Actuality Entailment in Akan

Augustina P Owusu

In this paper, we show that the current dominant theory of actuality entailment (AE), Hacquard's (2006, 2009) scope theory, cannot be extended to Akan (Niger-Congo). The scope theory fails to extend Akan for two main reasons; there is no aspect shift in Akan and imperfective does not obviate AE. We, therefore, propose a modal base theory of AE, a totally realistic modal base. We adopt a totally realistic modal base analysis though Hacquard (2008) refers to it as a non-starter for a number of reasons. One of Hacquard's (2008) critique of such a theory is that we would have to assume an analysis that suggests that aspect influences the type of modal base a modal receives. For our account, we are not assuming that aspect is triggering the totally realistic modal base; the modal base is a property of the ability modal itself. The current theory is not competing with the scope theory or any other AE theory as a cross-linguistic solution for AE. It is rather one of the analyses that can be used to account for a phenomenon that appears to involve different mechanisms cross-linguistically. The current theory solves the problem of vacuous aspect shift which had to be assumed for the scope theory to work in Akan. It does not, however, sufficiently address the problem of AE with imperfective in Akan.

Analysis Aspect shift is motivated by Hacquard (2006,2010) to solve the type mismatch between lower aspect and V but also essentially, to put aspect in a position where it scopes above the modal. Aspect in a higher position is able to bind the world argument of the modal and its trace in the lower position. With independent evidence from Kandybowicz (2015), we show that there is no type mismatch necessitating aspect shift in Akan and that aspect is interpretable in-situ. Kandybowicz (2015) proposes a rich middle field for Akan, arguing that aspect is in v and not above V as proposed in the literature. He claims that the past tense marker *na* does not have EPP features and thus does not prompt spec V to spec TP movement. In a matrix clause, therefore, *na* always precede the subject.

1. Na   Kofi kasa.
   PST Kofi kasa

   'Kofi used to speak/talk.'

Based on the distribution of *na*, if aspect is being moved to a position below T, we expect that it should precede the subject as well, but it does not.

2. * a   Kofi kasa.
      Perf Kofi kasa

We argue that aspect is of type $<<\varepsilon t> <i<st>>>$.
In addition to a lower aspect, we propose that *tumi* has a totally realistic modal base when it is interpreted as ability. A modal base f is totally realistic relative to a world of evaluation w *iff* $\{w\} = \cap f(w)$. $\exists w^1$ compatible with circumstances in w s.t. $P(t)(w^1)$. The meaning of [[tumi]] is $\lambda P<<i<st>>.\lambda t.\lambda w. \exists w^1$ compatible with circumstances in w s.t. $P(t)(w^1)$. This is similar to the meaning proposed by Hacquard (2006) for circumstantial modals in general. The only difference is the kind of worlds *tumi* quantifies over. This makes two predictions about the data in Akan distinguishing it from both French and English. One, in simple sentences, i.e. abstracting from tense and aspect, a sentence with *tumi* only has the AE reading, there is no modal meaning. *Can* and *able* in English and *pouvoir* in French, all have a modal meaning in simple sentences. As existential modals, the truth conditions of, for instance, 3 is not dependent on there bing an actual

swim event by John. The sentence is true if only the existence of such an event is compatible with the circumstances. *Tumi*, on the other hand, requires that there is an actual event in the actual world.

3. John can fly planes.

4. Kofi tumi twi   plane.
   Kofi MOD drive plane
   'Kofi can fly a plane.'

The second prediction follows from the first. We predict that a simple sentence with *tumi* and a perfective sentence with *tumi* will have the same truth conditions. A non-modal sentence is necessary evaluated in the actual world. *Tumi* quantifies over the world of evaluation of the non-modal sentence, the actual world. 5b and 5a however, differ on their presuppositions.

5. (a) Kofi tumi twi   plane.
       Kofi MOD drive plane
       'Kofi can fly a plane.'
   (b) Kofi twi   plane.
       Kofi drive plane
       'Kofi fly a plane.'

The modal ability or non-AE reading is expressed by a different modal *betumi*. We argue that it is the availability of this modal that differentiates Akan from other languages. In most languages, the ability modal is ambiguous and needs to be disambiguated by aspect or other structural elements.

6. Kofi betumi twi   plane nanso ɔ-   n-   twi   plane da.
   Kofi MOD   drive plane but   3sg- NEG- drive plane never

   'Kofi can fly a plane but he has never flown one before.'

As a consequence of the theory, we predict that imperfective sentences with *tumi* in Akan will not have AE interpretations, just the modal reading. *Tumi* quantifies over the world of evaluation of the imperfective sentence. The imperfective as argued by Hacquard (2006) has a modal as part of its meaning. Like a regular modal sentence, imperfective sentences are evaluated relative to an ideal/best world where the event denoted by the VP is successfully concluded. When *tumi* combines with imperfective, just like the perfective, the sentence should retain the original world of evaluation. The empirical evidence, however, contradicts this prediction. Imperfective + *tumi* yields an AE; the sentence is interpreted like a non-modal sentence.

7. # Kofi tumi twi   plane nanso ɔ-   n-   twi   plane da.
     Kofi MOD drive.HAB plane but   3sg- NEG- drive plane never

   'Kofi can fly a plane but he has never flown one before.'

Future research is needed to further explain the interaction of *tumi* and imperfective in Akan.

References Hacquard, V. 2009. On the interaction of aspect and modal auxiliaries. Linguistics and Philosophy 32 (3): 279-315. Hacquard, Hacquard, Valentine. 2006. Aspects of modality. Ph.D. thesis, Massachusetts Institute of Technology. URL http://people.umass.edu/hacquard-thesis.pdf. Kandybowicz, Jason. "On prosodic vacuity and verbal resumption in Asante Twi." Linguistic Inquiry (2015).