Perfective aspect and actuality entailments: A cross-linguistic approach

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Overview. According to Bhatt (1999) and Hacquard (2007), ability assertions in languages which overtly encode a perfective/imperfective distinction give rise to actuality entailments (AEs) in the perfective. This is illustrated for French in (1): the ability assertion in the perfective aspect entails that an event of the relevant type took place in the actual world, as revealed by the infelicity of the second clause.

(1) Jane a pu soulever cette table, # mais elle ne l'a pas soulevée.
Jane ***could-PFV*** lift this table, # but she didn't lift it.' (French; Hacquard 2007:21)

In this paper we show that Bhatt/Hacquard's generalisation is not universally valid; in St'át'imcets (Salish), Gitksan (Tsimshianic) and Mundurukú (Tupí), ability statements in the perfective lack AEs. In contrast we show that both Blackfoot (Algonquian) and Malagasy (Austronesian) *do* have AEs in the perfective. We suggest that the cross-linguistic difference is signaled by an explicit cue: only languages with overt perfective morphology have actuality entailments, while languages with unmarked perfectives lack actuality entailments. We propose that the lack of AEs can be accounted for if the unmarked perfectivity in these languages is analysed as being lexically encoded in the main predicate, as opposed to being encoded by a zero perfective morpheme.

Hacquard's analysis. Hacquard (2007) derives AEs via two main assumptions: (i) perfective aspect takes three arguments: a world, a predicate of events, and a time; (ii) the aspect merges low in the event argument slot, but must raise to a position directly below Tense in order to combine with a time. In its raised position, the perfective aspect's world argument cannot be bound by a structurally inferior ability modal and must be bound by the default binder – i.e., the actual world. This entails that the event under consideration occurred in the actual world. While Hacquard only aims to account for French and Italian, the components of her analysis are not specific to these languages; the account predicts that all else being equal, a language with an (im)perfective contrast and a low ability modal should display AE effects.

Some languages lack AEs. Hacquard's analysis makes the wrong predictions for at least three unrelated Amerindian languages: St'át'imcets, Gitksan and Mundurukú. Data are given in (2-4), which are all in the perfective aspect (indicated by the absence of obligatory overt imperfective marking). The ability assertions in these languages have an *implicature* of actuality, but not an entailment; see Davis et al. (2008) for the St'át'imcets findings, and Peterson (in prep.) for the Gitksan.

(2) ***ka***-cát-s=kan-***a*** ti=tíipvl=a, t'u7 áy=t'u7 kw=en cat-s
CIRC-lift-CAUS=1SG.SUBJ-*CIRC* DET=table=EXIS but NEG=just DET=1SG.POSS lift-CAUS
'I was able to lift the table, but I didn't lift it.' (St'át'imcets)

(3) ***da'akhlxw***-y' dim hahla'asd-y' kyo'ots, ii ap neets
CIRC-1SG FUT work-1SG yesterday CONJ CONFIRM NEG
'I could have/was able to work yesterday, but I didn't.' (Gitksan)

(4) w-e-orok ***put*** o-je-ku kapusu imẽnpit o-ce-orok g̃u
1sg.s-POSS-hunt *CIRC* ojeku yesterday then 1sg.s-COREF.POSS-hunt NEG
'I was able to hunt yesterday, but I didn't hunt.' (Mundurukú)

On the other hand, Blackfoot possesses AEs, as shown by the contradictory status of (5); the same is true of Malagasy (Phillips 2000).

(5) ana Joel ***ihkott***-sspínni-m-wa omi iitáísooyo'p # ki máát-sspinni-m-waatsiks
DEM Joel *CIRC.PFV*-lift.VTI-3>IN-3 DEM table CONJ NEG-lift.VTI-3>IN-3:NAFF.SG
'Joel was able to lift that table … but he didn't lift it.'

Generalisation. We suggest that the presence or absence of an actuality entailment in the relevant circumstances is signaled by an overt clue: only languages with overt perfective morphology yield AEs, while languages with unmarked perfectives lack AEs. Note that in French there is overt material signaling the perfective aspect (the *passé composé* in (1)). The same is true in Malagasy, and is at least plausibly the case in Blackfoot: the absence of the imperfective gives rise to a perfective reading, which, in the context of the ability modal, is always morphologically signaled by a vowel change in initial position. On the other hand, the non-AE languages we have investigated all contrast an overt imperfective marker with a null, or default perfective.

Proposal. We propose that the lack of an AE can be derived if the default perfectivity associated with unmarked predicates in St'át'imcets, Gitksan and Mundurukú is lexically encoded in the main predicate - this is illustrated below for St'át'imcets "lift." The predicate takes an individual, an event and a time, asserting that the runtime of the event is contained within that time variable:

(6) $\| \text{cát} \|^{w} = \lambda x.\lambda e.\lambda t.\ \tau(e) \subseteq t \ \&\ \text{LIFT}(x)(e) \ \&\ e \text{ is in } w$

Recall that Hacquard's analysis relies on a type-mismatch that forces perfectivity (and its world argument) to raise above the ability modal, where it can combine with a time argument. Its world argument can then only be bound by the default binder - the actual world - resulting in an assertion that an event took place in the actual world. If perfectivity in St'át'imcets, Gitksan and Mundurukú is lexically encoded on the predicate as schematized above, however, no type-mismatch arises - after the individual and event variable are satisfied, Tense merges in to provide a time argument for the predicate. Perfectivity (and its world argument) need not move, and the world variable can be bound in-situ by a structurally superior ability modal. The statement thus only asserts that an event takes place in a world compatible with the subject's abilities, and not necessarily the actual world. Note that our analysis requires that imperfectivity in these languages override perfectivity, as opposed to merely asserting imperfectivity; we propose a modal analysis along the lines of Portner's English progressive (1998), where only a non-final sub-event, not an entire event, is asserted to take place in the actual world.

Evidence. The analysis proposed above stands in contrast with an analysis where the null or default perfectivity associated with bare predicates in St'át'imcets, Gitksan and Mundurukú is encoded via a zero-morpheme structurally analogous to the overt perfective. The behaviour of clitics in St'át'imcets and Gitksan provide evidence against such an analysis, however. Because imperfective markers in these languages can support subject clitics, one would predict that a zero-perfective would be able to do the same. In Gitksan, however, the predicted clitic-initial utterances are ungrammatical, while clitic-initial utterances in St'át'imcets are necessarily interpreted as imperfective (Davis 1999). These data suggest that a meaningful absence in language does not always correspond to a zero-morpheme.

Further questions: the imperfective. Even more complexity is added to the cross-linguistic picture when we broaden the domain to include *imperfective* ability assertions. We have already seen that St'át'imcets, Gitksan and Mundurukú falsify the perfective half of Hacquard's original predictions, by

lacking AEs. Perhaps even more strikingly, Blackfoot and Malagasy falsify the imperfective half of Hacquard's predictions: their imperfectives *have* AEs. Thus, the imperfective counterpart of (5) in Blackfoot is still contradictory. At this stage we can only speculate on a solution to this problem, but suggest that the imperfective AEs, in Blackfoot at least, derive from the fact that the Blackfoot imperfective, unlike the French imperfective, requires verifying instances.

References

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