

Encoding ignorance: epistemic indefinites in Tiwa

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Introduction. Gricean theory neatly captures various aspects of perceived linguistic meaning as a consequence of general-purpose reasoning about language in use. Recently, Gricean accounts have been extended to the epistemic effects that arise with certain “epistemic indefinites” (EIs), such as German *irgendein* (Kratzer & Shimoyama 2002, K&S). In this paper, I argue that languages vary in whether the epistemic effect associated with EIs arises pragmatically, as K&S propose, versus semantically (i.e., as a matter of linguistically encoded meaning). Epistemic indefinites in Tiwa (Tibeto-Burman) not only **express** ignorance as a matter of reasoning in context; they semantically **encode** it. Tiwa EIs therefore contrast with German *irgendein* EIs in (i) domain effects, (ii) sensitivity to DE contexts, (iii) indifference readings, and (iv) cancellability. The Tiwa data thus represent a clear case in which an aspect of meaning that is conveyed pragmatically in one language is encoded semantically in another.

Gricean reasoning and EIs. Many languages have indefinite pronouns that can convey speaker ignorance with respect to the witness to the indefinite. One famous example is German *irgendein*, which conveys speaker ignorance or indifference in non-DE contexts. K&S provide an elegant account of *irgendein*'s behavior, attributing the ignorance and indifference readings to Gricean reasoning, namely, to avoidance of a false exhaustivity claim. Crucially, on their account, *irgendein* is a domain widener: unlike its counterpart *ein*, it must range over the maximal domain. Using an indefinite with a maximally wide domain in a non-DE context leads to a weaker claim, triggering the epistemic or indifference implicature. Since the use of a domain widener in DE contexts leads to a stronger claim, the ignorance and indifference readings do not arise in these contexts. This pragmatic account is further supported by the fact that the ignorance implication is cancellable, a hallmark trait of implicatures. Thus K&S derive the indifference and ignorance readings of *irgendein* through general pragmatic principles coupled with relatively minimal semantic facts about the indefinite itself: specifically, that it is a domain widener. K&S's general Gricean analysis has been extended to EIs in other languages, e.g. by Alonso-Ovalle & Menéndez-Benito (2010) for Spanish *algún*, with differences in epistemic effects attributed to the different results that the same Gricean reasoning yields given independent differences in the domain-related semantics of the indefinites.

Tiwa's EIs. EIs in Tiwa are formed from indeterminate pronouns and the suffix *-khi*. These pronouns contrast with *irgendein* EIs in several ways. First, Tiwa's EIs freely range over singleton domains, as in (1): there is only one Indian prime minister, the individual Narendra Modi. (It was clear from the elicitation context and oddity of the regular indefinite determiner in this sentence that the extension of *Indiane PM* did not include former prime ministers.) This shows that domain widening is not necessary for the use of the EI *sharkhí*, in contrast to German EIs with *irgendein*.

- (1) Ang [**shar-khí** India-ne PM-gô]_{DP} lak mán-a lí-do.
1SG who-KHI India-GEN PM-ACC meet-INF go-IPFV
'I'm going to meet some Indian Prime Minister.'
Felicitous context: The speaker hasn't met him before.

Second, *-khi* indefinites show no sensitivity to downward entailing contexts. Instead, they always take widest possible scope, including in violation of scope islands (illustrated in (2) with a finite embedded clause). The epistemic effects are always present. This demonstrates that domain widening is not sufficient to account for the meaning of *-khi* indefinites. Something else must be appealed to, to ensure exceptional wide scope.

- (2) [**Shar-khí** phi-do honmandé]_{CP} thángane cha.
who-KHI come-IPFV COMP correct NEG
'It's not correct that someone came.'
✓: There's a particular person, who the speaker doesn't know, that didn't come. $\exists > \neg$
#: Nobody came. $* \neg > \exists$

Third, the use of a *-khi* indefinite always conveys speaker ignorance; *-khi* indefinites are incompatible with an indifference reading. This is illustrated particularly clearly through their incompatibility in imperatives, as in (3), in contrast to the regular (*-pha*) indefinite. (Indefinites with *-pha*, I will demonstrate, behave as canonical existential generalized quantifiers.) This shows that ignorance is not simply one possible pragmatic effect among several compatible with a notably weak statement.

- (3) # **Inda-khí-gô** chá-bo!
 what-KHI-ACC eat-BO
 Intended: ‘Eat something!’

Finally, the epistemic effects of *-khi* indefinites are not cancellable, as in (4): *-khi* indefinites **must** always signal ignorance about some salient property of the witness. This suggests that the epistemic effect of *-khi* EIs is not a classic implicature.

- (4) Maria **shar-khí-gô** lak man-ga, # arô shar-gô ang si-w.
 Maria who-KHI-ACC meet-PFV and who-ACC 1SG know-NEUT
 ‘Maria met someone, # and I know who.’

In cases where the epistemic component might initially appear to be cancelled, as in (5), *-khi* indefinites still convey that the speaker does not know **some** salient property about the witness. In this example, the speaker can identify the witness by name, but the use of *sharkhí* signals that she doesn’t know him as well as she ought to know a friend. The follow-up would be infelicitous without the final clause.

- (5) Ang **shar-khí** chor-gô lak mán-a lído. Pene mung Jon, thêbo pego kumún si-ya-ng.
 1SG who-KHI friend-ACC meet-INF going his name John but him well know-NEG-1SG
 ‘I’m going to meet some friend (of mine). His name is John, but I don’t know him well.’

The kind of speaker ignorance that must be conveyed is relatively free: any contextually salient property is sufficient.

Not pragmatic. Since *-khi* indefinites can range over a singleton domain, K&S’s analysis – which crucially depends on the domain widening properties of the indefinite – cannot be extended to them. Alternative Gricean analyses are similarly incapable of accounting for the full range of the data: appeal to competition between a wide-scope indefinite and a definite description, for instance, cannot account for the absence of an indifference reading. (Speakers may have a variety of reasons for under-informativity.)

Analysis. I propose that *-khi* indefinites are choice functional, which accounts for their exceptional wide scope (Reinhart 1997; Kratzer 1998). I propose that they also carry a presupposition of speaker ignorance about some contextually salient property of the witness: ignorance is encoded on the indefinite itself, rather than arising pragmatically. Specifically, the presupposition that *-khi* indefinites carry is that for some salient property Q, there is at least one world in the doxastic alternatives of the speaker in which Q(x) is true and at least one world in which Q(x) is false, where x is the witness to the indefinite. The denotation for *sharkhí* ‘someone’ is given in (6). The presupposition is formalized using Beaver’s (1992) δ operator, which allows the presupposition to impose constraints on the same individual that the choice function selects in the asserted content. The property Q is left as a free variable to capture the context-dependency of the kind of ignorance *-khi* indefinites can signal.

- (6) $\llbracket \text{sharkhí} \rrbracket = \lambda P.P(f(\text{human})) \ \& \ \delta(\text{IDK}(f(\text{human})))$, where f is a CF,
 and $\text{IDK} = \lambda x.\exists w \in \text{Dox-alt}(\text{speaker})[Q(x)(w)=1] \ \& \ \exists w' \in \text{Dox-alt}(\text{speaker})[Q(x)(w')=0]$

Conclusion. Tiwa presents a clear case of an EI for which the epistemic effects do not arise through Gricean reasoning, but are rather encoded directly on the indefinite itself. The facts contrast with those that motivate a pragmatic analysis of *irgendein* EIs, suggesting that languages vary in whether epistemic effects arise pragmatically or semantically. This finding connects closely with work on EIs by Aloni & Port (2015), who propose that EIs impose obligatory shifts in conceptual covers, and these shifts are only licensed in situations in which the speaker’s knowledge state supports it. With German *irgendein* as the clearest case of a purely pragmatic EI, and Tiwa *-khi* indefinites as firmly semantic, it is clear that the epistemic effects of EIs can arise in very different ways in different languages.