Rethinking ability: ability as modality and ability as action
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Main puzzle. In recent literature, ability modals created a tension around the question of how to properly handle the so called ‘actuality entailment” (Bhatt 2001):

(1) Last night, John could/was able to drink twenty beers. (# and he did not).

(2) a. O Janis [TP borese [MoodP na [VP milisi]]] (# but he did not)
   The John can.perf.past SUBJ speaks.perf.nonpast
   John was able to speak (# but he did not)

b. O Janis [TP boruse [MoodP na [VP milisi]]] (but he did not)
   The John can.impf.past SUBJ speaks.perf.nonpast
   John could have spoken.

In Greek, according to Bhatt, perfective past (PP) creates the AE effect: we notice a difference between (2a) with the PP which allows AE, and the imperfective version (2b) which remains a claim about John’s ability only. Bhatt argues that the difference is lexical: the PP borese is an implicative verb like “manage” which is veridical (Giannakidou 1997, 1998) and allows AE. Hacquard 2009, on the other hand, claims that the AE is the result of the relative positions of the modal and perfective aspect: when the perfective scopes over the modal, AE is forced. In this paper, we will challenge Hacquard’s analysis, by examining in more detail the syntax and semantics of ability modals in Greek. We provide new evidence in favor of a lexical distinction in Greek between general ability, which is indeed modality, and action dependent ability, which is not modality. Our analysis draws on a classical distinction from Aristotle (On interpretation; for the usefulness of this distinction see also Mari and Martin 2009), and shows ability-as-action comes with a distinct syntax form ability modality, a syntax that is independent of tense and aspect. The meaning of ability as action is a non-modal verb meaning akin to manage, we will argue, so our approach can be seen as a refinement and further support of Bhatt’s original idea.

Hacquard’s thesis and novel facts from Greek Hacquard presents two main arguments in favor of her thesis, and indirectly against the ambiguity analysis, (i) the AE is a general pattern of ability modals thus extends to universal modals, and (ii) the AE relies crucially on perfective aspect. Our data show both (i) and (ii) to be problematic, and we will give evidence that the AE arises even with imperfective aspect in Greek when a particular syntax obtains. Regarding the first argument in (i), notice that the universal perfective does not produce AE in Greek:

(3) a. O Janis [TP prepi [MoodP na [VP milisi]]] (but he will not)
   The John must.impf.nonpast SUBJ speaks.perf.nonpast
   John has to talk (but he will not)

b. O Janis [TP eprepe [MoodP na [VP milisi]]] (but he did not)
   The John must.impf.past SUBJ speaks.perf.nonpast
   John had to talk (but he did not)

Therefore, at least in Greek, the AE is not a generalizable phenomenon, but limited to the ability word “bori”. Regarding the second argument (ii), notice crucially that AE arises also in the imperfective (habitual) and in the present tense the present tense:
(4) O Janis **borouse** ke **epine** 10 bires kathe vradi tin epoxi ekini (# ala den tis epine)
John **could.imprf.** and **drank.imperf** 10 beers every night that time
John used to drink 10 beers every night at that time. (#And he didn’t).

(5) O Janis **bori(imperf.)** ke **pini(imperf.)** 10 bires kathe vradi (# ala den tis pini)
John drinks ten beers every night. (# but he doesn’t)

These examples are important for three reasons. First, they show that perfective or past are not crucial to the AE reading. Second, we have a distinct syntax: a ke-complement (lit. “and”) instead of the expected na. With the na complement, the AE does not arise as we saw in 2b. Third, the ke-complement is also compatible with implicatives (Giannakidou 1997, 2009):

(6) O Janis **katefere** ke **ipje** 10 bires.
The John managed.past.perf. and drunk.past.perf ten beers
John managed to drink ten beers.

Hence, we must conclude that, at least for Greek, the AE is not a reading that concerns simply the ability modal and the perfective past, so Hacquard’s analysis will not be able to explain these data. Both kataferno and the AE sentences with bori license an inference of difficulty, or considerable effort on the part of the agent, and the syntactic parallel additionally makes it plausible to think of the AE as being verb akin to kataferno.

**Proposal** Our main analytical claim is that there are two kinds of ability attributions. One is the ability-as-modality, and the other one is ability-as-action. Words like bori, can and their equivalents can express both kinds of ability. Following Giannakidou 2001, we treat ability modality as a universal quantifier over ability words (the ability-modal base,) a function from w to worlds w’, at least as normal as w, compatible with what an agent x is capable of doing at w :

(7) a. $K_{ability}(x) (w) = \{w': \forall p [x \text{ is capable of } p(w) \rightarrow p(w')]\}$

$Bori$ p is true in a world w with respect to an ability modal base $K_{ability}(x) (w)$ and an ordering source $\prec_w$ (“be at least as normal as”) iff: For all worlds $w'$ in $K_{ability}$, there is a world $w^\prime$ in $K_{ability}$ such that $w^\prime \prec_w w'$, and for every other world $w'' \prec_w w$ in $K_{ability}$, p is true in $w''$.

(ABILITY CAN; Giannakidou 2001)

See also Portner 2009 for support of the claim that the ability modal cannot be just a simple existential quantifier; but even if one takes an existential account, the important thing here is that the ability modality is ‘regular’ modality. Ability as action, on the other hand, is a propositional attitude which, unlike other attitudes, does not contribute a separate eventuality into the logical form. E.g. John saw Mary cross the street, involves two events, one of seeing and one of crossing the street, and the second is the object of the first. John managed to cross the street involves only one event of John crossing the street, and the contribution of manage is visible only as a conventional implicature of effort: it took some effort to cross the street. Bori and could have exactly the same implicature in the AE reading.

(6) Ability-as-action

$x bori p$ is defined in a context iff doing p involves some degree of difficulty for the x; when defined, $x bori p$ asserts in the context that p is true.

Ability as action is thus a veridical implicative verb, in contrast to the ability modal, which is nonveridical. Hence the AE is not something special, just the expected veridicality of an implicative (Giannakidou 1998). Evidence for lexicalization of action bori comes from (a) the fact that action bori selects the complementizer ke—aligning with some other veridical verbs like
vlepo (see), arxizo (start) in Greek, and especially kataferno (manage), its kin; and (b) that the AE is independent of tense/aspect when bori appears with the ke complement, as we showed.

Selected References
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