

Subjective content at sole issue

NON-AT-ISSUE MEANING AND INFORMATION STRUCTURE

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1 Presupposition and information structure

How can presupposition and information structure be bridged?

→ Beaver, Roberts, Simons and Tonhauser (2017): by **(non-)at-issueness**, i.e., (ir)relevance to the Question under Discussion (the **QUD**)

Presuppositionality is . . . a property of propositions. Information structure concerns subpropositional units: It distinguishes parts of propositions, differentiating, in particular, parts that are new or unpredictable from parts that are old or unsurprising. (p. 266)

According to Beaver, Roberts, Simons and Tonhauser (2017), QUDs provide a unified perspective on information structure and presupposition (p. 280):

– Definition of at-issueness

A proposition expressed by a constituent is **at-issue** if it contributes to the ordinary semantics of the clause it is in, and entails that some answer to the QUD is false; otherwise the proposition is **not at-issue**.

– Principle of projection

A content expressed by a constituent embedded under an entailment-canceling operator **projects** iff it is **not at-issue**.

→ Plan: use subjective content, more precisely, subjective attitudes and their sensitivity to subjective content, as a prism for probing this, and conversely, see if this theory can shed new light on the proper treatment of subjectivity.

2 Kennedy and Willer 2016: Counterstances and issues

Background: Subjective attitude verbs (Sæbø 2009) – like English *find*, *feel*, French *trouver*, Danish *synes*, Swedish *tycka*, or Mandarin *jué de* (觉得) – are only felicitous if their argument is **subjective**.

- (1) A third of married Brits find sex a chore.
- (2) Vi synes det snart er på tide at blive gift.
we SYNES it soon is on time to become wed
'We feel it is becoming time to get married.'
- (3) Mamma skulle tycka jag var för ung för att gifta mig.
mommy should TYCKA I was too young for to marry me
'Mom would think me too young to marry.'

Here the arguments are arguably subjective. But here they are objective:

- (4) #There is a growing movement of Americans who find the Earth flat.
- (5) #Mange synes, at cyklerne er forsikret i indboforsikringen.
many SYNES that bicycles-DEF are insured in homeinsurance-DEF
'Many feel that their bicycles are insured on their home insurance.'

→ The most recently published proposal for accounting for this pattern is by Kennedy and Willer (2016). To cut a longer story shorter, they contend that verbs like *find* only differ from verbs like *believe* in presupposing that their argument propositions are *radically counterstance contingent*. This notion is defined in terms of information states s (sets of worlds, e.g., the context set), a function κ_c mapping info states to sets of info states, and a function κ_c^* mapping sets of info states to sets of sets of info states, partitions of them:

- $\kappa_c : \mathcal{P}(W) \mapsto_p \mathcal{P}(\mathcal{P}(W))$ maps s to the set of those s' that are like s except for contextually salient decisions about how to resolve indeterminacy of meaning: every $s' \in \kappa_c(s)$ is a *counterstance* to s in c .
- $\kappa_c^* : \mathcal{P}(\mathcal{P}(W)) \mapsto_p \mathcal{P}(\mathcal{P}(\mathcal{P}(W)))$ partitions κ_c into counterstance sets such that in every cell π every parameter that supports coordination by stipulation is held constant.

– Definition of radical counterstance contingency

A proposition p is radically counterstance contingent in c iff $\exists s : s \subseteq p \wedge \forall \pi \in \kappa_c^*(\kappa_c(s)) \exists s' \in \pi : s' \not\subseteq p$.

(A notion of (moderate) counterstance contingency, which only involves κ_c and existential quantification, allows to distinguish between verbs like *find* and verbs like *consider*, which only require counterstance contingency.)

– **Definition of *find* etc.** (preliminary)

- $\llbracket \alpha \text{ finds } \phi \rrbracket^{c,w}$ is defined iff $\llbracket \phi \rrbracket^c$ is radically counterstance contingent
- and if defined, $\llbracket \alpha \text{ finds } \phi \rrbracket^{c,w} = 1$ iff $\text{Dox}(w(\alpha), w) \subseteq \llbracket \phi \rrbracket^c$

→ Kennedy and Willer refine this analysis to account for some observations by Sæbø (2009) concerning complex arguments:

- (6) a. I find him handsome and pleasant to be with.
- b. #I find him handsome and under 45.
- (7) a. Some find all who are not religious immoral.
- b. #Some find all who are moral religious.

Since a conjunction is radically counterstance contingent just in case at least one conjunct is, (6a) and (6b) should both be fine; since, by contraposition, (7a) and (7b) are equivalent, both should be fine.

The refinement consists in relativizing radical counterstance contingency to a set of **issues** raised and resolved by the prejacent.

– **Definition of *find* etc.** (final)

- $\llbracket \alpha \text{ finds } \phi \rrbracket^{c,w}$ is defined iff $\mathcal{I}_c(\phi)$ is radically counterstance contingent
- and if defined, $\llbracket \alpha \text{ finds } \phi \rrbracket^{c,w} = 1$ iff $\text{Dox}(w(\alpha), w) \subseteq \llbracket \phi \rrbracket^c$

A set of issues is radically counterstance contingent just in case each of its members is, and an issue is radically counterstance contingent just in case at least one of its resolutions (= Groenendijk-Stokhof complete answers) is.

– **Associating issue sets with sentences** (partial)

- (i) $\mathcal{I}_c(P(\alpha_1 \dots \alpha_n)) = \{\llbracket P(\alpha_1 \dots \alpha_n)? \rrbracket^c\}$
- (ii) $\mathcal{I}_c(\phi \vee \psi) = \mathcal{I}_c(\phi \wedge \psi) = \mathcal{I}_c(\phi) \cup \mathcal{I}_c(\psi)$
- (iii) $\mathcal{I}_c(Q(\phi, \psi)) = \mathcal{I}_c(\psi)$

As the prejacent in (6b) raises the issue whether he is handsome and the issue whether he is under 45, radical counterstance contingency does not obtain; the same holds for the prejacent in (7b) raising the issue who is religious.

So far, so good – though it is unclear how to relate this notion of issue to the mainstream research on at-issue content. But crucially, Kennedy and Willer (2016) stop short of the third of three observations made by Sæbø (2009).

3 At-issue subjective, non-at-issue objective content

In fact, the phenomenon that called for refinement is more general in nature. A sentence can have objective parts alongside subjective parts without overt coordination, and those do not always form a constituent. As shown by (8a), such a sentence can be bad for a subjective attitude verb; as shown by (8b), however, a minimally different sentence can be good for the same verb.

- (8) a. #Jag tycker jag känner en duktig läkare.
I TYCKER I know an able doctor
- b. Jag tycker jag har en duktig läkare.
I TYCKER I have an able doctor
'I feel I have a good doctor.'

This minimal difference, Sæbø (2009) suggested, lies in information structure or in the partition of the clause in what is asserted and what is presupposed, – today we might say that in (8a) it is not possible but in (8b) it is possible to read everything but the subjective content *duktig* as non-at-issue content.

We might generalize to say that a subjective attitude verb like *tycka* requires all the objective material in its prejacent to not be at-issue and so to project. (Kennedy and Willer (2016) would seem to be missing this generalization – it may be very well to relativize (radical) counterstance contingency to every issue raised by the prejacent, but rules associating issue sets with sentences seem too coarse to capture distinctions between singleton and non-singleton issue sets raised by atomic sentences.) In what follows, I will first defend this hypothesis, then consider how it can best be accounted for theoretically.

Note that Bouchard (2012) makes the similar claim that the non-subjective material below *find* must be presupposed, citing (9a,b) from Ducrot (1975).

- (9) a. Je trouve qu'il a eu tort de faire cela.
'I feel he was wrong to do this.'
- b. #Je trouve qu'il a eu le tort de faire cela.

In (2012a) he calls the phenomenon “the partial factivity of opinion verbs”.

3.1 Covert conjunction

On the face of it, the embedded sentence in (10a) has three truth conditions: (i) there is a book, (ii) Sara has written it, and (iii) it is exciting. However, on the only reading where (10a) is felicitous, the only truth condition in the narrow sense is (iii); rather than that, (i) and (ii) are definedness conditions.

- (10) a. Vuokko Hirvonen synes Sara har skrevet en spennende bok.
Vuokko Hirvonen SYNES Sara has written an exciting book
'Vuokko Hirvonen finds the book Sara has written exciting.'¹
b. (Vuokko Hirvonen believes) Sara has written a book.²

Both (10a) and its negation entail (10b), and it is only felicitous in a context where a discourse referent for a book that Máret Anne Sara has written has been saliently introduced, so that the existence implication of the indefinite is here in fact not at-issue but projects, as if it were a definite.

Note that a Simons-Tonhauser-Beaver-Roberts picture of projective content is essential for a precise account of what is happening here: the definiteness of the description of the book that Sara has written is not hard-wired but made necessary by something in the intrasentential context (the verb *synes*) and possible by something in the intersentential context (a QUD like 'what do professors of Sámi literature think Máret Anne Sara's book is like').

This definiteness without definiteness marking can be enabled contextually, as in (10a) or (11), lexically, as in (12), or by encyclopaedic knowledge, as in (13). The sentence immediately preceding (11) is 'I condemn infidelity.'

- (11) Jeg synes personen har gjort noe som er tarvelig.
I SYNES person-DEF has done something that is base
'I find what the person did base.'

This provides the (non-constituent) content 'the person has done something' with antecedents, not just for the definite 'the person' but also and crucially for the indefinite 'something', connecting to an act of infidelity.³

¹ www.nrk.no/sapmi/tviler-pa-at-samisk-kandidat-vinner-litteraturpris-1.12013779

² As elsewhere, though the presupposition will mostly project to the global discourse level, in the general case it is prudent to relativize it to the attitude holder's beliefs.

³ The example is complicated by a generic subordination interpretation, but that does not matter for the issue under consideration.

The decisive fact about (12) is that the noun in the complement of 'have' is a functional noun – everyone has one and only one life.

- (12) Berat synes, han har et godt liv i Danmark.
Berat SYNES he has a good life in Denmark
'Berat finds his life in Denmark good.'

– World knowledge can suffice to license a one-and-only-one interpretation, thus (13) is fine as long as it is shared knowledge that Pelle had one lamb:⁴

- (13) Pelle tyckte han hade ett gulligt lamm.
Pelle TYCKTE he had a cute lamb
'Pelle found his lamb cute.'

But in (8a), nothing in the words or in the world licenses a one-and-only-one interpretation, and it is difficult to assemble sufficient contextual support for it. So, the objective content is at-issue, and the attitude verb is anomalous.

Note that the subjective content must itself be at-issue. Negative evidence in this regard comes from non-restrictive modification, as in (14), where the subjective modifier 'useless' is interpreted non-restrictively:

- (14) #Skrue synes de ønsker seg et idiotisk, unyttig leketog.
Scrooge SYNES they wish REFL a silly, useless toytrain

3.2 Non-at-issue objective content and topicality

A case has been made that for a subjective attitude sentence to be felicitous, there must be subjective content at-issue in the complement clause **and** any objective content there must not be at-issue.

Does this mean that objective content must be backgrounded, not in focus? No, some can be a *contrastive topic*. Here are some examples.

- (15) Frun tycker att jag är en medelmåttig bridgepartner men
missus-DEF TYCKER that I am a mediocre bridgepartner but
en underbar älskare.
a wondrous lover
'My wife finds me a mediocre bridge partner but a marvellous lover.'

⁴ As indeed it is in the world of Elsa Beskow's children's classic *Pelles nya kläder*.

- (16) Vi syntes, de serverede god pasta men skuffende pizza.
 we SYNTES they served good pasta but disappointing pizza
 ‘We found their pasta good but their pizza disappointing.’

‘Bridge partner’, ‘lover’, ‘pasta’ and ‘pizza’ form pairs of contrastive topics, carrying accents (thus the second tone on *bridgepartner* is not neutralized). Yet, the proposition that I am a bridgepartner as well as a lover of my wife’s and the proposition that they served pasta and pizza **project**.

What does not seem to be possible is for covertly conjoined objective content to be *comment focus*, unless the focus is a so-called corrective focus (see, e.g., Büring 2015), in which case the content still seems to project.

- (17) Så du synes jeg er en dårlig skytter, da?
 So you SYNES I am a bad shooter then
 Nei, jeg synes du er en dårlig TAPer.
 no I SYNES you are a bad loser

4 Modes of modeling (non-)at-issue objective content

Now I turn to the issue of how the generalization that “a subjective attitude verb... requires all the objective material in its prejacent to not be at-issue” can be accounted for theoretically.

After discussing the theory proposed by Kennedy and Willer (2016), I go on to consider recent work by Coppock (2016).

4.1 Issues at issue

For the theory proposed by Kennedy and Willer (2016) to draw the right line between (8a) and (8b), repeated here, it must be modified.

- (8) a. #Jag tycker jag känner en duktig läkare.
 I TYCKER I know an able doctor
 b. Jag tycker jag har en duktig läkare.
 I TYCKER I have an able doctor
 ‘I feel I have a good doctor.’

There are two ways. One is to add to the definition of the set of issues raised by a sentence a clause saying that the set of issues raised by ϕ is the union over the set of issues raised by any ψ weaker than ϕ provided it is at-issue:

– Associating issue sets with sentences (partial revised)

- (i) $\mathcal{I}_c(P(\alpha_1 \dots \alpha_n)) = \{\llbracket P(\alpha_1 \dots \alpha_n)? \rrbracket^c\}$
- (ii) $\mathcal{I}_c(\phi \vee \psi) = \mathcal{I}_c(\phi) \cup \mathcal{I}_c(\psi) \neq \mathcal{I}_c(\phi \wedge \psi)$ *superfluous now*
- (iii) $\mathcal{I}_c(Q(\phi, \psi)) = \mathcal{I}_c(\psi)$
- (iv) $\mathcal{I}_c(\phi) \supseteq \bigcup \mathcal{I}_c(\psi)$
 for any ψ such that $\{w : \llbracket \phi \rrbracket^{c,w} = 1\} \subseteq \{w : \llbracket \psi \rrbracket^{c,w} = 1\}$
 and $\llbracket \phi \rrbracket^c$ is at-issue (answers the QUD, does not project) in c

Then the prejacent of (8a) raises, i.a., the issue whether I know a good doctor and the issue whether I know a doctor, whereas (8b) possibly only raises the issue whether I have a good doctor. Note that (iv) only constrains; in fact, it predicts that (8a) is bad but not that (8b) is good.

The other way is to forget the issues and modify the definedness condition for *find* etc. to say that the prejacent and any at-issue p weaker than it must be radically counterstance contingent:

– Definition of *find* etc. (modified)

$\llbracket \alpha \text{ finds } \phi \rrbracket^{c,w}$ is defined iff $\llbracket \phi \rrbracket^c$ and every p at-issue in c such that $\{w : \llbracket \phi \rrbracket^{c,w} = 1\} \subseteq \{w : p^w = 1\}$ are radically counterstance contingent, and if defined, $\llbracket \alpha \text{ finds } \phi \rrbracket^{c,w} = 1$ iff $\text{Dox}(w(\alpha), w) \subseteq \llbracket \phi \rrbracket^c$

This is an option that predicts both that (8a) is bad and that (8b) is good. However, it runs into a problem with cases like (ii) above, disjunction.

Below, I compare this model, unfavorably, with a model of a different kind.

4.1 Strong subjectivity

Coppock (2016) ascribes to subjective attitude verbs a presupposition that the prejacent express a ‘discretionary proposition’. Discretionary, in turn, is defined in terms of ‘outlooks’, which are refinements of worlds.

For perspecuity, I will represent the proposed theory in a **relativist** format, where semantic evaluation depends on a judge index beside a world index.

– Discretionary proposition (à la Coppock, notation modified)

p is *discretionary* iff for some world w and two judges j and k ,
 $p^{\langle w,j \rangle} = 1$ and $p^{\langle w,k \rangle} = 0$

- **Definition of *tycka* etc.** (à la Coppock, notation modified)

$\llbracket \alpha \text{ tycker } \phi \rrbracket^{c, \langle w, j \rangle}$ is defined only if $\llbracket \phi \rrbracket^c$ is discretionary

As it stands, this is too weak to predict that (6b), (7b) or (8a) is infelicitous due to presupposition failure. But two moves may get us there.

First, we may substitute a strong notion of discretionary for the weak notion defined above:

- **Discretionary proposition** (strong notion)

p is *discretionary* iff for all worlds w there are two judges j, k such that $p^{\langle w, j \rangle} = 1$ and $p^{\langle w, k \rangle} = 0$

Now second, because this is too strong again, predicting that even cases like (18) are infelicitous, where ϕ contains a presupposition,

- (18) Horvath finds it unfair that elderly voters decided about the future of young voters.

the definition must be modified along these lines:

- **Discretionary proposition** (final notion)

p is *discretionary* iff for all worlds w such that for some judge y , $p^{\langle w, y \rangle}$ is defined, there are two judges j, k such that $p^{\langle w, j \rangle} = 1$ and $p^{\langle w, k \rangle} = 0$

The one issue is now: are we right to say that in (10a), the embedded sentence expresses a discretionary proposition in this sense, more specifically, that it is only defined for world-judge pairs at which Sara has written a book?

- (10) a. Vuokko Hirvonen synes Sara har skrevet en spennende bok.
Vuokko Hirvonen SYNES Sara has written an exciting book
'Vuokko Hirvonen finds the book Sara has written exciting.'

The answer depends on our notion of the proposition – the partial function to truth values – expressed in a context: if we follow Beaver et al. (2017) to say that what is not at-issue but projects is sensitive to the discourse context and its Question under Discussion, and we furthermore say that what is not at-issue but projects forms definedness conditions for the proposition, – *yes*. This may seem radically new, but it is in fact not very far removed from the old picture that what proposition is expressed is determined by the context.

Indeed, one lesson from the foregoing is that presuppositions are not always hard-wired but can vary with information structure and discourse structure. Insofar, it is the same lesson as was taught by Beaver (2010). But while his focus was on presuppositions that are marked as such but do not take effect, here the focus is on presuppositions that are not marked but do take effect.

Then nothing more will need to be defined for the facts to come out right, – and arguably a simpler story will be told than would seem to need telling on a theory like that proposed by Kennedy and Willer (2016).

For them, to be sure, a theory like that proposed by Coppock (2016) is less attractive because it offers no clear way to make a distinction between two subjective attitude verbs like *find* and *consider*, which differ in distribution. Indeed, English also has *feel* and one sense of *think*, arguably a homonym; and in other languages too there are two or more verbs with slightly different use conditions. But that is another story, better told on another occasion.

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