Actuality Entailments in the present: ability modals and perception verbs

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The puzzle

Past ability statements are ambiguous:

(1) Sam could lift a fridge {yesterday/in those days}.

Implicative Reading = Actuality Entailment (AE)

Present ability statements lack this ambiguity:

(2) Sam can watch Saturn {right now/when it’s dark}.

Except with perception verbs:

(3) Sam can see Saturn {right now/when it’s dark}.

What explains this pattern?
Proposal

(1) In the present as in the past:
- The ability reading (= no AE) is due to a generic operator GEN, associated with the imperfective (Bhatt 1999).
- The implicative reading (= AE) arises due to perfective. Perfective scopes over the modal and anchors prejacent event in the actual world (Hacquard 2006, 2009)

(2) AEs are contingent on lexical aspect of prejacent, in particular its ability to combine with perfective.
→ Only perception verbs can do so in the present, and hence trigger AE.
- Present Perfective Paradox: Eventives can’t combine with perfective in the present.
- Boundedness Requirement: Statives generally can’t combine with perfective.
Background: AEs in the past

In the past, AEs regardless of the lexical aspect of the prejacent:

(1) Sam could \{see/watch/…\} Saturn.

\[ \begin{align*}
\text{Ability (no AE)} \\
\text{Implicative (AE)}
\end{align*} \]

Bhatt 1999: AEs depend on grammatical aspect.

(4) French:

a. Sam **pouvait** \{voir/regarder\} Saturne,
   \( \checkmark \) ...mais elle ne l’a pas fait (\( \checkmark \) but she didn’t)

b. Sam **a pu** \{voir/regarder\} Saturne.
   \# ...mais elle ne l’a pas fait (\#but she didn’t)

Bhatt 1999:

- Basic meaning of *can/able* is implicative
- Lack of AE with imperfective is due to the presence of a Generic Operator (GEN), associated with imperfective morphology cross-linguistically
Background: AEs in the past

- Aspect scope above root modals.
- Aspect quantifies over the vP event (despite appearing on the modal).

**Imperfective**

\[ \forall w' \in \text{GEN}(w_0) \ \forall e \ \exists w'' \in \text{MB}_{\text{CIRC}}(w') \ldots \]

\[ \exists e \in w_0 \ldots \exists w' \in \text{MB}_{\text{CIRC}}(w_0) \ldots \]

In all generic \( w' \) accessible from \( w_0 \), all past events \( e \) of Saturn-watching in \( w' \) are such that in some \( w'' \) accessible from \( w' \), \( e \) are events of Saturn-watching

= No actual event (ability)

**Perfective**

\[ \exists e \in w_0 \ldots \exists w' \in \text{MB}_{\text{CIRC}}(w_0) \ldots \]

= There was a past event \( e \) in \( w_0 \), which in some \( w' \) is a Saturn-watching event

= Actual event (implicative)
Proposal

Similarly, in the present:
- Ability reading due to generic operator (GEN) associated with imperfective
- Implicative reading due to the perfective: the vP-event gets anchored in $w_0$

**Imperfective**
(perception verbs, all eventives)

$\forall w' \exists e \in GEN(w_0) \forall e \in w'\ldots$

see(e)

= No actual event (ability)

**Perfective**
(perception verbs only)

$\exists e \in w_0\ldots$

see(e)

= Actual event (implicative)

► Why, in the present, no AEs for eventives?
The **Present Perfective Paradox**

Perfective is incompatible with *eventives* in the present:

**Present Perfective Paradox**

Eventives in the present perfective should mean that the *event time* \((E)\) is contained within the *speech time* \((S)\), which is taken to be punctual.

(5) a. Perfective: \(E \subseteq R\)

b. Imperfective: \(E \supset R\)

(Malchukov 2009, de Wit 2017; Jespersen 1924, Dowty 1979, Smith 1997)
The *Present Perfective Paradox*

Perfective is incompatible with *eventives* in the present:

**Present Perfective Paradox**
Eventives in the present perfective should mean that the *event time* \( E \) is contained within the *speech time* \( S \), which is taken to be punctual.

\[(5)\]

a. Perfective: \( E \subseteq R \)

\[\text{Event time (E)} \quad \text{Speech time (S)} \quad \times \]

b. Imperfective: \( E \supset R \)

\[\text{Event time (E)} \quad \text{Speech time (S)} \quad \checkmark \]

→ No implicative reading for *eventives*.

(Malchukov 2009, de Wit 2017; Jespersen 1924, Dowty 1979, Smith 1997)
The *Present Perfective Paradox*

English Simple Present:

(6) a. Sam *watches* Saturn {right now/when it’s dark}.

b. Sam *sees* Saturn {right now/when it’s dark}.

→ *Perception verbs* compatible with present perfective

→ Supports accounts where AEs depend on the prejacent’s aspectual properties, and not on the modal itself (e.g. Hacquard 2006, 2009; Kratzer 2011)

▶ Open question: Why aren’t *perception verbs* subject to the *Present Perfective Paradox*?
Debates about aspectual class (Vendler 1957, Dowty 1979, Gisborne 2010)

→ ‘Hybrid’ status: classified as accomplishments, activities, or statives.

**Perception verbs are not statives:**


(6) a. Sam *is nice* {right now/when it’s sunny}.  

- Modal sentences: implicative reading never available with statives.

  b. ?Sam can *be nice* {#right now/when it’s sunny}. (coercion)
## Summary

<table>
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<tr>
<th>Perception verbs</th>
<th>Eventives</th>
<th>Statives</th>
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</thead>
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<tr>
<td>see, hear; imagine</td>
<td>watch, cross</td>
<td>be nice (coercion)</td>
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<tr>
<td>Present ability statements (can)</td>
<td>✓ implicative (AE)</td>
<td>✓ ability</td>
</tr>
<tr>
<td></td>
<td>✓ ability (no AE)</td>
<td></td>
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<tr>
<td>Simple present</td>
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<td>✓ ongoing</td>
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<td></td>
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<td>Compatibility with perfective</td>
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<td>X</td>
</tr>
<tr>
<td>Compatibility with present perfective</td>
<td>✓</td>
<td>X</td>
</tr>
</tbody>
</table>
Summary

Data:
In the present, ability modal statements are ambiguous, but only with perception verbs, and not with eventives or statives.

(7) a. Sam can see Saturn {right now/when it’s dark}. ability/implicative
    b. Sam can watch Saturn {*right now/when it’s dark}. ability/*implicative
    c. Sam can be nice {*right now/when it’s dark}. ability/*implicative

Proposal:
- As in the past, implicative reading arises with perfective aspect.
- Ability reading due to a GEN operator, associated with imperfective. (Bhatt 1999)
- Aspect combines with the vP event, across the modal. (Hacquard 2006)
- Eventives incompatible with perfective in the present (Present Perfective Paradox). (Malchukov 2009, de Wit 2017)
- Perception verbs are special: They are compatible with perfective in the present.
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Selected references

- Dowty, D. R. (1979). Word meaning and Montague Grammar: The semantics of verbs and times in generative semantics and in Montague’s PTQ.
Data

Past ability statements:

(1) Sam was able to watch/see/... Saturn. A/I
    a. Yesterday, Sam was able to watch/see/... Saturn. A
    b. In those days, Sam was able to watch/see/... Saturn. I

(2) French:
    a. Hier, Sam a pu regarder/voir Saturne. pfv A
    b. A l’époque, Sam pouvait regarder/voir Saturne. impf I

Present ability statement:

(3) Sam can see Saturn from her window. A/I
    a. Sam can see Saturn from her window, but she’s not even looking. A
    b. Sam can see Saturn from her window, and she is enjoying it. I

(4) Sam can watch Saturn from her window. A
    a. Sam can watch Saturn from her window, but she’s not even looking. A
    b. Sam can watch Saturn from her window, #and she’s enjoying it. *I