

# Subjective and objective epistemics and their effect on trustworthiness

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Lyons (1977) introduced the distinction between subjective and objective epistemic modality. This distinction affects modal verbs like *must* and parenthetical attitude expressions like *I think* but is most clearly expressed with modal adverbs vs. adjectives (cf. Nuysts 1993, et al.):

(1) a. Tea is certainly / presumably / probably / possibly healthier than coffee. (subjective)  
b. It is certain / probable / possible that tea is healthier than coffee. (objective)

There are several tests that tease subjective and objective epistemic modals apart (cf. Ernst 2009, et al.) The former do not occur in the scope of negation and there are no negative subjective epistemics, they cannot be focused, they do not occur in the protasis of conditionals and they cannot be modified e.g. by *absolutely*. Also, they cannot be questioned, and they cannot answer questions about the likelihood of an event (Herbsttritt 2020). More specifically, it appears that modal adverbs only have a strong tendency towards a subjective epistemic interpretation, and that there are adverbs like *necessarily* that are lexically specified as objective (cf. Papafragou 2006). The general conclusion is that objective epistemics belong to the proposition that is communicated whereas subjective epistemics specify the way how this proposition is communicated (cf. Yatsushiro et al. 2021).

We are concerned here with the purpose that subjective epistemics have in communication. It has been claimed that with them, a speaker can mitigate the force of an assertion (Sbisà 2001, Wolf 2015). This is why even a strong subjective epistemic like *certainly* or *must* can create a weaker assertion. We will report on two experimental results that support this hypothesis. The first is based on Lassiter (2016) and investigates the willingness of subjects to agree with statements about the outcome of a lottery (700 participants in an online experiment). Sentences with the objective epistemic adjective *certain* were judged more restrictively than sentences with the subjective *certainly* (cf. Yatsushiro et al. 2022). The second experiment, for German, employed a novel method and investigated the effect on the trustworthiness of speakers when using bare assertions and assertions with the adverb *sicher* 'certainly' and the adjective *sicher* 'certain' (450 participants in an online experiment). In case the asserted proposition turned out to be false, the reputation of trustworthiness was significantly less affected when the proposition was modified by the adverb *sicher*, and significantly more affected when it was presented with the adjectival construction *es ist sicher* 'it is certain', compared to the unmodified proposition (Krifka 2023a).

We will present a syntactic and semantic framework in which this pragmatic effect of epistemic modals can be modelled as affecting the assertive commitment of the speaker, following Krifka (2023b).

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