

Negative bias, reminding, and pragmatic reasoning in Kipsigis belief reports*

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1 Introduction

The Common Ground (CG) is the set of propositions that interlocutors agree to treat as true for the sake of a conversation (Stalnaker 1974; Karttunen 1974; Lewis 1979). An important distinction within the literature on the CG is that between CG content and management (Krifka 2008); CG content refers to the truth conditional information contained *within* the CG, while CG management concerns how the CG content should *develop* over the course of a conversation. There are many expressions that serve CG management functions across languages (e.g. questions, discourse particles), though this paper focuses on the CG management function of belief reports. Much work has explored how belief reports of the form $x V_{att} p$ can function pragmatically not just as reports of x 's internal state, but also as devices for indicating the status of p with respect to the CG.¹ In addition to the case of factive verbs, which presuppose p , recent work has explored negatively biased belief verbs, which suggest that p is false or unlikely and so should not be added to the CG (see e.g. Tagalog *akala*, Kierstead 2013; various verbs in Taiwanese Southern Min, Hsiao 2017; Spanish *creerse*, Anvari et al. 2019; and Mandarin *yǐwéi*, Glass to appear).

Yet despite the fact that these negatively biased belief verbs are doing CG management—they are indicating how the CG should change during a conversation—the modeling of this effect is typically in terms of CG content. For instance, Anvari et al. (2019) argue that the negatively biased belief verb *creerse* in Spanish is anti-factive, requiring the input CG to contain $\neg p$, while Glass (to appear) claims that that the output CG after an utterance with Mandarin *yǐwéi* must be compatible with $\neg p$. These accounts highlight the fact that CG management is often accomplished by placing requirements on CG content, rather than by baking CG management instructions into a lexical denotation. In light of this tendency, a natural question arises: is CG management just

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¹Throughout the paper, I use x as shorthand for the belief holder and p for the reported belief.

the consequence of placing requirements on CG content, or is it a theoretical primitive in its own right? Put differently, can instructions for CG management be built into lexical denotations, or do these denotations simply refer to CG content with CG management happening as a by-product?

In this paper, I draw on original field data to show that the negatively biased belief verb *par* ‘think’ in Kipsigis (Kalenjin; Kenya) is best modeled as contributing, in addition to its basic belief semantics, a direct instruction for CG management: *p* is not to be added to the CG. The Kipsigis verbs *pwaat* (1a) and *par* (1b) both translate generally to ‘think’. Despite this similarity, use of *par* triggers additional inferences about *p*’s status in relation to the CG, while *pwaat* is neutral in this respect.^{2,3}

- (1) a. i-**pwaat**-e kaameεε-nyʊʊn kole aa-mnyon-i.
 3-think-IPFV mother-1SG C 1SG.POSS-be.sick-IPFV
 ‘My mother **thinks** that I’m sick.’
- b. ∅-**par**-e kaameεε-nyʊʊn aa-mnyon-i.
 3-think-IPFV mother-1SG.POSS 1SG-be.sick-IPFV
 ‘My mother **is under the impression** that I’m sick.’

Par in (1b) strongly suggests that the speaker is not actually sick, while *pwaat* in (1a) leaves the issue open.⁴ Notably, though, *par* serves a different function in the present tense with a 1st person belief holder. Here, *par* has a reminding function: the speaker uses the *par* statement in (2) to indicate that their interlocutor should already know *p*.

- (2) I arrive home and see a guest. I don’t know who the guest is, so I ask my mother who they are. She replies:
 a-**par**-e abuleyaanit.
 1SG-think-IPFV uncle
 ‘**Remember**, it’s your uncle.’ (Lit: ‘I think that it’s the uncle.’)

Against this backdrop, I show that Kipsigis *par* cannot be modeled just in terms of CG content before or after utterance of the *par* statement, but instead contributes a direct instruction for CG management: *p* must not be *added* to the CG. Together with context-sensitive pragmatic reasoning, this instruction explains the case of a verb that can be used both to suggest that *p* is

²Abbreviations include: 1=first person, 2=second person, 3=third person, COP=copula, IPFV=imperfective aspect, MOD=modal, NEG=negation, PERF=perfect, POSS=possessive, PST=past tense, PL=plural, REFL=reflexive, SBJV=subjunctive, SG=singular, Q=yes/no question particle.

³3rd person indicative subject agreement is either null or *i-* as determined by the conjugation class of the verb (i.e. Class I or Class II). Many verbs alternate between the two classes with a semantic effect—specifically, anticausative vs. causative interpretation—while many others appear exclusively in one class with no semantic generalization predicting which class a verb is in. In my data, *pwaat* is always in Class II, while *par* is always in Class I. See Toweett (1979) and Creider & Creider (1989) for more discussion of Kalenjin verb classes.

⁴Because Kipsigis is a spoken language, I use the terms “speaker” and “listener” in this paper, though they could be replaced with “author” and “addressee” if applied to non-spoken modalities. I use “interlocutor” to refer to all participants in a conversation.

false (1b) and to remind the addressee that p is true (2). In this way, the Kipsigis facts indicate that CG management instructions can be lexicalized, just like requirements on CG content.

This analysis of *par* constructions contributes to a growing body of work on negatively biased belief verbs and offers a new perspective on the modeling of different types of CG management. More specifically, the Kipsigis data show that lexical items must be able to directly encode instructions for CG management, rather than simply checking for set membership of $(\neg)p$ in the CG, as is standard in analyses of CG management (e.g. Repp 2013; Grosz 2016; Anvari et al. 2019; Glass to appear). Constructions with Kipsigis *par* are felicitous in a wide range of contexts, including when the input CG contains $\neg p$, says nothing with respect to p , or contains p . In this way, reference to membership of a particular proposition in the CG—before or after utterance of the *par* statement—is insufficient to capture the full range of effects seen with *par*; direct reference to operations on the CG is also necessary (i.e. *par*'s instruction to not add p to the CG).

The paper is structured as follows. In §2, I describe the data, with a focus on *par*'s different interpretive effects with non-1st person vs. 1st person belief holders. §3 provides an analysis of *par* and *pwaat*, which spans the semantics-pragmatics interface and attributes their interpretive differences to a CG management instruction that *par* provides: that p not be added to the CG. In §4, I detail the implications of this analysis for theories of CG management. §5 concludes. Data come from my fieldwork on Kipsigis with three US-based speakers in the Bay Area in CA and in Washington, DC. Judgements were elicited using many of the contexts in Glass (to appear), as well as additional contexts suggested by speakers and myself.

2 Key data

Kipsigis is an understudied Nilo-Saharan language of the Kalenjin sub-group spoken by about 1.9 million people in Western Kenya (Eberhard et al. 2021). The Kipsigis verbs *par* and *pwaat* both mean 'think', though use of *par* triggers additional inferences about p 's status in relation to the CG. Because *par* is a belief verb, its specific effect on the discourse depends on who the belief holder is—in particular, whether they are the speaker or someone else. For this reason, I describe sentences with non-1st person belief holders in §2.1, then consider sentences with 1st person belief holders in §2.2.

2.1 Interpretation with non-1st person belief holders

With non-1st person belief holders, use of *par* indicates that the speaker knows p to be false, is biased against p whether or not the truth of p is known, or finds x unreliable. First, if the speaker knows that the reported belief is false, statements with *pwaat* are strongly dispreferred in comparison to their counterparts with *par*, as illustrated in (3) - (4). I use #? to indicate strong dispreference—rather than outright infelicity—as speakers can often choose to use *pwaat* if they wish to appear neutral, regardless of whether they actually *are* neutral with respect to p .⁵

⁵As seen in (3) - (4), *pwaat* and *par* involve different syntactic complementation strategies: *pwaat* must co-occur with *kole*, while *par* cannot. §3.4 discusses this pattern, where I build on the analysis in Driemel & Kouneli (2022) to show that the semantics of *kole* cannot be responsible for the interpretive differences between *pwaat* and *par*.

- (3) We all know that I'm healthy, but my mother thinks that I'm sick because I fooled her to skip school. I say:
- a. #? i-**pwaat**-e kaameε-nyʊʊn kole αα-mnyon-i.
 3-think-IPFV mother-1SG.POSS C 1SG-be.sick-IPFV
 'My mother **thinks** that I'm sick.'
- b. ∅-**par**-e kaameε-nyʊʊn αα-mnyon-i.
 3-think-IPFV mother-1SG.POSS 1SG-be.sick-IPFV
 'My mother **is under the impression** that I'm sick.'
- (4) Cheptoo's parents think that she's a very good child who doesn't drink or go to parties. But they're wrong—we know that she actually does do these things! I say:
- a. #? i-**pwaat**-e siikiik-αp Cheepta kole mo-ye maiweek.
 3-think-IPFV parents-of C. C NEG-drink alcohol
 'Cheptoo's parents **think** that she doesn't drink alcohol.'
- b. ∅-**par**-e siikiik-αp Cheepta mo-ye maiweek.
 3-think-IPFV parents-of C. NEG-drink alcohol
 'Cheptoo's parents **are under the impression** that she doesn't drink alcohol.'

The contexts in (3) - (4) establish that the speaker knows the reported beliefs to be false. Consequently, the sentences with *par* in (3b) and (4b) are preferred, since they highlight that the reported beliefs are incorrect. Consultants report that (3a) and (4a) are less appropriate in these contexts because they “give the impression that [the mother or parents] could be right or wrong”, even though it is already known that they are mistaken.

Second, use of *par* indicates that the speaker is biased against *p*, whether or not the truth of *p* is known. In the dialogues in (5) - (6), A does not know if Ruto has arrived—evidenced by their initial question. B responds with information about Bett's belief state, using either *pwaat* or *par*. Only in the case of a belief report with *pwaat* (5) is it appropriate for A to assume that Bett is correct and that Ruto has, in fact, arrived; this assumption licenses A's response in (5). When B reports Bett's belief using *par* (6), it is infelicitous for A to accept this belief as true.

- (5) A: ka-ko-it Arap Ruto-i?
 PST-3.PERF-arrive son.of R.-Q
 'Has Arap Ruto arrived?'
- B: i-**pwaat**-e Arap Beet kole ka-ko-it.
 3-think-IPFV son.of B. C PST-3.PERF-arrive
 'Arap Bett **thinks** that he has.'
- A: nen αα-wa ki-kat-kεε any.
 then 1SG-go 1PL-greet-REFL now
 'Then I'll go, now we'll greet each other.'
- (6) A: ka-ko-it Arap Ruto-i?
 PST-3.PERF-arrive son.of Ruto-Q
 'Has Arap Ruto arrived?'

- B: \emptyset -**par**-e Arap Beet ka-ko-it.
 3-think-IPFV son.of Bett PST-3.PERF-arrive
 ‘Arap Bett is **under the impression** that he has.’
- A: # nen aa-wa ki-kat-kεε any.
 then 1SG-go 1PL-greet-REFL now
 ‘Then I’ll go, now we’ll greet each other.’

The difference between these cases of speaker bias and those in which *p* is false is particularly clear in future-oriented sentences, where the truth of the reported belief cannot be known in the present moment. In (7), for example, a journalist is reporting a political candidate’s belief about the upcoming election.

- (7) We turn on Kass TV (a Kalenjin TV station) and see an impartial journalist of unknown political affiliation discussing the upcoming election. The journalist says:
- a. i-**pwaat**-e Jesika kole \emptyset -sindansi-e εεn lewenisiet.
 3-think-IPFV J. C 3-win-IPFV in election
 ‘Jessica **thinks** that she will win the election.’
- b. # \emptyset -**par**-e Jesika \emptyset -sindansi-e εεn lewenisiet.
 3-think-IPFV J. 3-win-IPFV in election
 ‘Jessica is **under the impression** that she will win the election.’

(7b) is inappropriate for an impartial journalist to say because it suggests that the journalist doubts that Jessica will win the election. Speakers comment that this sentence comes across as though the journalist is mocking the candidate who (wrongly) believes that she will win. In a similar vein, one speaker reports that his father discouraged him from using *par* in belief reports as a child, since they can come across as rude if not used carefully. However, by introducing explicit bias into the context, speakers’ felicity judgements flip. If the journalist is instead a biased political pundit as in (8), sentences with *par* like (8b) are ideal.

- (8) We turn on Kass TV (a Kalenjin TV station) and see a biased political pundit who believes that Jessica will lose the upcoming election. The pundit says:
- a. #? i-**pwaat**-e Jesika kole \emptyset -sindansi-e εεn lewenisiet.
 3-think-IPFV J. C 3-win-IPFV in election
 ‘Jessica **thinks** that she will win the election.’
- b. \emptyset -**par**-e Jesika \emptyset -sindansi-e εεn lewenisiet.
 3-think-IPFV J. 3-win-IPFV in election
 ‘Jessica is **under the impression** that she will win the election.’

An identical pattern of speaker bias is observed with 2nd person belief holders. An impartial journalist cannot felicitously report their addressee’s future-oriented belief using *par*, as evidenced by the infelicity of (9b).

(9) During an interview, a presidential candidate says *Atinye komong'unet ne oo kole kipelisie i εεn lewenisiet* 'I have a lot of faith that we will win the election.' An impartial journalist replies:

- a. ii-**pwaat**-e kole i-pelisie-i εεn lewenisiet
 2SG-think-IPFV C 2SG-win-IPFV in election
 '(So) you **think** that you'll win the election.'
- b. # i-**par**-e i-pelisie-i εεn lewenisiet.
 2SG-think-IPFV 2SG-win-IPFV in election
 '(So) you **are under the impression** that you'll win the election.'

The parallelism between (7) with a 3rd person belief holder and (9) with a 2nd person belief holder shows that this speaker bias is not tied to a 3rd person belief holder. Instead, this interpretive effect arises with any non-1st person belief holder.

Third, speakers use *par* to indicate that they find the belief holder unreliable, even if they do not know the truth of the reported belief themselves. For instance, in an out-of-the-blue context where the speaker has no reason to doubt the belief holder's reliability, statements with *pwaat* are perfectly natural (10a), while those with *par* are infelicitous (10b).

(10) We walk up to some people at a party and hear them talking about who has and hasn't arrived. We have no idea if Arap Ruto is here, nor any idea why Arap Bett has the beliefs that he does. I say:

- a. maa-ngen koto ka-ko-it Arap Ruto anan tomo lakini i-**pwaat**-e
 NEG.1SG-know if PST-3.PERF-arrive son.of Ruto or not.yet but 3-think-IPFV
 Arap Beet kole ka-ko-it.
 son.of B. C PST-3.PERF-arrive
 'I don't know if Arap Ruto has arrived yet, but Arap Bett **thinks** that he has.'
- b. # maa-ngen koto ka-ko-it Arap Ruto anan tomo lakini ∅-**par**-e
 NEG.1SG-know if PST-3.PERF-arrive son.of Ruto or not.yet but 3-think-IPFV
 Arap Beet ka-ko-it.
 son.of B. PST-3.PERF-arrive
 'I don't know if Arap Ruto has arrived yet, but Arap Bett **is under the impression** that he has.'

Consultants comment that (10b) is inappropriate because the speaker has no information that would allow them to judge Bett's belief, as use of *par* suggests. However, when the context establishes that the belief holder is unreliable in some way as in (11), *par* becomes natural.

(11) Arap Bett is drunk and is acting confused. I have no idea if Arap Ruto is here or not, but I have reason to doubt Arap Bett's reliability. I say:

- maa-ngen koto ka-ko-it Arap Ruto anan tomo lakini ∅-**par**-e Arap
 NEG.1SG-know if PST-3.PERF-arrive son.of R. or not.yet but 3-think-IPFV son.of

Beet ka-ko-it.

B. PST-3.PERF-arrive

‘I don’t know if Arap Ruto has arrived yet, but Arap Bett is **under the impression** that he has.’

In this way, even when the sentence explicitly states that the speaker does not know whether or not *p* is true, *par* statements are appropriate when the belief holder is deemed unreliable.

2.2 Interpretation with 1st person belief holders

With 1st person belief holders, *par* has different interpretive effects depending on the tense of the belief verb. Intuitively, this distinction arises because individuals can stand in different relationships with their past beliefs vs. their present ones. People typically assume that their present beliefs are true—otherwise, they would not believe them. However, it is entirely possible for individuals to recognize their past beliefs as false, if their epistemic state has changed in some relevant way. In the past tense, then, speakers use *par* with a 1st person belief holder when they thought *p* was true, but have since learned that *p* is false (12) - (13).

(12) I went to school because I thought there was a meeting, but it was actually cancelled. When I get home, my mom asks why I went to school, so I respond:

a. #? kaa-pwaat-e kole mii tuiyeet ra.
PST.1SG-think-IPFV C COP meeting today
‘I **thought** there was a meeting today.’

b. kaa-par-e mii tuiyeet ra.
PST.1SG-think-IPFV COP meeting today
‘I **was under the impression** that there was a meeting today.’

(13) I left my car with a friend while I was out of town because I thought they would use it. But when I get back, I learn that they actually don’t know how to drive! I say:

a. #? kaa-pwaat-e kole ii-ngen i-get karnt.
PST.1SG-think-IPFV C 2SG-know 2SG-drive car
‘I **thought** you knew how to drive a car.’

b. kaa-par-e ii-ngen i-get karnt.
PST.1SG-think-IPFV 2SG-know 2SG-drive car
‘I **was under the impression** that you knew how to drive a car.’

The pattern seen here parallels that in (3) - (4) with 3rd person belief holders; *par* suggests that *p* is false, which is only possible in the past tense with 1st person belief holders.

Yet crucially, in the present tense, speakers use *par* with a 1st person belief holder for a very different purpose. In sentences like the a. examples in (14) - (16), *par* serves a reminding function. Speakers report that, in these types of sentences, *par* suggests that the addressee should already know *p* or, in the words of one consultant, that “*p* is already a foregone conclusion”. *Par* serves not to weaken the strength of these statements, but rather to highlight the fact that *p* should be

common knowledge—for reasons ranging from shared cultural norms (14) to prior knowledge (15) to physical context (16).

(14) Church meetings are always loud, which we both know. We hear lots of noise, and you ask me what it is. I respond:

- a. α -**par**-e mii tuiyeet ra.
1SG-think-IPFV COP meeting today
'Of course, there's a meeting today.' (Lit: 'I think that there's a meeting today.')
- b. # $\alpha\alpha$ -**pwaat**-e $\alpha\alpha$ -le mii tuiyeet ra.
1SG-think-IPFV 1SG-C COP meeting today
'I **think** there's a meeting today.'
- c. #? mii tuiyeet ra.
COP meeting today
'There's a meeting today.'

(15) Nick and Sharon live in Oakland, which I should know because I've been to their house before. When they invite me over for dinner, I ask them what city they live in, thinking that it's Berkeley. They want to remind me where they live by saying:

- a. α -**par**-e ki-meny-e Oakland.
1SG-think-IPFV 1PL-live-IPFV Oakland
'We live in Oakland, as you know.' (Lit: 'I think that we live in Oakland.')
- b. # $\alpha\alpha$ -**pwaat**-e $\alpha\alpha$ -le ki-meny-e Oakland.
1SG-think-IPFV 1SG-C 1PL-live-IPFV Oakland
'I **think** we live in Oakland.'
- c. #? ki-meny-e Oakland.
1PL-live-IPFV Oakland
'We live in Oakland.'

(16) I see a friend heading outside in a t-shirt and shorts, even though it's the middle of winter. I want to remind them that it's way too cold for that kind of outfit! I say:

- a. α -**par**-e kartit ra.
1SG-think-IPFV cold today
'Hang on, it's cold today.' (Lit: 'I think that it's cold today.')
- b. # $\alpha\alpha$ -**pwaat**-e $\alpha\alpha$ -le kartit ra.
1SG-think-IPFV 1SG-C cold today
'I **think** it's cold today.'
- c. #? kartit ra.
cold today
'It's cold today.'

In uttering these statements, the speaker is not indicating any doubt on their part about *p*; the speaker of (14) *knows* that there is a church meeting, the speaker of (15) *knows* that they live in Oakland, and the speaker of (16) *knows* that it is cold out; for this reason, the equivalent statements with the neutral belief verb *pwaat* are infelicitous, as seen in the b. examples. Instead, competition here is between the *par* statement and the bare proposition, which is acceptable

though dispreferred, as it does not explicitly serve a reminding function. For instance, speakers suggest that the *c.* examples are perhaps more polite, since they do not highlight that the addressee is forgetting something, but are less suited to the context, which explicitly calls for reminding.

Another example of *par*'s reminding function is seen in (17), where the *par* statement is infelicitous when the speaker cannot assume the reported belief to be shared knowledge with their addressee.

- (17) Arap Ruto is in charge of the linguistics department. I'm planning to go to Kenya and need permission to do so. I talk to my advisor, and she says:
- a. α -**pwaat**-i kole yooche ii-ng'olaal-chi Arap Ruto.
1SG-think-IPFV C should 2SG-speak-APPL son.of R.
'I **think** that you should speak to Arap Ruto.'
 - b. # α -**par**-e yooche ii-ng'olaal-chi Arap Ruto.
1SG-think-IPFV should 2SG-speak-APPL son.of R.
'As you **know**, you should speak to Arap Ruto.'

The sentence in (17b) with *par* is infelicitous because the addressee cannot be assumed to already know that they should speak to Arap Ruto; rather, getting advice from the advisor about what the addressee should do is the goal of the conversation. Consultants note that (17b) is odd for an advisor to use because it comes across as if they are reprimanding their addressee for not already speaking to Arap Ruto or not knowing to do so.

Notably, this reminding function is restricted to 1st person belief holders. Even though the context in (18) sets the stage for a reminding use of *par*, this reading is unavailable with 3rd person *pare*. Speakers note that *pare* in (18a) implies that the speaker believes the doctor to be wrong, which is inappropriate given the doctor's medical expertise. In this way, *par* has only a negative bias reading with a 3rd person belief holder. To get at a reminding function, speakers embed the doctor's belief—reported with the neutral belief verb *pwaat* instead of *par*—under 1SG *apare* (18b).

- (18) You go to the doctor because you're coughing and have a sore throat. The doctor thinks that you have Covid, but hasn't run a test because his office ran out. He sends you home, but tells you to isolate and follow the Covid guidelines. I see you getting dressed to leave the house and want to remind you what the doctor thinks. I say:
- a. # \emptyset -**par**-e daktaari i-tiny-e koroona.
3-think-IPFV doctor 2SG-have-IPFV Covid
'**Remember**, the doctor thinks that you have Covid.'
 - b. α -**par**-e i-pwaat-e daktaari kole i-tiny-e koroona.
1SG-think-IPFV 3-think-IPFV doctor C 2SG-have-IPFV Covid
'**Remember**, the doctor thinks that you have Covid.'

The same pattern is seen with 2nd person belief holders. Use of 2SG *ipare* in a reminding scenario

like (19) is infelicitous, as it implies that the speaker doubts the addressee’s belief. Instead, the addressee’s belief must be embedded under 1SG *apare* (19b).

- (19) When you woke up this morning, you told me that you were feeling sick, so you weren’t going to go to school today. But when I see you a little bit later, you’re getting dressed and putting things in your backpack, as if you’re going to school. I’m confused and want to remind you of what you told me earlier, so I say:
- a. # i-**par**-e ii-mnyoon-i.
 2SG-think-IPFV 2SG-be.sick-IPFV
 ‘Wait a minute, you think that you’re sick.’
- b. a-**par**-e ii-pwaat-e kole ii-mnyoon-i.
 1SG-think-IPFV 2SG-think-IPFV C 2SG-be.sick-IPFV
 ‘Wait a minute, you think that you’re sick.’

In this way, *par*’s reminding function is restricted to instances with a 1st person belief holder in the present tense.⁶

To summarize, the specific interpretive effects triggered by *par* depend on the person of the belief holder, as well as the tense of the belief verb, as in Table 1. With non-1st person belief holders, use of *par* indicates that *p* is false, that the speaker is biased against *p*, or that *x* is unreliable. With 1st person belief holders, *par*’s effects differ across tenses. In the past tense, *par* suggests that *p* is false, as with non-1st person belief holders. However, in the present tense, *par* serves to remind listeners that they should already know *p*.

Table 1: Summary of interpretive effects with *par*

Context	Interpretive effect
non-1st person <i>par p</i>	Suggests that <i>p</i> is or may be false
1st person past <i>par p</i>	Suggests that <i>p</i> is or may be false
1st person present <i>par p</i>	Reminds the addressee of <i>p</i>

In this way, *par* serves two seemingly contradictory purposes: to suggest that *p* is or may be false and to remind the addressee that *p* is true. This reminding function is not seen with other

⁶I have found speaker variation with respect to the availability of a reminding function with a 1st person plural belief holder. For one speaker, use of 1PL *kipare* to serve a reminding function in (1) is perfectly natural, since the speaker is responding on behalf of themselves and their partner.

- (1) Nick and Sharon live in Oakland, which I should know because I’ve been to their house before. When they invite me over for dinner, I ask them what city they live in, thinking that it’s Berkeley. They want to remind me where they live by saying:
- ki-**par**-e ki-meny-e Oakland.
 1PL-think-IPFV 1PL-live-IPFV Oakland
 ‘We live in Oakland, as you know.’

Another speaker, however, disprefers (1), since he finds it odd for one person to speak for another here using 1PL *kipare* rather than 1SG *apare*.

negatively biased belief verbs across languages; for instance, Spanish *creerse* is incompatible with 1st person belief holders (Anvari et al. 2019:ex. 13), while Mandarin *yǐwéi* is necessarily interpreted as past tense or very hedged with 1st person belief holders (Glass to appear:ex. 11-12). Yet although it is unique for a negatively biased belief verb, *par*'s reminding function is familiar from discourse particles like German *ja* and *doch*. In the following section, I provide a unified analysis of Kipsigis *par* that draws inspiration from these two bodies of literature.

3 Analysis

My analysis of Kipsigis *par* combines insights from the literature on negatively biased beliefs verbs—in particular, the analysis of Mandarin *yǐwéi* ‘think’ in Glass (to appear)—with those on the modal particles *ja* and *doch* in German, which have similar reminding functions to present tense *par* with a 1st person belief holder. My analysis spans the semantics-pragmatics interface. Semantically, in addition to its standard belief semantics, *par* contains a direct instruction for CG management: that *p* is not to be added to the CG. Pragmatically, then, speakers reason about why *p* must not be added to the CG, which implicates that *p* is false or unlikely, *x* is unreliable, or *p* is already in the CG. This bipartite analysis captures the wide range of interpretive effects associated with *par*, while requiring minimal semantic differences between *par* and *pwaat*.

3.1 Semantics of *par*

I assume a framework in which sentences are updates to the CG (Karttunen 1974; Stalnaker 1979). For instance, upon utterance of the belief report in (20), there are two propositions that can enter the CG: that the speaker’s mother has a particular belief (i.e. *x* thinks *p*) and that the speaker is sick (i.e. *p*).

- (20) i-**pwaat**-e kaamεε-nyʊʊn kole aa-mnyon-i.
 3-think-IPFV mother-1SG.POSS C 1SG-be.sick-IPFV
 ‘My mother **thinks** that I’m sick.’
- a. Proposition 1: The speaker’s mother has a particular belief.
 - b. Proposition 2: The speaker is sick.

Under typical circumstances, listeners accept the proposition in (20a) by default; that is, they assume that the speaker of (20) is offering a truthful belief report, given assumptions about co-operation in discourse (Grice 1989). This proposition enters the CG, which leads to update of the form schematized in (21).

$$(21) \text{CG}_{\text{output}} = \text{CG}_{\text{input}} \cup \{x \text{ thinks } p\}$$

Acceptance of this proposition into the CG results in an output set, which contains the input set plus the added proposition.⁷

⁷A different though equivalent framing involves the context set—the set of worlds consistent with the propositions in the CG (Karttunen 1974; Stalnaker 1979). Here, when an assertion *S* is accepted in a context *c*, the updated

Likewise, the proposition in (20b) can be added to the CG, although update of this sort depends on how interlocutors evaluate the likelihood of the proposition and the reliability of the belief holder. If the proposition seems reasonable and the belief holder is viewed as reliable, then this additional proposition can enter the CG. In this case, CG update takes the form in (22).

$$(22) \quad \text{CG}_{\text{output}} = \text{CG}_{\text{input}} \cup \{x \text{ thinks } p, p\}$$

In this way, attitude reports with *pwaat* allow two types of CG update: just the proposition x thinks p can be added to the CG, or the propositions x thinks p and p can both be added to the CG. The fact that *pwaat* allows for these two CG update possibilities aligns with speaker intuitions that use of *pwaat* “leaves the issue open” as to whether or not the reported belief is true. If p is added to the CG—in addition to x thinks p —then it is assumed to be true. However, p does not need to be added to the CG, which leaves open the possibility that it is false.

By contrast, I argue that statements with *par* allow only one type of CG update—in particular, that seen in (21) where only the proposition x thinks p is added to the CG. The meaning of *par* contains two parts. Its at-issue content states that in all the worlds compatible with x ’s beliefs, p holds (i.e. standard belief semantics). The not-at-issue content, on the other hand, states that p must not be added to the CG. A sample denotation for *par* is provided in (23), though other formulations of *par*’s at-issue belief semantics are compatible with my analysis.⁸ The key takeaway is that *par* comes with an additional, not-at-issue instruction for CG management.

$$(23) \quad \llbracket \text{par} \rrbracket = \lambda p \lambda x \lambda w. \forall w' \in \text{Dox}_{x,w} [p(w') = 1]$$

not-at-issue content: p must not be added to the CG⁹

For comparison, a sample denotation for *pwaat* is given in (24). *Pwaat* is only minimally different from *par*, in that it does not include a not-at-issue instruction for CG management. The absence of this instruction allows for the two types of CG update described in the previous paragraph.

$$(24) \quad \llbracket \text{pwaat} \rrbracket = \lambda p \lambda x \lambda w. \forall w' \in \text{Dox}_{x,w} [p(w') = 1]$$

not-at-issue content: \emptyset

Evidence that *par*’s CG management instruction is not-at-issue content comes from its behavior in projection contexts; in particular, the negative bias seen with *par* persists in yes-no

context is restricted to only the worlds from c in which S holds. In this way, information is added to the CG by narrowing the context set to a subset of the original (Heim 1982:ch. 3). I frame the discussion here directly in terms of the CG, although it is possible to re-frame the analysis in terms of the context set.

⁸For instance, standard analyses of the *de re* vs. *de dicto* distinction necessitate different denotations for the same attitude verb depending on its interpretation. Because *par* allows both *de re* and *de dicto* readings, it is reasonable to assume that it has multiple distinct denotations. Crucially, though, the negative bias associated with *par* persists across *de re* and *de dicto* interpretations, which suggests that its not-at-issue content is consistent, regardless of differences in its at-issue meaning.

⁹I describe *par*’s not-at-issue content in this theory neutral way because the central claim that p must not be added to the CG can be formalized differently across a range of discourse models. Arguing for one formalization over another is not the focus of this paper. In fact, this situation parallels that of German *ja*; while researchers agree about *ja*’s general CG management function, there is significant debate about how exactly to model this effect (e.g. presuppositionally, Kratzer 1999; Zimmermann 2011 vs. use-conditionally, Gutzmann 2012). See §4 for discussion.

questions and antecedents of conditionals.¹⁰ With yes-no questions, *par* continues to be infelicitous when the reported belief is true, as seen in (25).

(25) You told your family three months ago that you'd be home tomorrow. You're checking to make sure they remember. You say:

- a. toos oo-**pwaat**-i kole a-nyoon-e kaa kaaroon-i?
 MOD 2PL-think-IPFV C 1SG-come-IPFV home tomorrow-Q
 'Do you (pl) **think** that I'm coming home tomorrow?'
- b. # toos o-**par**-e a-nyoon-e kaa kaaroon-i?
 MOD 2PL-think-IPFV 1SG-come-IPFV home tomorrow-Q
 'Are you (pl) **under the impression** that I'm coming home tomorrow?'

Par is only appropriate if the speaker is not coming, but their family thinks that they are (26).

(26) You're definitely not coming home tomorrow, but your family seems to think you are. You say:

- a. #? toos oo-**pwaat**-i kole a-nyoon-e kaa kaaroon-i?
 MOD 2PL-think-IPFV C 1SG-come-IPFV home tomorrow-Q
 'Do you **think** that I'm coming home tomorrow?'
- b. toos o-**par**-e a-nyoon-e kaa kaaroon-i?
 MOD 2PL-think-IPFV 1SG-come-IPFV home tomorrow-Q
 'Are you **under the impression** that I'm coming home tomorrow?'

Likewise, *par*'s interpretive effects project from the antecedent of a conditional. In (27), the context establishes that the reported belief is false and, consequently, the statement with *par* is strongly preferred over the alternative with *pwaat*—even though the attitude verb is in the antecedent of a conditional.

(27) We know that there's definitely no test tomorrow because we're going on a field trip. But Nancy is paranoid and might think that there's going to be a surprise test on the field trip. I say:

- a. #? kot ko-**pwaat**-e Nancy kole mii tiemuutik kaaroon, ko-sooman-i nguuni.
 if 3.SBJV-think-IPFV N. C COP test tomorrow 3.SBJV-study-IPFV now
 'If Nancy **thinks** there's a test tomorrow, she's studying now.'
- b. kot ko-**par**-e Nancy mii tiemuutik kaaroon, ko-sooman-i nguuni.
 if 3.SBJV-think-IPFV N. COP test tomorrow 3.SBJV-study-IPFV now
 'If Nancy **is under the impression** that there's a test tomorrow, she's studying now.'

Crucially, the denotation of *par* in (23) is compatible with the wide range of contexts where *par* statements are felicitous. As seen in §2, *par* statements serve two seemingly contradictory

¹⁰It is impossible to test whether *par*'s interpretive effects persist under negation, since this verb cannot be negated while retaining its 'think' meaning. *Par* also means 'kill', though these constructions involve standard transitive syntax rather than clausal embedding. When *par* is negated, it no longer means 'think' and instead only means 'kill'.

functions: to suggest that p is or may be false and to remind the addressee that p is true. As for this first use, *par*'s negative bias function is similar to that seen with other such belief verbs cross-linguistically. On this use of *par*, I assume that the input CG includes $\neg p$ or says nothing with respect to p . When p is known to be false (3) - (4), the input CG contains $\neg p$. In these cases, *par*'s CG management instruction prevents revision of the CG from $\neg p$ to p , meaning that the output CG must still contain $\neg p$. Likewise, when the truth or falsity of p is unknown (5) - (9), the input CG says nothing with respect to p . In these cases, use of *par* prevents update to $CG_{\text{input}} \cup \{x \text{ thinks } p, p\}$; here the output CG must be $CG_{\text{input}} \cup \{x \text{ thinks } p\}$.

On the other hand, *par*'s reminding function differentiates it from other negatively biased belief verbs, but is reminiscent of discourse particles like German *ja* and *doch*, which serve similar reminding functions. Both *ja* and *doch* instruct the addressee to retrieve from the CG a proposition that is not currently being considered; *doch* then comes with the additional meaning component that the current proposition is at odds with something conveyed previously (Döring 2016). For instance, in sentences like B's response in (28), use of *doch* instructs A to retrieve a forgotten proposition from the CG: that there are workers in the speaker's apartment tomorrow. Although A has forgotten this, B's use of *doch* suggests that the addressee should already know p .

(28) *German* (Döring 2016:ex. 40)

A: Warum kommst du morgen nicht ins Büro?
 why come you tomorrow NEG in.the office
 'Why won't you come to the office tomorrow?'

B: Bei mir sind **doch** morgen Handwerker in der Wohnung.
 at me are DOCH tomorrow builders in the apartment
 'There are builders in my apartment tomorrow.'

where $p = \{w : \text{There are builders in the speaker's apartment tomorrow in } w\}$

While the exact modeling of *ja* and *doch* are controversial, it is widely accepted that, in terms of CG management, a statement containing one of these elements does not have the goal of updating the CG with p , since p is already in the CG (see e.g. Repp 2013; Döring 2016; Grosz 2016). I remain agnostic about how to model these discourse particles, but adopt a central insight from this literature: that reminding functions arise when a proposition is already in the CG, even though a discourse participant might be forgetting this fact.¹¹ Applying this idea to *par*, I assume that the input CG already contains p when a *par* statement is used on its reminding function.

¹¹It is fair to wonder whether it is possible for a proposition to be in the CG without all discourse participants realizing it, especially while maintaining a Stalnakerian CG (Stalnaker 1974). Perhaps this empirical picture necessitates a more complex model of the CG—for instance, that in Beaver (2001), in which there is never a single CG but rather several candidate CGs, with the goal of conversation being to shrink this candidate set. However, I do not believe that such a move is necessary based on the data discussed here. A Stalnakerian CG simply contains all the propositions that the discourse participants *have agreed to treat as true*. Crucially, there is no requirement that all discourse participants are currently attending to all of these propositions. In this way, it is possible for a discourse participant to have agreed to treat a proposition p as true—due to linguistic acceptance of p , common cultural knowledge of p , or observation of p in the non-linguistic context—but then to forget that they accepted p . In this way, the Stalnakerian theory of the CG allows for such a possibility, while the data suggest that this possibility is, in fact, linguistically instantiated.

When p is already in the input CG (14) - (17), use of *par* requires the CG to remain the same with respect to p , which means that p is still part of the output CG.

In this way, statements with *par* are compatible with a wide range of both input and output CGs: those that contain $\neg p$, say nothing with respect to p , or contain p . Table 2 summarizes the input and output CGs that are possible with a *par* statement.

Table 2: Input and output CGs compatible with *par* statements

	CG _{input}	<i>par</i>	CG _{output}
p is not in CG _{input}	$\{\neg p\}$	\rightarrow	$\{x \text{ thinks } p, \neg p\}$
	\emptyset	\rightarrow	$\{x \text{ thinks } p\}$
p is in CG _{input}	$\{p\}$	\rightarrow	$\{x \text{ thinks } p, p\}$

In light of this distribution, *par*'s not-at-issue content cannot be modeled merely as a restriction on the input or output CG, since there is no unified condition that captures the range of contexts where *par* is appropriate. In the framework adopted here, presupposition can be modeled as a restriction on the input CG (Stalnaker 1974). For a presupposition to be met, the CG must look a particular way before utterance of the presupposition trigger; for instance, it must contain or be compatible with a proposition like $\neg p$. Anvari et al. (2019) adopt this type of analysis for the negatively biased belief verb *creerse* in Spanish, which they argue is contrafactive. They claim that, in order for *creerse*'s presupposition to be met, the input CG must contain $\neg p$. Coupled with a syntactic account of neg-raising, this analysis captures the fact that *creerse* typically implies that its complement is false, yet suggests that its complement is true when embedded under negation.

Along similar lines, lexical items can place restrictions on the CG after an utterance—a phenomenon known as postsupposition (Brasoveanu 2009; Lauer 2009). Glass (to appear) uses postsupposition to analyze the negatively biased belief verb *yǐwéi* in Mandarin, proposing that *yǐwéi* requires the output CG to be compatible with $\neg p$. However, it is impossible to extend this type of pre- or postsuppositional analysis to Kipsigis, since neither the input nor output CG of a *par* statement necessarily contains or is compatible with $\neg p$, as noted in Table 2. Such an analysis cannot capture the pattern seen with present tense sentences with 1st person belief holders, in which p is in the input and output CG. This analytic difference is necessitated by Kipsigis sentences like (14) - (17), which have a reminding function and are unavailable with Spanish *creerse* and Mandarin *yǐwéi*.

An alternative approach is to adopt the analysis in Anvari et al. (2019) or Glass (to appear), which rules out 1st person present tense sentences with *par*, then rule this reading back in via a pragmatic rescue strategy. The intuition here is that *par*'s negative bias function is somehow default; only when this use is necessarily blocked—as with 1st person belief holders in the present tense—does the reminding function become available. However, if this rescue strategy were based on general pragmatic principles, there is no reason why it would not also be available with Spanish *creerse* or Mandarin *yǐwéi*, yet these forms generally disallow 1st person belief holders. By

contrast, on my analysis, the variation between Kipsigis vs. Spanish and Mandarin is built into the lexical entry for *par* in its not-at-issue content. In my opinion, this is a more natural way to capture cross-linguistic variation, rather than by proposing that general pragmatic principles variably hold across languages.

Instead, I argue that the distribution of *par* statements indicates that *par* must provide a direct instruction about how the CG is to be operated upon—in particular, that *p* is not to be added to the CG. When *p* is not in the input CG, the CG management instruction proposed here is equivalent to the postsupposition in Glass (to appear). This is because the output CG is necessarily compatible with $\neg p$ when the input CG contains $\neg p$ or says nothing with respect to *p* and *p* cannot be added to the CG. The two analyses only come apart when *p* is already part of the input CG. In these cases, *par*'s CG management instruction prevents update to $CG_{\text{input}} \cup \{x \text{ thinks } p, p\}$, which would be trivial since *p* is already in the input CG. This one CG management instruction is, then, able to capture the full range of contexts where *par* is appropriate. The ability to maintain a single uniform semantics for *par*'s not-at-issue content is a highlight of my analysis. The various inferences that arise regarding *p* in these different contexts as a result of using *par* over the neutral alternative *pwaat* are pragmatically derived, as detailed in §3.2.

3.2 Pragmatics of *par*

Nothing in *par*'s semantic meaning directly gives rise to its specific interpretive effects, which are summarized from §2 in (29).

- (29) Use of *par* instead of *pwaat* or the bare proposition *p* indicates:
- | | |
|--|--|
| a. that <i>p</i> is false, | c. that <i>x</i> is unreliable, or |
| b. that the speaker is biased against <i>p</i> , | d. that the addressee should know <i>p</i> . |

Par's not-at-issue content simply provides an instruction for CG management; it does not make any claims about whether or not the reported belief is true, the belief holder is reliable, etc. Instead, these effects arise pragmatically as conversational implicature in response to a speaker's choice to use *par* over the neutral alternative *pwaat* or the bare proposition *p*. By choosing to use *par* instead of *pwaat* or simply *p*, a speaker prevents *p* from being added to the CG. This choice triggers context-sensitive pragmatic reasoning about why *p* must not be added to the CG—namely because it is false or because it is already in the CG. These different types of reasoning take place depending on who the attitude holder is and what the tense of belief verb is, and lead to the range of inferences in (29).

To see this pragmatic analysis in action, the following paragraphs provide sample derivations for the effects in (29). First, consider (30)—repeated from (3b)—which suggests that the speaker is not actually sick.

- (30) We all know that I'm healthy, but my mother thinks that I'm sick because I fooled her to skip school. I say:
 Ø-**par**-e kaameε-nyʊʊn aa-mnyon-i.
 3-think-IPFV mother-1SG 1SG-be.sick-IPFV

‘My mother is **under the impression** that I’m sick.’

Upon hearing the utterance in (30), listeners make at least the assumptions in (31).

- (31) Upon hearing (30), listeners assume that:
- a. The speaker is being cooperative (Grice 1989).
 - b. The speaker knows whether or not they are sick.
 - c. If they are sick, they should not object to p becoming CG.

By using *par* instead of *pwaat*, the speaker indicates that they do not want p to be added to the CG; to leave open the possibility of adding p , they must use *pwaat*. Listeners then reason about why p must not be added to the CG. In particular, given the assumptions in (31b) and (31c), listeners conclude that the speaker must not be sick (i.e. p must be false). If p were true, the speaker would know that they are sick—or at least have some opinion on the matter—and would not object to p being added to the CG. In such a context, the speaker would not use *par*, which explicitly blocks this addition. If, on the other hand, p is false or the speaker believes p to be false, use of *par* highlights that p should not be added to the CG because it is untrue, making it a natural choice.

Second, the utterance in (32)—repeated from (8b)—suggests that the speaker is biased against p , even though the truth of p is currently unknown.

- (32) We turn on Kass TV (a Kalenjin TV station) and see a biased political pundit who believes that Jessica will lose the upcoming election. The pundit says:
- Ø-**par**-e Jɛsika Ø-sindanisi-e ɛɛn lewenisiet.
3-think-IPFV J. 3-win-IPFV in election
‘Jessica is **under the impression** that she will win the election.’

The reasoning here is very similar to that just described, though it differs in that the speaker does not know whether the reported belief is true or false—contrary to the assumption in (31b). In cases like (32), listeners once again assume that the speaker is being cooperative and would not object to a true proposition being added to the CG. Upon encountering the *par* statement, which blocks addition of p to the CG, listeners reason that the speaker must have some motive for ruling out the more informative CG update with x thinks p and p . When the speaker does not know whether the reported belief is true or false—contra (30)—listeners conclude that the speaker is biased against p in some way. If the speaker believes that p is likely to be true, they would not necessarily rule out the possibility of adding p to the CG, as use of *par* requires. By contrast, if the speaker considers p unlikely, blocking CG update with p makes sense.

This pragmatic reasoning meshes nicely with the empirical fact that speakers must have some reason for using *par* when they do not know whether or not p is true. As noted in §2, when the input CG says nothing with respect to p , *par* statements are infelicitous in out-of-the-blue contexts. For instance, (32) is inappropriate for an impartial journalist with no known political affiliation to report; (32) only becomes acceptable when used by a biased political pundit with a

known political leaning. Likewise, *par* statements are natural when the belief holder is deemed unreliable (e.g. they are drunk), as shown in (11). However, these same statements are infelicitous in out-of-the-blue contexts (10b). For concreteness, use of *par* to indicate that *x* is unreliable is discussed as an independent effect, though it is closely linked to speaker bias against *p*; the only difference between the effects in (29b) and (29c) is the *reason* for the negative bias against *p*. In some cases, the bias arises from the speaker’s personal opinions about what is and is not likely, while in others, it stems from the fact that the belief holder is deemed unreliable. In this way, speakers must have some reason to use a *par* statement against an input CG that is neutral with respect to *p*, yet these reasons can vary across contexts and give rise to slightly different effects depending on the situation.¹² The pragmatic analysis proposed here not only captures this context-dependence but actually predicts it, since the specific effect depends on how listeners reason about why *p* must not be added to the CG.

Finally, in the present tense with a 1st person belief holder, *par* serves a reminding function; (33)—repeated from (16)—suggests that the addressee should already know that it is cold out.

- (33) I see a friend heading outside in a t-shirt and shorts, even though it’s the middle of winter. I want to remind them that it’s way too cold for that kind of outfit! I say:
 a-*par*-e kartit ra.
 1SG-think-IPFV cold today
 ‘Hang on, it’s cold today.’ (Lit: ‘I think that it’s cold today.’)

The pragmatic reasoning here differs from that seen in the previous contexts for two reasons: 1) the competition is between the *par* statement and the bare proposition *p* (rather than the belief report with the neutral belief verb *pwaat*), and 2) listeners make different assumptions about a speaker’s currently held beliefs. More specifically, listeners make at least the assumptions in (34) upon hearing (33).

- (34) Upon hearing (33), listeners assume that:
- a. The speaker is being cooperative (Grice 1989).
 - b. The speaker thinks that their currently held beliefs are true.
 - c. If it is cold, the speaker should not object to *p* being in the CG.

Use of *par* over the bare proposition *p* indicates that *p* is not to be added to the CG; in this way, *par*’s use is directly at odds with assertion of the bare proposition *p*, which is a proposal to add *p* to the CG. Listeners then reason about why *p* must not be added to the CG. Unlike previously, the

¹²Another possible reason to use *par* has to do with the type of evidence for a reported belief. When a speaker considers a belief holder’s evidence to be weak, *par* statements are felicitous. This use is mainly attested for one speaker, which is why I do not include it in the main text, but the effect lines up with the facts reported here, which hold across speakers. However, determining what exactly constitutes weak evidence is a question for future research, since it does not align neatly with evidential scales like those proposed by Willett (1988). For instance, if a speaker considers indirect evidence or hearsay to be sound, *par* cannot be used, while direct evidence that the speaker deems faulty in some way can license *par*. I leave exploring the link between evidence source and *par* to future work, but highlight it as an interesting further direction.

reason for blocking the inference from x thinks p to p cannot be that p is known to be false or that the speaker is biased against p , given the assumption in (34b); if the speaker knows or suspects p to be false, they would not continue to believe p in the present moment. Instead, listeners reason that the speaker must not want p to be added to the CG for another reason—namely because it is already *in* the CG, in which case adding it would be trivial and at odds with general conversational principles like informativity (i.e. do not say known things; Büring 2003:517).¹³ In this way, *par*'s reminding function falls out of the same semantics that derives its negative bias in sentences with non-1st person belief holders or past tense. This seemingly very different function is a natural consequence of how listeners reason about the relationship that speakers have with their present beliefs.

Yet recall from §2.2 that *par*'s reminding function is restricted to cases with 1st person belief holders. I capture this restriction by proposing that different kinds of pragmatic reasoning are preferred over others depending on how in line they are with the primary goal of conversation, which I assume to be shrinking the context set by adding truthful propositions to the CG, so that interlocutors can determine which possible world they are in. When faced with a *par* statement, listeners can reason in two different ways about why p must not be added to the CG (35).

- (35) After utterance of a *par* statement, p must not be added to the CG because:
- a. p is false or unlikely to be true, so adding it would contribute falsely to the CG (negative bias function), or
 - b. p is already in the CG, so adding it would be trivial (reminding function).

With a 1st person belief holder, only the pragmatic reasoning in (35b) is possible, since individuals do not maintain beliefs that they currently know to be false. This explains why *par* has only a reminding function in these contexts. Yet with a non-1st person belief holder, both types of reasoning should, in principle, be possible.

To rule out the pragmatic reasoning in (35b) with non-1st person belief holders, I propose that listeners have a general preference for the reasoning in (35a) whenever it is possible because it more directly serves the primary goal of conversation. In order to shrink the context set and determine which possible world interlocutors are in, it is essential that truthful information be added to the CG *and* that false or unjustified information be kept out of the CG. The use of a *par* statement can do exactly this: it can prevent the addition of a false or unjustified proposition to the CG. In this way, the pragmatic reasoning that underlies *par*'s negative bias function contributes straightforwardly to the primary goal of conversation. By contrast, *par*'s reminding function is useful in a conversation, but does not serve the primary goal of conversation as directly; while it is useful to avoid trivial CG update, it is not as essential to the development of a conversation as avoiding false CG update. In this way, the assumption that listeners prefer pragmatic reasoning that serves the primary goal of conversation allows us to understand why

¹³While I do not claim that trivial CG update is impossible (see e.g. Crone 2017), I suggest that interlocutors generally respect informativity in a conversation. This assumption means that listeners can apply the type of pragmatic reasoning outlined above to understand why a speaker would explicitly block the possibility of re-adding p to the CG. A speaker's choice to rule out this redundant conversational move leads to the reminding inference seen in Kipsigis.

par's reminding function only comes about as a last resort when its negative bias function is necessarily ruled out.

To conclude this section, I provide evidence that the inferences triggered by *par* are conversational implicatures. Support for this analysis comes from the fact that these effects can be reinforced without redundancy and are cancellable—two characteristics of conversational implicature (Hirschberg 1985; Grice 1989; Potts 2014). For instance, in contexts where *p* is known to be false, speakers can reinforce the falsity of *p* without redundancy. These continuations are particularly natural if the speaker provides additional explanation for the false belief.

- (36) We all know that I'm perfectly healthy. But my mother thinks that I'm sick because I fooled her to skip school.
 Ø-**par**-e kaamεε-nyʊʊn aa-mnyon-i lakini maa-mnyon-i. Kaa-ng'al-e
 3-think-IPFV mother-my 1SG-be.sick-IPFV but NEG.1SG-be.sick-IPFV PST.1SG-lie-IPFV
 si maa-we sʊgʊl.
 so.that NEG.1SG-go school
 'My mother is **under the impression** that I'm sick, but I'm not sick. I was lying to not go to school.'

Par's other interpretive effects, like the unreliability of *x*, are also reinforceable, as seen in (37).

- (37) Arap Bett is very drunk and is acting confused. I don't know if Arap Ruto is here or not, but I have reason to doubt Bett's reliability.
 Ø-**par**-e Arap Bett ka-ko-it Arap Ruto lakini maa-pwaat-e kole
 3-think-IPFV son.of B. PST-3.PERF-arrive son.of R. but NEG.1SG-think-IPFV C
 ka-ko-it. Ø-poogit-i Arap Bett. Maa-yon-i che Ø-mwa-e.
 PST-3.PERF-arrive 3-be.drunk-IPFV son.of B. NEG.1SG-believe-IPFV REL.PL 3-say-IPFV
 'Arap Bett is **under the impression** that Arap Ruto has arrived, but I don't think that he has. Arap Bett is drunk. I don't believe what he says.'

The fact that these effects can be reinforced without redundancy suggests that they are not part of the asserted content of *par*, but instead arise as conversational implicature.

Par's interpretive effects are also cancellable, though cancellation requires more contextual support than reinforcement. Continuations like that in (38) are not contradictory, but they are marked discourse moves. Use of *par* in the first sentence suggests that Lydia is not rich, while the follow-up states that she is, in fact, rich but not for the reason that people think. In this way, cancellation after use of *par* typically serves some rhetorical purpose.

- (38) My friend Lydia invented a famous app, and people think she made millions from it. Actually, although my friend never made any money from her app, she inherited money from her parents.
 Ø-**par**-e piik mogoriot Lydia ako εεn iman ko mogoriot. Lakini moo mogoriot
 3-think-IPFV people rich.person L. and in truth 3 rich.person but NEG rich.person

kiin ko-alda ap. Kii-goo-chi siigiik-chik rabınrık.
 when 3-sell app PST-give-APPL parents-3.POSS money
 ‘People are under the impression that Lydia’s rich and she actually is. But she’s not rich
 from selling the app. Her parents gave her the money.’

Notably, negatively biased belief verbs in other languages show a similar pattern in terms of cancellation difficulty. The interpretive effects of Spanish *creerse* cannot be cancelled (Anvari et al. 2019:ex. 10), while those of Mandarin *yǐwéi* are more difficult to cancel than to reinforce (Glass to appear:ex. 27-28). In fact, these different behaviors between reinforcement and cancellation align with recent work on the typology of conversational implicatures, which finds that they are universally reinforceable, though there is more variation in whether or not they are cancellable. In particular, manner and quantity implicatures can always be reinforced, but they can only be cancelled when their content does not address the Question Under Discussion (Rett 2020). In this way, the behaviors discussed here provide evidence that the inferences triggered by use of *par* over the neutral alternative *pwaat* are conversational implicatures.

3.3 The grammatical status of 1SG *apare*

Because *par*’s reminding function is so different from its negative bias use and is restricted to 1st person belief holders, it is worth considering the possibility that *apare* is a distinct lexical item from the other forms of *par*. For instance, perhaps *apare* is a discourse particle akin to German *ja* or *doch*, which is only related to the negatively biased use of *par* historically. Yet even if this were the case, the analysis of *par* would have to be compatible with a semantic change pathway that derives a reminding function from a negative bias one, since *apare* is linked to *par* at least morphophonologically. Existing analyses of negative bias do not allow for this possibility. Contrafactive (Anvari et al. 2019) and postsuppositional (Glass to appear) accounts require $\neg p$ to be in the input CG or for the output CG to be compatible with $\neg p$. These requirements preclude the development of *par*’s reminding function, since it would never be licensed with a 1st person belief holder in the first place. By contrast, the analysis here provides a synchronic derivation for *par*’s reminding function (if it is a verb) or lays the groundwork for the diachronic development of this function (if it is a discourse particle). In both cases, *par*’s instruction that *p* not be added to the CG allows for a 1st person belief holder and leads to a reminding function via pragmatic reasoning.

Furthermore, there is preliminary evidence to suggest that *apare* is synchronically a verb. First, it contains decomposable verbal morphology, including subject agreement and aspect morphology, and surfaces clause-initially, which is the only grammatical position for the verb in Kipsigis (Bossi & Diercks 2019). Second, Kipsigis is unlike languages like German in that it does not generally have discourse particles. To my knowledge, there are no discourse particles in Kipsigis. While this is not proof that such elements do not exist, it makes for a marked contrast with languages like German, which have a large inventory of these particles. Given this, if *apare* were a discourse particle, it would be a member of a very small class of elements. Third, *apare* can occur with verbal intensifiers like *ime*. This element can surface in a number of postverbal positions—even those that are quite distant from the intensified verb (39). Crucially, *ime* can combine with *apare* on its reminding use, as seen in (40); here, even though *ime* is not adjacent to

apare, it highlights the fact that the addressee should already know *p*, as suggested by consultant comments and the use of ‘clearly’ in the translation.

- (39) ma-mach-e {INE} ko-wa sʊgʊl {INE} Kiproono {INE}.
 NEG-want-IPFV IINE 3.SBJV-go.SG school IINE K. IINE
 ‘Kiproono really doesn’t want to go to school.’

- (40) We’re walking through the garden and see animal tracks. The steps are clearly those of a cow: they’re the shape of cow hooves and they’re spaced out how a cow’s hooves would be. Yet I ask you what animal it was. You reply:

α-par-e tɛɛta INE.

1SG-think-IPFV COW IINE

‘This is **clearly** a cow.’ (Lit: ‘I definitely think that this is a cow.’)

Together, these facts suggest that *apare* is a verb. However, even if this conclusion turns out to be incorrect and *apare* is, in fact, a discourse particle, the analysis here provides a better foundation for deriving its reminding function than other analyses of negatively biased belief verbs.

3.4 Against a syntactic alternative

Although this paper focuses on the interpretive differences between belief reports with *pwaat* and *par*, these two constructions also involve slightly different syntactic complementation strategies. In this section, I describe the syntactic differences between *pwaat* and *par* statements and show that they cannot be responsible for the interpretive differences described in §2.

As seen throughout the paper, complementation with *pwaat* requires the element *kole* (41a), while *par* cannot occur with *kole* (41b).

- (41) a. i-pwaat-e kaamɛɛ-nyʊʊn *(kole) aa-mnyon-i.
 3-think-IPFV mother-1SG.POSS C 1SG-be.sick-IPFV
 ‘My mother thinks that I’m sick.’
 b. ∅-par-e kaamɛɛ-nyʊʊn (*kole) aa-mnyon-i.
 3-think-IPFV mother-1SG.POSS C 1SG-be.sick-IPFV
 ‘My mother thinks that I’m sick.’

Some other complement-taking verbs that require *kole* include: *ngen* ‘to know’, *mwa* ‘to say’, *ruaatit* ‘to dream’, and *nereech* ‘to be angry’. In this way, verbs that use the *kole* embedding strategy come from a variety of lexical classes and include factive and non-factive verbs.

Early analysis treats *kole* as a complementizer (Diercks & Rao 2019), hence its glossing to this point in the paper. However, recent work by Driemel & Kouneli (2022) argues that it is actually the lexical verb *le* ‘say’ with the 3rd person subjunctive agreement prefix *ko-*. For this reason, I refer to this element as “complementizer-like *le*” in this section. Evidence for this analysis comes from the unique agreement behaviors of complementizer-like *le*; in particular, it shows prefixal agreement with whichever matrix argument is the logophoric center of the belief report. In this

way, it often agrees with the matrix subject, though it can also agree with a matrix object when it qualifies as the source of the information reported in the embedded clause (42).¹⁴

- (42) ka-i-kas-ε:n Kiplàngàt {kò-lé / ì-lé} kà-∅-tʃɔ:r Kibê:t rabɪ:nɪk.
 PST-2SG-hear-APPL K. 3-LE 2SG-LE PST-3-steal K. money
 ‘You heard from Kiplangat that Kibet stole the money.’ (Driemel & Kouneli 2022:ex. 35)

Driemel & Kouneli argue that these agreement behaviors arise because *le* is an embedded lexical verb meaning ‘say’ that agrees with its subject—a null logophoric *pro* that is co-referential with the matrix argument controlling agreement on *le*. In this way, sentences like (42) actually involve two instances of embedding: the matrix verb *kas* ‘hear’ embeds a subjunctive TP containing *le* and a logophoric *pro* subject, which then embeds an indicative CP containing the embedded verb *tʃɔ:r* ‘steal’. (43) schematizes this state of affairs; the most crucial observation is that sentences like (42) are actually *trichlausal* rather than *bichlausal*.

- (43) [CP matrix verb_{ind} [TP logophoric *pro* ... le_{subjv} [CP embedded verb_{ind}]]]

Driemel & Kouneli then extend their morphosyntactic analysis of *le* to its semantics, suggesting that embedded clauses headed by *le* are sets of contentful saying events. In this way, there are two key differences between statements with *pwaat* vs. *par*: 1) *pwaat* statements have saying semantics that are absent in *par* statements, and 2) *pwaat* statements contain a subjunctive TP that is absent in *par* statements. In the remainder of this section, I consider these differences and show that they cannot be responsible for the interpretive effects described here.

First, there are reasons to doubt that complementizer-like *le* contributes the same saying semantics that *le* has when used as a matrix attitude verb. For instance, complementizer-like *le* is used in dream reports (44), which do not typically involve speaking, and appears in belief reports with attitude holders who are incapable of speech, like animals (45).

- (44) koo-a-rwaatit *(ko-le) koo-∅-tien Kibeet.
 PST-1SG-dream 3-say PST-3-dance K.
 ‘I dreamed that Kibet danced.’
- (45) i-pwaat-e ng’ookta *(ko-le) aanyɪn peenda.
 3-think-IPFV dog 3-say sweet meat
 ‘The dog thinks that meat tastes good.’

The obligatory use of complementizer-like *le* in (44) - (45) suggests that, if it has verbal semantics, they must be highly bleached, rather than those found with matrix attitude verb *le*. Yet beyond this fact, and most crucially, saying semantics alone would not derive the interpretive effects described here; there is no reason why the absence of saying semantics in *par* statements would suggest that the reported belief is false or that the belief holder is unreliable, for instance.

¹⁴Complementizer-like *le* can also display other morphology indicative of its verbal status, including: suffixal agreement with indirect objects of speech verbs, the applicative morpheme *-chi*, and the reflexive particle *-kεε*. See Driemel & Kouneli (2022) for more discussion of these syntactic patterns.

The second difference between *pwaat* and *par*—specifically mood selection of the verbs—seems more promising, since mood selection often correlates with the level of certainty indicated by an attitude verb. The subjunctive is often used cross-linguistically with verbs of doubting (Siegel 2009), in which case one might expect *par* to select for this mood. However, the Kipsigis pattern is the opposite; *par* selects for an indicative clause, while *pwaat* selects for a subjunctive clause with *le*, which then embeds an indicative clause containing the reported belief. Evidence that *par* embeds an indicative clause comes from the fact that the full range of tense distinctions persists in these embedded clauses, even though tense is lost in the subjunctive. (46) illustrates this point with the three past tenses found in Kipsigis: recent, yesterday, and distant past.

- (46) We know that no one saw Chepkoech {earlier today / yesterday / last year}, but Kiprono’s confused and mistakenly thinks that I saw her at these various times. I say:
- a. \emptyset -**par**-e Kiproono ka-a-geer Chepkoech.
3-think-IPFV K. PST.1SG-see C.
‘Kiproono is **under the impression** that I saw Chepkoech (recently).’
 - b. \emptyset -**par**-e Kiproono koo-a-geer Chepkoech.
3-think-IPFV K. PST-1SG-see C.
‘Kiproono is **under the impression** that I saw Chepkoech (yesterday).’
 - c. \emptyset -**par**-e Kiproono kii-a-geer Chepkoech.
3-think-IPFV K. PST-1SG-see C.
‘Kiproono is **under the impression** that I saw Chepkoech (long ago).’

This selectional property of *par* suggests that its interpretive effects are not due to the mood of the embedded clause; selection of the indicative should not contribute any negative bias, nor should the absence of the subjunctive. Furthermore, beliefs reported with both *pwaat* and *par* ultimately surface in the indicative, at least after embedding under complementizer-like *le* for *pwaat* statements. This parallelism makes it even more unlikely that *par*’s negative bias arises due to the mood of the embedded clause.

Together, these facts suggest that the syntactic differences between *pwaat* and *par* statements cannot be responsible for the interpretive effects described here. Instead, I argue that they arise due to *par*’s not-at-issue instruction for CG management: *p* is not to be added to the CG. The specific inferences associated with *par* then arise as conversational implicatures based on how listeners reason about why *p* must not be added to the CG.

4 Implications for theories of CG management

Recall from §1 the distinction between CG content, which is the truth conditional information contained *within* the CG, and CG management, which concerns how the CG content should *develop* over the course of a conversation (Krifka 2008). The account of *par* offered here falls squarely into the realm of CG management; *par*’s not-at-issue instruction dictates exactly how the CG content is—or rather, is *not*—to change upon utterance of a *par* statement. In this way, CG management is baked into the lexical meaning of *par*, rather than derived by placing requirements on CG content.

Yet by contrast, many analyses of CG management capture this function in terms of CG content, rather than through a direct CG management instruction like that proposed for *par*. For instance, as seen in §3.1, existing analyses of negatively biased belief verbs model their CG management effects by imposing requirements on the CG content before or after utterance of the negatively biased belief verb. However, these sorts of analyses cannot capture the Kipsigis pattern, since there is no unified filter that can apply to the input or output CG to characterize the full range of contexts where *par* statements are felicitous. In this section, I summarize analyses of some other elements that do a similar type of CG management to highlight the fact that all of these accounts rely on these same types of filters on CG content. In this way, Kipsigis *par* is unique, as it must be analyzed via a direct CG management instruction. This novel pattern, then, suggests that CG management can itself be lexicalized, just like constraints on CG content.

The two case studies that I consider here come from German, which has a large inventory of lexical items that perform CG management and that have received significant attention in the literature. In particular, I focus on the discourse particles *ja* and *doch* and a type of accented negation, which interacts with *doch*. First, let us consider *ja* and *doch*. As mentioned in §3.1, both *ja* and *doch* instruct the addressee to retrieve from the CG a proposition that is not currently being considered (Döring 2016). In (47), use of *ja* signals that the speaker assumes that *p* is already known to the addressee or that it is at least uncontroversial.

(47) *German* (Döring 2016:ex. 39)

Ich würde Maria als Sprecherin vorschlagen. Sie hat ja gesagt, sie würde die Aufgabe
 I would M. as speaker recommend she has JA said she would the task
 gern übernehmen.
 like to take over
 ‘I would recommend Maria as the speaker. She said she would like to take over this task.’
 where $p = \{w : \text{Maria said in } w \text{ that she would like to take over this task}\}$

Doch has a similar use to *ja*, but additionally suggests that the current proposition is at odds with something conveyed previously (Döring 2016). This contrastive reminding function can be seen in (48), where B’s use of *doch* suggests that A should know *p*, even though A has ostensibly forgotten this fact given their initial question.

(48) *German* (Döring 2016:ex. 40)

A: Warum kommst du morgen nicht ins Büro?
 why come you tomorrow not to.the office
 ‘Why won’t you come to the office tomorrow?’
 B: Bei mir sind **doch** morgen Handwerker in der Wohnung.
 at me are DOCH tomorrow workers in the apartment
 ‘There are builders in my apartment tomorrow.’
 where $p = \{w : \text{There are builders in the speaker’s apartment tomorrow in } w\}$

In terms of CG management, then, *ja* and *doch* indicate that uttering statements like (47) - (48) does not have the primary goal of updating the CG, since *p* is already in the CG or evident in the utterance context (Grosz 2016).

There is a wide range of analyses of both *ja* and *doch*; I do not summarize them all here (see Grosz 2016 for an overview of *ja*), nor do I argue for one analysis over another. Instead, I highlight that these different accounts share the central intuition that these discourse particles are only felicitous in contexts where *p* is already in the CG, regardless of how this requirement is formalized (e.g. as a presupposition; Kratzer 1999; Zimmermann 2011; Repp 2013 vs. expressive content; Kratzer 1999; Gutzmann 2012 vs. an illusionary operator; Thurmair 1989; Jacobs 1991; Lindner 1991; Waltereit 2001; Karagjosova 2004; Coniglio 2011). Repp (2013), for instance, offers a relatively standard analysis of *ja* and *doch*, formalized in (49) - (50).

- (49) $\llbracket ja \rrbracket = \lambda p_{\langle s,t \rangle} . p$ (Repp 2013:ex. 20)
 Discourse conditions for utterance u_n with the meaning $\llbracket retrieve \rrbracket(p)$:
 a. CG entails or implicates p
 b. u_{n-1} does not entail, presuppose, or implicate p .
- (50) $\llbracket doch \rrbracket = \lambda p_{\langle s,t \rangle} . p$ (Repp 2013:ex. 21)
 Discourse conditions for utterance u_n with the meaning $\llbracket doch \rrbracket(p)$:
 a. CG entails or implicates p
 b. u_{n-1} entails, presupposes, or implicates $\neg p$.

On this account, *ja* and *doch* are truth conditionally vacuous presupposition triggers. The a. felicity conditions boil down to the requirement that p must be in the CG for *ja* and *doch* to be licensed. *Doch*, then, comes with the additional felicity condition that the previous utterance suggests $\neg p$, while the utterance preceding the *ja* statement is neutral in this respect.¹⁵ In this way, *ja* and *doch*'s CG management functions are derived via requirements on the CG content before utterance of these particles.

Now let us turn to accented negation in German and its interaction with modal verbs and particles like *doch*. The German modal verb *können* 'can' typically scopes under negation, though it is possible for *können* to scope over negation when negation is accented; as seen in (51), when *nicht* 'not' is accented, it is able to take either wide or narrow scope, though the narrow scope interpretation is more attainable with the addition of the particle *auch* 'also'.

- (51) *German* (Repp 2013:ex. 3-4)
 Response to *Paul kann ins Schwimmbad gegangen sein* 'Paul can have gone to the pool':
 a. Paul kann NICHT ins Schwimmbad gegangen sein.
 Paul can not to.the pool gone be
 'Paul CANNOT have gone to the pool.' $\neg > \diamond$
 b. Paul kann auch NICHT ins Schwimmbad gegangen sein.
 Paul can also not to.the pool gone be
 'It is (also) possible that Paul has NOT gone to the pool.' $\diamond > \neg$

¹⁵Repp (2013) later complicates the denotation of *doch* (see Repp 2013:ex. 28). This complication does not directly relate to the point being made here, so I ignore it for simplicity and refer the reader to the original work for further discussion.

However, the addition of the modal particle *doch*, whose meaning Repp paraphrases as ‘why are you not considering p , you should know that p ’, rules out the wide scope reading of accented *nicht* (52). The narrow scope reading, by contrast, remains available with or without *auch*.

- (52) *German* (Repp 2013:ex. 7)
 Response to *Paul muss ins Schwimmbad gegangen sein* ‘Paul must have gone to the pool’:
 Paul kann doch (auch) nicht ins Schwimmbad gegangen sein.
 Paul can DOCH (also) not to.the pool gone be
 ‘It is also possible that Paul has NOT gone to the pool, why are you not considering this, you should know.’ *¬ > ◇, ^{ok}◇ > ¬

In this way, accented *nicht* cannot take wide scope with respect to the modal verb *können* if and only if the modal particle *doch* is also present.

In order to account for the interaction between accented negation and *doch*, Repp argues that the wide scope negation seen in sentences like (51a) and ruled out in sentences like (52) is the realization of the **FALSUM** operator. This operator requires the proposition that it scopes over to not be in the CG, as formalized in (53).¹⁶

- (53) $[[\text{FALSUM}]] = \lambda p_{(s,t)} \lambda w. \forall w' \in \text{Epi}_x(w) [\forall w'' \in \text{Conv}_x(w') [p \notin \text{CG}_{w''}]]$
 In all the worlds w' that conform to x 's knowledge in w it holds that in all the worlds w'' that conform to the conversational goals of x in w' (according to the Maxims of Quantity and Quality), proposition p is not in the CG. (Repp 2013:ex. 10)

The **FALSUM** operator is, then, incompatible with *doch*, since these two elements impose conflicting requirements on the CG; **FALSUM** requires that p not be in the CG, while *doch* instructs the addressee to retrieve p from the CG. Crucially, though, the CG management functions of both of these elements are modeled as requirements on CG content. Although **FALSUM** and *doch* serve two very different purposes, they both impose requirements on the content of the CG—in one case, that a proposition be in the CG and in another case, that a proposition not be in the CG.

These accounts of the CG management functions of *ja*, *doch*, and accented *nicht* are reminiscent of existing accounts of negatively biased belief verbs: they require the CG content to look a particular way for the CG managing element to be licensed. This approach parallels existing analyses of negatively biased belief verbs, which generally require the input CG to contain $\neg p$ (Anvari et al. 2019) or the output CG to be compatible with $\neg p$ (Glass to appear). However, it differs crucially from the case of Kipsigis *par*, which cannot be analyzed using filters on CG content. As seen in §3.1, there is no single characterization of the input or output CG content that captures the full range of contexts where *par* is possible; in this way, it is only possible to analyze *par* in terms of a direct instruction for CG management. The Kipsigis data show that lexical items involved in CG management must be able to directly encode restrictions on CG operations, rather than simply checking for membership of a particular proposition in the CG,

¹⁶Once again, Repp (2013) ultimately modifies the denotation of **FALSUM** to extend more directly to its use in questions (see Repp 2013:ex. 16). As previously, these modifications are not relevant to the current discussion; in all versions of the denotation of **FALSUM**, it requires that p not be in the CG.

as is standard in analyses of CG management. While these filters on CG content are suited to capture many cases of CG management (e.g. many negatively biased belief verbs, *ja*, *doch*, *FALSUM*), the novel empirical pattern seen with Kipsigis *par*—that it has both a negative bias and a reminding function—necessitates the addition of constraints on CG operations to the theory of CG management.

5 Conclusion

This paper describes and analyzes the belief verb *par* ‘think’ in Kipsigis, which serves two seemingly contradictory functions: with a non-1st person belief holder, *par* suggests that the reported belief is false or likely to be false, while with a 1st person belief holder, *par* reminds the addressee that the reported belief is true. While these functions are familiar on their own (see e.g. other negatively biased belief verbs like Spanish *creerse* and Mandarin *yǐwéi*, and discourse particles like German *ja* and *doch*), Kipsigis *par* is unique in that a single lexical item can serve both functions depending on the context. To capture these different uses of *par*, I propose that it comes with a not-at-issue instruction for CG management: that *p* not be added to the CG. In competition with the neutral belief verb *pwaat* or the bare proposition *p*, context-sensitive pragmatic reasoning derives the specific interpretive effects seen with *par*. In developing this analysis, I show that *par* cannot be modeled using filters on input or output CG content, as is standard in analyses of CG management. Instead, it must be analyzed through a direct constraint on CG operations, which shows that CG management can itself be lexicalized just like constraints on CG content.

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