**How many people agree? Evidentiality effects on opinions' perceived generalizability**

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When someone expresses an opinion, what influences whether you think other people would agree? We investigated how opinions' perceived generalizability is influenced by a related phenomenon: evidentiality markers. These markers indicate information source, e.g. whether a speaker has direct perceptual evidence for something, inferred it based on perceptual evidence, or heard about it from someone. These are **morphologically marked** in Korean (extra page). Information sources differ in perceived reliability: *direct evidence (DE)*>*inferred (IE)*>*hearsay (HE)* (e.g.Willett'88). Evidentials can modify objective and subjective statements.

**Reliability of subjective claims.** What does it mean for an opinion to be more or less reliable? We suggest that reliability relates to **generalizability**: If many people share an opinion, it is perceived as more reliable than if only a few people do (cf. social consensus, attitude certainty research, e.g. Tormala & Rucker'07). We suggest *there are potentially 2 ways for an opinion to be reliable*: (i) to be based on directly-perceived information (**DE**-marking) and (ii) to be held by multiple people (**HE**-marking). We tested this with subjective adjectives:

Prior work has identified 2 types of subjective adjectives with different subjectivity sources: *predicates of personal taste* (**PPTs**, e.g. Lasersohn'05) and *multidimensional adjectives* (**MDs**, e.g. Sassoon'13). With PPTs (e.g. *tasty, fun*), subjectivity is tied to direct personal experience, but with MDs (e.g. *healthy, intelligent),* subjectivity stems from variation in the importance attributed to different dimensions (e.g. what counts as intelligent? McNally/Stojanovic'17). Relatedly, MDs seem to be more subject to social standards/norms than PPTs, due to PPTs being strongly anchored in personal experience (e.g. Vardomskaya'14). We test 3 hypotheses about how subjective adjectives interact with evidentials to influence opinion generalizability:

**H1: Opinions based on direct 1st-person experience generalize more**. If the extent to which opinions are perceived to generalize to others depends on the *reliability of the information that the opinion is based on*, then--given that *direct 1st-person experience is privileged* (e.g. Fazio/Zanna'78)--**DE** should make opinions more generalizable than **IE**/**HE**: We are more likely to assume others will share a DE-marked opinion (Table 1(b)), than HE/IE.

**H2: Opinions held by others generalize more**. Building on the observation that **HEs** presuppose *the existence of one or more opinion-holders separate from the speaker*, **HE** marking (Table 1(d)) is predicted to make opinions more generalizable than **DE** or **IE** marking.

**H3: Both reliability and other opinion-holders matter**. *Both* the reliability of information (**DE**) *and* the existence of other opinion-holders (**HE**) increase generalizability. Opinions marked with **IE** (Table 1(c)) are neither reliable nor associated with others: less generalizable.

We tested these predictions in two Korean studies manipulating evidential marking (no evidential/baseline, direct evidential/DE, inferential evid/IE, hearsay evid/HE), in sentences like Table 1. **Exp. 1** tested PPTs (e.g. *tasty, fun, terrifying*, 49 participants); **Exp. 2** tested MDs (e.g. *complex*, *sophisticated, useful,* 46 participants). People read sentences (see Table 1, said by an alien on an alien planet) and answered questions like (1) about *perceived generalizability*. An alien context and nonce words prevent bias from people's own opinions. Both studies had 24 targets (24 different adj, nonce Ns) and 36 fillers. Raw and z-scores yielded similar patterns.

**Results:** With PPTs (Exp.1), evidentials had no effect (Fig.1, p's>.2, lmer). But MDs (Exp.2) show *effects of evidentiality type on opinion generalizability* (Fig.2): The **IE**-condition is *less generalizable* than **HE**, **DE** and baseline (t's>3, p's<.01; DE vs. IE: sig with z-scores t=-2.35, p=.02, marg with raw t=-1.77, p=.07). The MD results support **H3:** *both* reliability (DE) *and* existence of other opinion-holders (HE) boost generalizability, relative to IE. However, because the ***baseline*** is as generalizable as HE/DE, this means that **IE lowers generalizability**: *IE marking, which signals a lack of direct evidence and offers no information about other opinion-holders, decreases generalizability*. (PPTs' absence of effects fits with lack of information about other opinion-holders lowering generalizability, assuming MDs are more tied to social norms.)

**In sum,** we provide novel evidence for a close relationship between evidentiality, subjectivity and the perceived generalizability of opinions. Opinions marked as *inference-based* are perceived as less generalizable.

Table 1. Korean example ('hamili' is a nonce word; each trial had a different nonce word)

| Condition | Example sentence with glosses and English translation (DECL=declarative marker) |
|---|---|
| (a) Baseline | hamili ku-ke massis-e<br>hamili that-thing tasty-DECL<br>'The hamili is tasty.' |
| (b) Direct evidential **DE** | hamili ku-ke massis-**te**-la<br>hamili that-thing tasty-**DIRECT.EVIDENTIAL**-DECL<br>'The hamili is tasty (, I have direct perceptual experience.)' |
| (c) Inferential evidential **IE** | hamili ku-ke massis-**napo**-a<br>hamili that-thing tasty-**INFERENTIAL.EVIDENTIAL**-DECL<br>'The hamili is tasty (, it seems.)' |
| (d) Hearsay evidential **HE** | hamili ku-ke massis-**tay**<br>hamili that-thing tasty-**HEARSAY.EVIDENTIAL**<br>'The hamili is tasty (, I hear.)' |

**(1) QUESTION**

If we select 100 random aliens from this planet, how many of them would hold the opinion that the hamili is tasty? [answer with a number between 0 and 100]

Fig.1: Predicates of personal taste

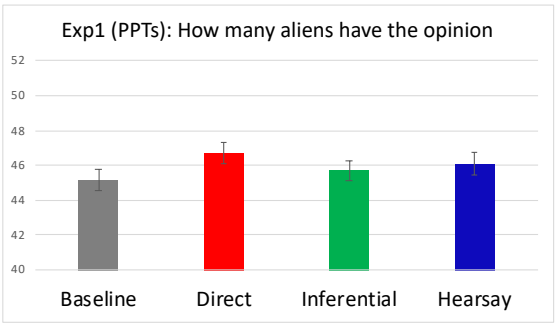
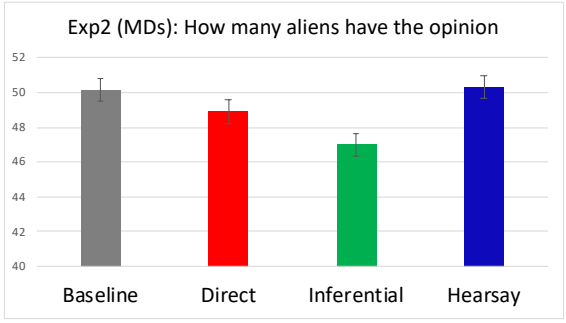



Fig.2: Multidimensional adjectives




(The y-axis shows the average number of aliens, out of 100, who participants said would hold the opinion that the ***NOUN*** is ***ADJECTIVE***, see question (1) above for an example)

**References**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**Korean evidential marking:**

Evidential markers can modify both objective statements (as in (a)) and subjective opinions (see Table 1).

a) pi-ka (a.) o-**te**-la (b.) o-**napo**-a (c.) o-n-**tay** [Korean]
rain-NOM come-DIR.EV.-DECL come-INF.EV.-DECL come-PRES-HEARSAY.EV.
'It's raining (, I have direct perceptual evidence / , it seems / , I hear.)'

In (a), the direct evidential (DE) *-te-* indicates the speaker has direct perceptual experience.

The inferential evidential (IE) *-napo-* marks inductive inference based on the speaker's perception.

The hearsay evidential (HE) *-tay-* marks a secondhand hearsay report. HE marking is *not* grounded in the speaker's own perception, and **presupposes the existence of an original source other than the speaker.**