(Non)factivity and causal inference in evaluative adjective constructions

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Evaluative adjective constructions: two interpretations

x be ADJ to P

x: agent; ADJ: evaluative adjective; P: 1-place predicate

(1) Ria was stupid to sing at the party
(2) Ria was not stupid to sing at the party

FACTIVE interpretation
canonical
(Wilkinson 1970, Barker 2002, Oshima 2009, a.o.)

Entailed: **Generalization** (relating ADJ, $P(x)$)
(1) → Singing was stupid (of Ria)
(2) → Singing was not stupid (of Ria)

Not at-issue: **Complement** ($P(x)$)
(1),(2) → Ria sang

IMPLICATIVE interpretation
less prominent
(Karttunen et al 2014, Tonhauser et al 2020)

Entailed: **Complement** ($P(x)$)
(1) → Ria sang
(2) → Ria did not sing

Not at-issue: **Generalization** (ADJ, $P(x)$)
(1),(2) → Singing would have been stupid

Observation 1: Clear interpretive contrast only under negation
(1) ∼ Ria sang and it was stupid (FACTIVE, IMPLICATIVE)
(2) ∼ Ria sang and it was not stupid (FACTIVE)
∼ Ria did not sing and it would have been stupid (IMPLICATIVE)

Observation 2: Context-sensitive interpretation (Karttunen et al, Tonhauser et al)
- FACTIVE likely when generalization is surprising *(no reason to think singing is stupid)*
- IMPLICATIVE likely when generalization is unsurprising *(Ria is a known poor singer)*

Tonhauser et al (2020): EACs are lexically associated with both generalization and complement, projectivity is determined by the context *(Question Under Discussion)*

Question

What is the content of EAC **generalizations**?

- **Absolute** uses of EAs describe individuals
  (3) Ria is stupid / clever / kind / rude
  SPKR assessesment of disposition
- EACs **do not license** absolute EA claims
  (1),(2) ↛ Ria was (not) stupid
- What links **relative**, **absolute** EA claims?

Proposal

EACs are linked to a **causal generalization**:

(G) $\Box_{\text{caus}}[\boxed{\text{INST}(\text{ADJ}(x))} \leftrightarrow P(x)]$

↑ **manifestation** of ADJ by x

Context determines if (G) is *at-issue*
(cf. Tonhauser et al)

FACTIVE
$P(x)$ given, EAC asserts (G)
(1) → (G), $P(x)$+(1) → INST(ADJ(x))
(2) → ¬(G), $P(x)$+(2) ↛ INST(ADJ(x))

IMPLICATIVE
(G) given, EAC asserts INST(ADJ(x))
(1) → INST(ADJ(x)), (G)+(1) → $P(x)$
(2) → ¬INST(ADJ(x)), (G)+(2) → ¬$P(x)$

The implicative reading

Implicative EACs mimic **implicative verbs**:
(e.g. *dare*; Nadathur 2023b)

action invoked by IMPL

IMPL(x, P) *presupposes* $\Box_{\text{caus}}[A(x) \leftrightarrow P(x)]$
asserts $A(x)$
$P(x)$ *entailed*

(4) Ria dared to sing
Ria sang because she was daring
(5) Ria did not dare to sing
Ria did not sing because she wasn't daring

Implicative EACs are similarly *explanatory*:
(1) ∼ Being stupid caused Ria to sing
(2) ∼ Not being stupid caused Ria not to sing

Hypothesis: EACs involve **causal** *to*

$[\![\text{to}]\!] := \lambda P \lambda Q_{\text{eventive}} \lambda x.\Box_{\text{CAUS}}[Q(x) \leftrightarrow P(x)]$

(cf. von Stechow et al 2004 on causal German *um*)

Relative and absolute uses of evaluative adjectives

Claim: EA **relative/absolute** distinction maps to an independently-observed alternation between **eventive** and **stative** uses of **dispositional** (action-oriented) ADJ
(Fernald 1999, Fábregas et al 2013, Martin 2015, Homer 2021, Nadathur 2023a)

Episodic contexts: INST(ADJ(x))
EAs describe **actions**

Elsewhere: ADJ(x)
EAs describe **dispositions**

English: [PROG] Ria was being stupid / clever / kind / rude
[NONPROG] Ria was stupid (in her youth) / clever / kind / rude

French: [PFV] *Ria a été stupide*
Ria was-PFV stupid
Ria behaved stupidly

[IMPF] *Ria était stupide*
Ria was-IMPF stupid
Ria was habitually stupid

- Eventive uses of EAs describe actions that can provide **evidence** for the corresponding disposition
- **But:** single instances are insufficient to license the stative/absolute use of the EA
- **EACs select the eventive reading:**
  The causal generalization (G) creates an episodic context; relative uses of EAs describe behavior, do not entail absolute claims

Towards an account of the factive reading

Factive EACs arise where $P(x)$ is given; they do not attribute ADJ to $P(x)$, but (potentially) license a **relative** attribution for x (contra Barker 2002)

- (1) asserts (G), licensing inference to INST(ADJ(x)) (Oshima 2009, Martin 2015)
- (2) denies (G), blocking inference to INST(ADJ(x))

$P(x)$ & $\Box_{\text{caus}}[\text{INST}(\text{ADJ}(x)) \leftrightarrow P(x)]$ → INST(ADJ(x))
$P(x)$ & $\neg\Box_{\text{caus}}[\text{INST}(\text{ADJ}(x)) \leftrightarrow P(x)]$ ↛ INST(ADJ(x))

Problem: Why is the factive reading more prevalent/prominent than the implicative reading?
Preliminary answer: EA behaviour is not directly observable, but must be inferred from its observable results; in asserting/denying (G), SPKR uses consequences of internal choice to justify relative EA claim

Factive behavior correlates with **evaluativity**: EAs describe **internal** (mental) **dispositions**

- Non-evaluative (physical) disposition ADJ do not privilege factive use
- Factive EACs presuppose a **choice** between ranked outcomes (cf. Condoravdi 2008)

(6) Ria was (not) {loud / quick / . . . } to answer the question
(7) #Whether Ria sings or not, she'll be stupid to do it
(8) #Ria was stupid to cough involuntarily

Current proposal: relative use of EA describes a mental action, identified with the choice to realize $P(x)$ over alternative(s)
(1) ∼ SPKR assesses $P(x)$ to be worse than $\neg P(x)$, so choosing $P(x)$ is evidence of relative stupidity
(2) ∼ SPKR does not assess $P(x)$ as worse than $\neg P(x)$, so $P(x)$ does not indicate relative stupidity