EVIDENTIALS AND EPISTEMIC MODALS IN A CAUSAL EVENT STRUCTURE

1. INTRODUCTION

[1] Definitions of evidentiality (EV, henceforth) and epistemic modality (EM, henceforth) (Chafe 1986)
(a) EV elements: linguistic devices that indicate information source via which the origo acquires target information
(b) EM elements: linguistic devices that mark the speaker’s commitment to vouch the validity of a given proposition marking degrees of the speaker’s epistemic stance such as certainty.

[2] Debate regarding separability of the two functional categories - EV and EM e.g. Boas’ (1911) generalization: EVs fall within the general system of EMs.
(a) Conflationist vs. Non-Conflationist
   a. Those who claim that the two categories are conflated have seen EVs as means for qualifying the validity of a proposition (Chafe and Nichols 1986, Palmer 1986, Willett 1988, inter alia)
   b. Those who claim that they should be regarded as separate argue that EV must be distinguished from EM (Aikhenvald 2004, DeHaan 1999, 2001, Michael 2010).
   $\odot$ It has been generally assumed that if one of the two approaches is taken, it will contradict and undermine the other.

[3] The aims of this paper
(a) Rather than taking either of the positions, to argue that one schematic causal structure can account for the wide range of EV and EM semantics, assuming that specific forms and languages can differ in referring to different part of the schematic structure.

   (b) To revisit schematic structure of causality, EV, and EM via metaphoric force dynamic accounts (Sweetser 1990) and to provide motivated accounts of the interdependence of EVs and EMs as a conceptual ‘package.’
   $\odot$ The debate is actually about which portion of the causal event structure that embeds both of the categories, is profiled in the construal.

2. BACKGROUND.
2.1. CONFLATIONISTS VS. NON-CONFLATIONISTS

2.1.1. Conflationists

[2] Evidence
   $\odot$ “[R]efferences to sources of information have been linked closely to attitudes about the epistemic status of information, because the linguistic markers encoding these two semantic domains are often the same” (Dendale and Tasmowski 2001).
   (a) EVs and EMs in languages are reported to functionally overlap with each other cross-linguistically (Tibetan (Garrett 2001), Cuzco Quechua (Faller 2002), St’à’t’imcets (Matthewson et al. 2006) inter alia).
   (b) Korean firsthand EV -te (Kwon 2009): both EV and EM are semantically encoded and pragmatically indefeasible:
(1)* chelswu-ka kong-ul cha-te-la, kulentey chelswu-lul
Chelswu-Nom ball-Acc kick-te-ending but Chelswu-Acc
see-Conn-Neg-do-Ant-Decl.ending
"*(I saw that) Chelswu kicked the ball, but I didn't see it."

(2)* amato chelswu-ka kong-ul cha-te-la
Probably Chelswu-Nom ball-Acc kick-te-ending
"*(I saw that) Probably, Chelswu kicked a ball."

[3] Challenges
(a) Not able to provide satisfactory explanations of cases where only one of the functions is linguistically encoded and the other is implicated.
(b) To talk about inseparability of the two categories already takes an assumption that there exist two separate categories.

2.1.2. Non-Conflationists

[2] Evidence
- “EV only asserts the presence of evidence, but not evaluates it in any way; EM is evaluative in nature and based on the evaluation assigns a confidence measure to the speaker’s utterance, but it does not necessarily encode the source” (De Haan 2001).
(a) Nanti quotative -kaNt Michael (2010): the EM evidenced by quotatives in Nanti is a defeasible pragmatic implicature, not an encoded meaning, and thus, they can have the opposite effect of increasing responsibility, not diminishing (Michael 2010)

(3) Ari nokaNti.
ari no= kaNt -i
truly 1S= say -REAL.I
‘Indeed I say.’

(b) A diachronic connection between EVs and EMs is not necessary and they often have different historical origins such as deixis, tense, aspect, etc. in languages supports the claim (De Haan 1999)
(c) The co-occurrence of EV and EM shows that they are not members of the same paradigmatic category

[3] Challenges
(a) Although it is true that the increased responsibility reading induced by reportive EV is normally unexpected, it still involves the speaker’s assessment of the situation, since “responsibility” does not belong to EV semantics (contra [2a]).
(b) Regarding the historical evidence (2c), the aforementioned origins such as deixis, tense, aspect actually involve EM sense more or less, since the speaker’s assessment of the given common ground will definitely be involved (contra [2b]).
(c) Some languages allow multiple modals (Speas 2008: 951) or evidentials (Aikhenvald 2004) (contra [2c]).

2.1.3. Implications

[1] It is commonly assumed that there exists a clear-cut boundary between semantics (encodability) and pragmatics (implicature).

$\supset$ When focusing only on defeasibility of a certain grammatical category, it might not be able to grasp ‘function’ of the category, i.e. how we construe it in mind, appropriately.

- Quechua EV/EM -mi (Kwon 2011):
  (4)a. Juan shamu-rka-mi
      Juan come-Perf-mi
      ‘Juan came’ (Juan came, I saw; direct EV) / (I’m sure that Juan came, I heard from him; EM)
  b. nyuka mama-mi wacha-ri-rka Seoul-pi.
      my mother-mi born-Ref-Perf Seoul-Loc
      ‘My mother was born in Seoul.’

- Inconsistency?
  (5)? Ines-ka kayna paypa nyanya-la-mi tupa-ri-rka
      Ines-Top yesterday 3sg.gen sister-Acc=mi meet-Ref-Perf
      nyuka na riku-rika-ni-chu
      1sg Neg see-Perf-1sg-NPI
      ‘Ines visited her sister yesterday. I didn’t see it.’
  (6) Juan=mi kalpa-rka nyuka na riku-rika-ni-chu
      Juan=mi run-Perf I Neg see-Perf-1sg-NPI
      ‘Juan ran. I didn’t see it.’

$\supset$ The boundary between semantic encodability and pragmatic implicature collapses: -Mi should be defined as the best possible evidential marker (Faller 2003), since the semantic encodability test fails to identify its function, which assumes that there is a strict boundary between semantics and pragmatics.

[2] We should look at how the utterance is construed, rather than what the utterance encodes and/or implicates, considering how the experiential origo experiences, evaluates, and reasons within a conceptually concatenative causal event structure.

[3] EVs and EMs belong to the same causal event structure: an event in question takes place, the speaker perceives the event, the speaker recounts the event, and the speaker’s inference accelerates her reasoning process regarding the validity of the conveyed information, etc.

2.2. DEONTIC MODALS VS. EPISTEMIC MODALS

[1] Sweetser’s (1990) force dynamic approach to EMs is based on causal event structure (CES, henceforth), which embeds EV and EM serially.
Figure 1. FD-Schema of *May*

(7a) *John may go.*

“John is not barred by (my or some other) authority from going.”

(7b) *John may be there.*

“I am not barred by my premises from the conclusion that he is there.”

Figure 1. FD-Schema of *May*

(8) (looks at nametag) “You must be Seth Sweetser’s sister” (Sweetser 1990: 57)

The force vector in Sweetser’s metaphoric force dynamic schema needs analyzing in more depth by breaking it down into smaller frame elements such as FORCE ORIGIN or FORCE EXERTER, an object that the force is exerted on (CAUSEE), and FORCE.

3. **Force Revisited: Interdependence between EVS and EMS**


[2] Causal event structure (CES, henceforth) shared by deontic and epistemic modalities

(9a) *You must come home by ten*

(9b) *You must have been home.*

EM requires that there be evidence, on which in most cases, the speaker’s reasoning is based just as every deontic modality requires that there be cause, on which in most cases, the speaker’s authority is based.

[3] Frame elements such as a CAUSE, a CAUSEE or a CAUSED EVENT, and FORCE (some cases need CAUSE’S EFFECT or CAUSEE’S INTENTION in addition) are needed.

![Figure 2. Schematic Structure of Causality](image)

Table 1. Frame Elements of Must Frame and their Correspondences

<table>
<thead>
<tr>
<th>MUST</th>
<th>(9a)</th>
<th>(9b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject that “force” is exerted on</td>
<td>You</td>
<td>The origo’s reasoning</td>
</tr>
<tr>
<td>Force exerter</td>
<td>whatever cause in the given context</td>
<td>the speaker’s perception of evidence</td>
</tr>
<tr>
<td>Force</td>
<td>causee’s will, the speaker’s authority</td>
<td>the speaker’s inference/belief</td>
</tr>
</tbody>
</table>
[5] Implications
(a) EVs are crucial part for our understanding of EMs in CES
(b) EM semantics is a natural consequence which is given rise to in the causal event chain; EVs and EMs are contiguously located in the CES (by frame metonymy)
(c) With CES, we can account for a variety of semantic ranges of EV and EM cross-linguistically, looking into which portion in a broader conceptual picture is profiled.

4. THE THIRD VIEW: A BROADER PICTURE
[1] Main claim: In order to characterize EV and EM, which are dependent of each other, we need to consider them in the context of CES that embeds EVs and EMs.

[2] Evidence
  • “If one does not have any kind of evidence pertaining to a state of affairs, one cannot evaluate its probability” (Nuyts 2001).
  • “Modal judgments are generally made based on some type of evidence, and one can often infer the speaker’s modal judgment from the type of information source indicated” (Rooryck 2001).
(a) The variety of encoding patterns of EVs and/or EMs in languages is natural, assuming that languages have different ways of semanticizing/pragmaticizing implicatures.

Evidence Perception (+ Cognitive Processes of inference) = EV
(Cognitive Processes of inference +) Origo’s reasoning = EM

(b) Modal judgments are generally made based on some type of evidence, and one can often infer the speaker’s modal judgment from the type of information source indicated (Rooryck 2001, Izvorski 1998, Speas 2004, Matthewson et al. 2006, cited in Speas 2008: 951).
[3] Defining EVs and EMs depends on how to conceptually parse and profile the causal chain and how to package it.

![Diagram of EV and EM in Korean](image1)

![Diagram of EV and EM in Iquito](image2)

![Diagram of EV and EM in Imbabura Quechua](image3)

5. DISCUSSIONS

5.1. Subjectivity

[1] What controls the strength of EM is often related to usage of first vs. non-first pronominal references ((non-)coincidence between the origo that perceives and the grammatical subject that is perceived).

- e.g. Nanti reportive example (Michael 2010): whether first person subject or non-first person subject is in use determines degree of EM.
- The degree of epistemic modality (the strength of the force) varies depending on which grammatical subject (i.e., first person or non-first person subject) is coupled with the origo (Nuyts 2001).

[2] Subjectivity

- Implicit reference to the speaker, the addressee, and Ground (the given context of the speech) (Langacker 1987).
  - (a) EV constructions are optimal examples of maximum subjectivity, since the experiential origo is not usually explicitly expressed on the surface.
  - (b) The (non-) first person pronominal reference will crucially affect construal of the constructions, since it determines degree of the subjectivity and thus, quality of EM.
Korean firsthand EV marker –te with action predicates (Kwon 2009):

(8)a.?

\[ \text{nay-ka kong-ul cha-te-la} \]
I-Nom ball-Acc kick-te-ending
Lit. I kicked the ball (I saw that I kicked the ball).

b. \[ \text{Chelswu-ka kong-ul cha-te-la} \]
I-Nom ball-Acc kick-te-ending
Lit. Chelswu kicked the ball (I saw that Chelswu kicked the ball).

\( \Rightarrow \) Subjectivity crucially affects degree of EM.

6. CONCLUDING REMARKS

[1] This paper explored the ongoing debate between so-called ‘conflationists’ and ‘non-conflationists’ with regard to whether EVs and EMs are to be conflated or not, arguing that one schematic CES can account for the wide range of EV and EM semantics, assuming that specific forms and languages can differ in referring to different part of this schematic structure.

[2] In order to better grasp the causal event structure that necessarily embeds both EVs and EMs, this study revisited Sweetser’s (1990) schematic structure of EM and reanalyzed the CES that embeds both EVs and EMs in a more fine-grained sense, providing motivated accounts of the interdependence of EVs and EMs as a conceptual ‘package.’

REFERENCES

Faller, Martina T. 2003. The Evidential and Validational Licensing Conditions For the Cusco


