberts (2000) framed within situations semantics (Kratzer 1989, 2007), as in (7).

(7) $\lambda P_{<l, <s, t>>}. \lambda s_s. \forall s_s': MB_\alpha(s)(s') = 1, \exists e: P(e)(s') = 1$

MB$_\alpha$ is an accessibility relation ('modal base').

Given (7), IMPF combines with a property of events and outputs a property of situations true of a situation s iff all situations s' accessible to s given an accessibility relation are situations in which there is an event with the relevant property (see Rivero & Arregui 2010). Variation in the interpretation of imperfectivity is captured in a manner analogous to proposals on the flavors of modality (Kratzer 1981, 1991): differences in readings follow from differences in MBs (e.g. 'ongoing' vs. 'generic', etc. accessibility).

4.   Capturing crosslinguistic variation in imperfectivity. Contextually given MBs in the domain of true modals have been used to account for variation in the interpretation of a single modal. However, recent work on modality (Rullmann & al. 2009) argues that some languages are very restrictive, with MBs specified lexically. We propose to extend this variation to imperfectives, and argue that languages can restrict the choice of MB for IMPF, thereby restricting the range of readings for imperfective morphology.

Romance and Slavic allow IMPF to access a variety of MBs on the basis of context, resulting in habitual/generic and ongoing readings of imperfect(ive) morphology. However, MBs may also be determined by linguistic form, leading to considerable variation. Rivero & Arregui (2010) argue that in South Slavic imperfect(ive) Involuntary States such as Slovenian (8), the accessibility relation for IMPF is restricted by syntactic structure (also Rivero, Arregui & Fracowiack 2010 on Polish).

(8) *Janezu se   je   plesalo.*

J.Dat   Refl   be.3Sg danced.Impf   "John was in the mood for dancing."

In other words, (8) counts as a past urge to dance, not a past dancing event, because in a syntactic frame with a dative subject and a reflexive, IMPF in South Slavic accesses an inertial-type MB resulting in an 'intentional'-type reading.

Mẽbengokre represents still a more selective option: a MB determined by lexical structure. MBs associated with various flavors of imperfectivity are grammaticalized in different particles, with choice of MB hardwired into the interpretation of each. For progressive mõ in (5), the denotation is (9): IMPF can only access an *even inertia* MB – it quantifies over situations s' in which the events that have actually started in s continue without interruption (along the lines of traditional Dowty-style inertia):

(9) $[[\mathbf{m\tilde{o}}_{IMPF}]] = \lambda P_{<l, <s, t>>}. \lambda s_s. \forall s_s': MB_{event\text{-}inertia}(s)(s') = 1, \exists e: P(e)(s') = 1$

Given this MB, IMPF quantifies over situations matching an actual situation with respect to events that have started (this is not a 'purely intensional' reading).

5.   Conclusion. In sum, we argue for variation in the syntax / semantics of imperfectives across languages, with apparently different mechanisms for the projection of Viewpoint Aspect sharing an underlying architecture. Differences in the interpretation of IMPF need to be encoded in the semantics: coercion or 'markedness'-style accounts cannot explain the range of variation. We also note and account for parallelisms between IMPF and "true" modals as to flexibility in interpretation across languages.

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