

COMMUNICATING TESTIMONIAL COMMITMENT

ALEJANDRO VESGA

Center for Human Values (UCHV), Princeton University

I argue for the Cooperative Warrant Thesis (CWT), according to which the determinants of testimonial contents in communication are given by the practical requirements of cooperative action. This thesis distances itself from conventionalist views, according to which testimony must be strictly bounded by conventions of speech. CWT proves explanatorily better than conventionalism on several accounts. It offers a principled and accurate criterion to distinguish between testimonial and non-testimonial communication. In being goal-sensitive, this criterion captures the role of weak and robust cooperation in determining the contents to which speakers testify or fail to testify. And, finally, it yields a principled explanation of why testimony entails the epistemic commitments that distinguish it as an epistemic source.

1. Overview

Testimony, understood in the epistemologist's sense, is a ubiquitous epistemic source. Much of what we know (that Mars has two moons, that the bar on Green Street has stout on tap, that I have two kidneys) we know from accepting the testimony of others. Yet, although there is a plethora of ways to transmit information through speech, not all of them count as testimony. A superintendent who utters "I gave him a hundred thousand reasons to retire" may somehow communicate (suggest, insinuate) to his audience that he bribed the police commissioner. Intuitively, however, he has not testified to bribing anyone.

Explaining why the superintendent's utterance does not amount to testimony concerns the often neglected *communicative dimension* of testimony. To transmit testimonial knowledge about p , speakers must not only be in a privileged epistemic position regarding p , but they must also convey p appropriately. Independently of what our superintendent knows about the bribe, his utterance

Contact: Alejandro Vesga <ajv79@cornell.edu>

does not comply with the communicative conditions that fix testimonial contents. One may ask, then, what are the conditions that distinguish testimonial from non-testimonial speech.

My main contention is that the communicative dimension of testimony is best captured by appealing to the non-language-specific dynamics of cooperative action. This goes against the popular idea that that testimony must be strictly constrained by linguistic conventions. Our superintendent, the conventionalist story goes, did not testify because his communicated content goes beyond the conventional content of his uttered sentence. This view, however, is misguided. It fails to capture genuine testimonial communication that goes beyond the conventional features of our utterances.

We do better, I argue, by modelling testimony as the act of cooperatively offering information. Given a speaker's cooperative commitments, her audience is warranted in interpreting some of her actions as serving the cooperative role of informing about the truth of a proposition (i.e., as testimonial utterances.) Crucially, this role can be fulfilled by conventional and non-conventional communicative strategies. Ultimately, then, our superintendent does not testify to his bribery because his utterance does not fulfill the appropriate cooperative role in conversation. Call this view the Cooperative Warrant Thesis (CWT).

CWT yields a better picture of the epistemic grounds that warrant the interpretation of testimonial contents. First, it systematically captures a more accurate range of communicative strategies that can fulfill a testimonial function while excluding non-testimonial speech. Second, being goal sensitive, this view captures the modulating effects of weak and robust cooperation on testimonial contents. What communicative strategies count as testimony can differ between a conversation with an old-time friend and a conversation with an adversarial crime suspect. This modulation effect, so far overlooked in the literature on testimony, accommodates the initial appeal of conventionalist intuitions. And third, as opposed to conventionalism, CWT provides a principled explanation of why our testimonial practices involve epistemic commitments.

In the next section, I argue that testimony can be pragmatically determined in ways that conventionalism cannot trace. In §3, I characterize a distinctive kind of publicly available interpretive warrant offered by cooperative action in general. In §4, I explain how this cooperative warrant characterizes testimonial contents and how it applies to cases where testimony does not seem to involve cooperation. In §5, I turn to explain why some kinds of declarative communication do not count as testimony and how the threshold between testimonial and non-testimonial communication can shift with a conversation's degree of cooperation. In §6 I offer a principled explanation of why the practical normativity of cooperation, and not convention, grounds the epistemic commitments that characterize testimony.

2. The Dynamics of Testimony

Testimony is a second-personal epistemic practice. Unlike speculating or guessing speakers, testifying speakers epistemically commit in a stronger, distinctive way to a communicated content.¹ When a speaker testifies to her audience, she commits to having the appropriate epistemic privilege with respect to the content of her testimony.² Among other features, the epistemic commitment that characterizes testimony entitles audiences to hold testifying speakers accountable for the epistemic merits of what they say. When speakers offer defective testimony, audiences are at the very least entitled to ask speakers for the reasons they had to testify and reproach them if these reasons are not excusing.

For our purposes, then, the relevant explanandum is that some means of communication carry the epistemic commitments that characterize testimony and others do not.³ Consider our superintendent. It would seem that he has not testified that he bribed the police commissioner precisely because he cannot be pinned down for having committed to that content. No matter what he knows about his bribe, he seems able to validly deflect claims of accountability for having communicated that he bribed the commissioner ("I never told you I bribed him!"). In contrast, the interpretation of testimonial contents must be warranted in a way that blocks this kind of deflection. Hence, an account of the communicative dimension of testimony should explain why testimonial communication involves interpretive warrants that epistemically secure communicated contents in a way the superintendent's speech act does not.

At first glance, it may seem natural to appeal to the fact that what the superintendent communicates simply goes beyond the semantic features of his utterance. Hence, some may suggest, testimonial contents must be semantically constrained. Elizabeth Fricker (2012) and Sanford Goldberg (2007; 2008)

1. Although there are crucial differences in the role this fact plays in a full account of testimony, it is widely accepted that testimony constitutively involves practices of interpersonal commitment. See, for instance, Adler (2002), Coady (2000), Cohen (1982), Fricker (1994; 2006; 2012), Goldberg (2007; 2012), McMyler (2011), Moran (2018; 2013).

2. What kind of epistemic privilege testifying speakers must have has been widely debated in the literature—for instance, certainty (Stanley 2008), knowledge (Williamson 1996), justified belief (Kvanvig 2009; Lackey 2008; McKinnon 2015), or rational belief (Douven 2006). I remain neutral about this aspect of the epistemic dimension of testimony.

3. My focus on commitment differentiates the question I am asking from Peet's (2019) question on what it takes for communication to be knowledge-yielding. While Peet is concerned with what it takes for communication to yield knowledge, I am asking what it takes for a speech act to count as testimony and epistemically commit speakers to a content—individually of whether knowledge has been transmitted. For all we have said, there can be non-testimonial, knowledge-yielding communication, and testimonial non-knowledge-yielding communication.

have independently defended such a view.⁴ Testimonial contents, they argue, strictly trace the syntactic-semantic features of our uttered sentences and allow only for minimal supplementation of context-sensitive expressions needed to arrive at a truth-evaluative proposition. Their views allow, for instance, fixing the referent of pronouns like ‘she’ to refer to Jane Smith and disambiguating terms like ‘bank’ to refer to the financial institution. Nevertheless, any further enrichments or alterations—any “logical, nomological, or conversational implication” (Fricker 2012: 97)—must be excluded from the realm of testimony. For ease of exposition, let us call the resulting contents the literal contents of our words.⁵

There is *prima facie* good reason to accept this view. Under a widespread construal, non-literal enrichments are determined by speaker intention.⁶ However, agents have special epistemic authority over their own mental states. Arguably, then, agents are able to validly deny having a given intention without much space for others to show evidence that they indeed had that intention. In contrast, literal contents are determined by public conventions of speech shared by a linguistic community and can be thus appealed by audiences in holding speakers accountable. Insofar we are interested in characterizing an epistemic practice that grounds epistemic commitments against which speakers can be held accountable, semantic convention seems to be a safe choice.

However, literalism about testimony is excessively restrictive. Pragmatic enrichment is just too pervasive in our everyday communicative practices. Picture a familiar scenario:

Charcoal: María and Gabriel are planning a barbecue. It is clear that they have everything they need but charcoal. Both know there is only time for one trip to the store. Gabriel offers to go, but he is from out of town, so María says:

- (1) There is a store down the road.

4. Although without developing an argument for it, other philosophers explicitly endorse this view, see Burge (2013: 248, 355–56) and Owens (2017: 215). Other philosophers seem to implicitly endorse it (MacFarlane 2011).

5. Literal contents can be thought of as close to what has been called minimal contents (Borg 2010; 2019; Cappelen & Lepore 2005). Nonetheless, whether there are such contents is famously a contentious issue. See Bach (1997; 2005), Carston (1999), Korta and Perry (2006), Recanati (2003), Saul (2012), Stanley and Szabó (2000), Stokke and Schoubye (2016).

6. See, for instance, Schiffer (2003), Bach and Harnish (1979), Neale (2004), Harris (2019). Arguably, these authors have their own answers to anti-intentionalist complaints. Below I propose a solution that focuses on the epistemic warrants provided by cooperative reasoning, rather than speaker intention. See n. 16.

Although it goes beyond the literal content of (1), María is arguably committing herself to there being an open store down the road where Gabriel can buy charcoal. As an initial indication, notice how the following two possible responses from Gabriel would be redundant (as indicated by the hashtag):

- (2) #Is it open?
- (3) #Do they sell charcoal?

These questions are redundant insofar as they ignore the role (1) has in conversation. If María's utterance is to make sense as an input in the conversation is because the store is open, and it sells charcoal. To use a widely accepted framework, the fact that these questions are redundant strongly suggests that this information has entered the publicly available conversational record (cf. Stalnaker 2014; Roberts 2012; 2018).

Further, there is no need to appeal to María's private intentions to discern her commitment. That the store is open and it sells charcoal follows from María and Gabriel's common context, the fact Gabriel offered to go to the store, and, crucially, their avowed common interest in acquiring charcoal for their barbecue. If it turns out that the store is closed or that they do not sell charcoal, Gabriel can appeal to these public features of the conversation to hold María accountable. She cannot plausibly deny they were planning a barbecue or that Gabriel offered to go to the store.

Admittedly, it may be that María genuinely thought the store was open. What matters, however, is that her appropriate response to Gabriel's reproach should be epistemic, not communicative.⁷ She should excuse her commitment to inaccurate information ("I thought it was open"), rather than deny having committed to such information ("I never said it was open").⁸ Further, if there is indeed charcoal at the store, Gabriel forms the corresponding belief, and María is competent and reliable, Gabriel can gain knowledge from her utterance. If so, it is not clear why it should not count as testimonial knowledge.

It would seem, then, that María's commitment to the non-literal content of her utterance is determined by something beyond the literal content of her words and also independent from her mere private intention. Further, her commitment to her communicated content is fixed in a way that our super inten-

7. The specifics of the conversation may make it the case that the appropriate warrant to testify in this case is less strict than in other cases (cf. Goldberg 2015). Even so, the case suggests that María would be accountable for having the same warrant had she uttered, "there is an open store down the road, and it sells charcoal."

8. This is an important result. At least in this case, the fact that she can much later point out that the content she committed to was not semantically or logically entailed by the literal content of her words does not dissolve her epistemic commitments. Mere cancellability does not amount to plausible deniability. See Welker (1994) and Roberts (2012) for similar arguments.

dent's insinuation is not. In the next sections I present a view that make sense of these features. First, however, let me consider a possible conventionalist retort.

Semantic-syntactic conventions do not exhaust linguistic conventions. Many theorists model conventional meaning beyond the strict conditions Fricker and Goldberg have in mind.⁹ Grice, for instance, held that the causative reading of 'and' in utterances like "The Dow fell and investors panicked" owed to a convention beyond the literal meaning of these words. So, those wary of the restrictiveness of literalism but convinced by the power of convention may argue that testimony is bounded by a broader set of discursive conventions.

This move, however, will not go far. Shifts in context can modify testimonial commitments in ways that cannot be traced even broader discourse conventions. Picture a variant of the above scenario.

Charcoal*: Jane and Sam are planning a party. However, they disagree on what kind of party to host. While Jane wants to host a barbecue, Sam wants to host indoors. It is public to both that while either party requires food and drinks, a barbecue would require charcoal, and an indoor party would require decorations. There is only time for one trip to the store and Sam offers to go. Sam is from out of town, so Jane says:

- (4) There is a store down the road.

Notice how the commitments at stake shift. Take our test questions:

- (5) #Is it open?
- (6) Do they sell charcoal?

Given the scene, (5) is still redundant. Jane and Sam are committed to hosting a party, so (4) does commit Jane to the store being open. Yet, (6) is no longer redundant. Given Sam and Jane's disagreement on what kind of gathering to host, Sam is no longer entitled to interpret (4) as committing Jane to the fact that the store sells charcoal; even when both know that charcoal is required for a barbecue. That (6) is entirely appropriate, hence, suggests that the store selling charcoal has *not* publicly entered the conversational score and, therefore, that (4) does not carry the same commitments (1) did.

Conventions do not seem to be the relevant content-determining factor here. What determines the content to which Jane testifies is best explained by the instance-specific, pragmatic interaction of her utterance with the goals of

9. See, for instance, Lepore and Stone (2015a; 2015b), Abusch (2010), Van Der Sandt (1992), Asher and Lascarides (2005), Hobbs (1985).

the conversation and the information public to her and Sam. Lenient conventionalists may be tempted to suggest that the content of (4) is somehow guided by a conventional discursive (though non-semantic) relation that fixes the content to which Jane commits.¹⁰ This suggestion, however, is unwarranted. To prove useful, it must flesh out how the specific commitments entailed by Jane's utterance precisely trace practices accepted and deployed by her and Sam's linguistic community.¹¹ Until that suggestion is developed, the onus is still on the conventionalist.

Although the idea that conventions and commitment share a deep conceptual connection has been defended even outside the epistemology of testimony (Camp 2019; Kölbel 2011; Stainton 2016), it seems worthwhile exploring alternative answers. I now turn to such an account. In §6, I come back to the conceptual question and argue that appealing to the practical normativity of cooperative action, as opposed to convention, offers a better explanation of why testimony and commitment go together.

3. Cooperative Warrant

As our superintendent example shows, not every kind of communication yields testimonial commitments. Fricker and Goldberg are right in suggesting that the determinants of testimonial commitments must secure publicly warranted interpretations that can be appealed to when holding speakers accountable. We have seen, however, that conventions alone cannot account for this. We do better, I submit, by delving into the practical structure of non-language-specific cooperative action.

In a sense, this idea is not new. It is the key insight of Grice's (1967) Cooperative Principle, and lies at the core of a wide slew of theories of communication. What is distinctive of what I have to say is the insistence that cooperative reasoning itself offers the adequate *epistemic* grounds to secure testimonial contents. Crucially, at least when it comes to testimony, this means that we should abandon the classic idea that non-literal contents are directly determined by speaker intention. In this section I explain how cooperation in general offers a distinctive kind of publicly available warrant for action interpretation. In the next two sections, I turn to explain how this warrant accounts for the distinction between testimonial and non-testimonial communication.

Two (or more) agents have a *common goal* when each is individually committed to actualizing the same world-state. In turn, two agents have a *shared goal*

¹⁰ Lepore and Stone (2015b: 87) suggest this, citing Asher and Lascarides (2005). Nevertheless, they do not offer much detail about this proposal.

¹¹ See Simons (2018) for arguments against this suggestion.

when they are mutually committed to actualizing the same world-state. Adapting Bratman's (1992) classic example, all it takes for you and me to have the common goal of painting a house is that we are committed to having it painted. We share that goal when we commit to doing so together—when we commit to coordinate and interlock our actions in a mutually responsive way that leads to having the house painted.

Like individual goals, shared goals offer *inferential warrants*. Just as the individual intention to φ allows me to take for granted 'I will φ ' in deliberation, cooperating agents regularly appeal to the fact that they are committed to a shared goal in their reasoning about their and their counterpart's actions.¹² In other words, the fact that agents strive towards a shared goal can be used as a premise to infer the role of their counterpart's actions in achieving that goal. If you reach for the roller instead of the brush, the fact that we share the goal of painting the house warrants my belief that you will paint the house's walls.

Unlike individual goals, shared goals involve *publicity requirements*. Agents who commit to a shared goal commit (on pains of procedural failure) to act in ways that sufficiently disclose the roles of their actions as means to achieve their shared goal.¹³ Suppose we have jointly committed to painting the house and I stop and leave. I must make it clear that I am going for more paint to avoid you inferring I am no longer jointly committed to painting the house and this dissolving our shared goal—even if I indeed had the intention to go for more paint.

Together, publicity requirements and inferential warrants give rise to a distinct pattern of inference about action. In cooperation, beliefs can be substantiated by inferences that rationalize an action under the assumptions that cooperating agents are (i) in fact engaged in a shared goal; and, therefore, (ii) committed to disclosing the role their actions have as means towards said goal. Call the propositions that serve this explanatory role *cooperatively warranted* propositions.¹⁴

Consider an example before I offer a more detailed definition. Say that you and I have committed to painting the house, but I stop and go to a nearby shed. Say too that it is public to both of us that there is where we store the paint. Our commitment to cooperate yields a particular pattern of reasons to believe that I went to get more paint. For starters, this conclusion is warranted given our shared goal and the fact that it is public to us that there is more paint in the shed. Further, it is also warranted by the fact that I am committed to disclosing the role my actions have in achieving our goal. It is public to both of us that going for more paint is the best explanation of my action. Hence, were I not going

12. This has been defended in Bratman (1993; 2014), Cohen and Levesque (1988; 1991), Tuomela (2006).

13. Compare with Bratman (1993; 2014), Cohen and Perrault (1979), Gilbert (2009)

14. Note that this does not require positing ontologically distinct collective beliefs as in Gilbert and Priest (2013) to explain access to warranted beliefs about what is communicated.

to get more paint, I would have disclosed why else I am going there. The fact that I did not do so gives you further reason to believe that I am going for more paint. The proposition that I went to get more paint is therefore cooperatively warranted.¹⁵ The interaction between my commitment to our shared goal and my action makes it epistemically permissible for you to treat the proposition at stake as true.

We can now be more schematic. Given an agent X , an action φ , a proposition p , and an acknowledged shared goal SG,

Cooperative Warrant: When the truth of p is required by the best explanation(s) of how X 's φ -ing is a means towards SG, given information public to the agents engaged in SG, p is cooperatively warranted.

In the sense relevant here, the best explanations of an action provide the most stable, coherent, simple, and reliable account of how that action is a means to a shared end.¹⁶

Since cooperative warrants rely on the assumption that agents are committed to disclosing the role of their actions, the explanations that yield cooperatively warranted contents must be grounded on public information. If only you or I (and not both) knew that there is extra paint in the shed, your belief that I went for more paint would not be cooperatively warranted—even if you did arrive at it through other epistemically legitimate means.

It may well be that two or more explanations are equally fit to explain a cooperative action. If so, only the propositions required by the intersection of all the best explanations are cooperatively warranted. If we both know that there are brushes and paint in the shed, the proposition that I went for both or either of them (but not for one in particular) will be cooperatively warranted.

Importantly, cooperatively warranted propositions can differ from an agent's intention in action. Given my cooperative commitment to paint the house with you, the cooperative interpretation of taking the brush is that I aim to paint the house—even if for some reason I aim to paint my car. Of course, once I start painting the car, you can conclude that I am no longer committed to painting the house. That, however, does not mean that your original interpretation was not cooperatively warranted.

Lastly, doubts about cooperative commitments cast doubts on cooperatively warranted propositions. Your belief that I went for more paint will be put into doubt if you question whether we are in fact cooperating towards painting the

15. I say that a proposition, instead of a belief, is cooperatively warranted to mark that our cooperating generates reasons to believe the proposition that I went for paint even if you did not come to believe so.

16. Cf. Harman (1990), Bratman (2014), Cohen and Levesque (1991).

house. By the same token, sometimes, a cooperatively warranted belief will be defeated by evidence that one's counterpart has defected from the shared goal. If I go to the shed and do not come back, the cooperatively warranted belief will be defeated in favor of the non-cooperative explanation that I no longer share the goal of painting the house. Nevertheless, whenever it is evident that our counterparts are committed to a shared goal with us, cooperative warrants serve a vital role in explaining each other's actions in ways that enable complex forms of coordination.

4. Testimonial Communication

I have argued that the practical pressures involved in cooperation warrant a distinctive pattern action interpretation. I turn now to argue that this kind of warrant grounds the communicative dimension of testimony.¹⁷

When two (or more) agents share a goal, some actions must be cooperatively interpreted as aimed to actively inform about the truth of a proposition.¹⁸ Put otherwise, to make sense of some our counterpart's actions as aimed towards a shared goal, it is often required to interpret them as aimed to offer information relevant for achieving said goal. My uttering "There is more in the shed" can be interpreted as aiming to inform you that there is more paint in the shed because I embed it in the cooperative scheme of painting the house. That the purpose of my utterance is to share that information is clear because of my commitment to paint the house and my commitment to paint it *with* you. The reasons I have to act communicatively and the reasons you have to interpret my action as communicative hinge on the fact that we are jointly committed to a shared goal.

That said, we can understand certain signals as warranted by the cooperative features of a conversation. Given a proposition *p*, an utterance *U*, a speaker *S*, an audience *A*, and shared goal *SG* acknowledged by *S* and *A*:

Cooperatively Warranted Signal: When interpreting *U* as informing *p* is required by the best explanation(s) of how issuing *U* is a means towards *SG*, given information public to *S* and *A*, *U* cooperatively signals *p*.

17. Note that the following view is in line with Greco's (2020) point that cooperation is fundamental to testimonial exchanges. Nevertheless, Greco does not address the communicative dimension of testimony and I do not endorse the epistemic consequences he sees stemming from this fact.

18. Agents can cooperatively communicate with others who they do not know, as when I tell someone behind a curtain that the theater is closed; potential cooperators in the future, as when I leave a note that the fridge is not working; and even groups of people, as when I announce that dinner is ready.

The relevant cooperative warrants are provided by the fact that an agent's cooperative action is best interpreted as providing information about the world. In the sense at stake here, a proposition is cooperatively signaled by an utterance when it provides the most coherent, simple, and reliable explanation of a speaker's communicative action as embedded in a cooperative interaction.

My contention is that testimonial contents are cooperatively warranted signals. Thus, the following thesis:

Cooperative Warrant Thesis (CWT): Speakers testify to the propositions cooperatively signaled by their utterances.

Two clarifications are in order. First, CWT is meant to capture the epistemic grounds that secure testimonial interpretation. Hence, it is ecumenical with respect to how cooperative inferences should be modeled or whether cooperatively warranted signals amount to other discourse categories in the literature—like sayings, tellings, statements, or assertions.¹⁹

Second, the sense of cooperation at stake is permissive. All agents need to testify to present themselves as committed towards a shared goal and acting mutually and responsively to achieve it. This allows for testimony to occur in non-ideal cases. Speakers, for instance, can acknowledge shared goals in bad faith. Deception is the paradigmatic case. Nonetheless, if deception is to be effective, the features of the conversation must indeed cooperatively warrant the testimonial role of an utterance.²⁰ Successful deceivers must offer good (albeit ultimately devious) indication that they are cooperative speakers. Further, cooperation can be variably motivated. You may paint the house with me because of our friendship or out of fear of what I would do if you do not. Hence, speakers can be coerced into testimonial cooperation through effective threats.²¹ In the

19. Arguments as to how testimony is best modelled and whether it amounts to other categories in the literature extend the scope of this paper. Nevertheless, CWT is compatible, for instance, with Gricean maxim-centered models, questions under discussion frameworks, and game-theoretic pragmatics. Likewise, CWT makes no commitment towards what are the actual cognitive mechanisms that allow for content recovery. However, it has been shown that goal recognition and goal-based inference are crucial for linguistic interpretation in a way that is also orthogonal to conventional and non-conventional communication. Goal recognition is crucial for semantic supplementation (King 2014), semantic and discourse disambiguation (Hanna & Tanenhaus 2005; Hobbs et al. 1993), and diverse kinds of pragmatic enrichment (Roberts 2018; Simons 2010; 2018; Thomason 2003).

20. Likewise, speakers can accidentally issue cooperatively warranted contents (*pace* Owens 2006). In the same context, María's accidental uttering of (1) will still communicate that the store sells charcoal even if for some reason she would have preferred not to communicate this.

21. Whether testimony so motivated is reliable or not in these cases is an independent issue. What matters here is whether the cooperative features of the conversation warrant interpreting such an utterance as testimony.

next section, I say more about how contentious and ambiguous contexts modulate and constrain testimonial contents.

Crucially for our purposes, CWT is orthogonal to the distinction between conventional and non-conventional communicative strategies. The fact that a string of words is conventionally associated to a content is not enough for it to serve a testimonial function in a given conversation. It has to be embedded in the right context that warrants its interpreting it as offering testimony. This is what distinguishes literal communication from irony, sarcasm and, more radically, cases of sleepalking. Under the right conditions, sometimes conventional contents will be cooperatively warranted and thus serve a testimonial function. If María utters “The store down the road is open and it sells charcoal” she testifies to the literal interpretation of her words because it is cooperatively signaled by this utterance.²²

Other times, as long as their utterances serve as cooperatively warranted signals, speakers can appeal to non-conventional means to testify.²³ In **Charcoal**, interpreting María as communicating that the store is open and sells charcoal rationalizes her utterance as a cooperative move towards her acknowledged shared goal. The cooperative role of (1: “There’s a store down the road”) is narrowed down to providing information relevant to obtaining charcoal. Once Gabriel and María have committed to the goal in question, there being charcoal in the store follows from a goal-grounded cooperative interpretation of her utterance and thus her utterance fulfills a (non-literal) testimonial function.

Under CWT, testimonial contents have external determinants that do not hinge on the mental states of any sole interlocutor.²⁴ The cooperative interpretation of María’s utterance does not hinge on premises about her private intentions but on information available to both her and Gabriel and their shared commit-

22. Searle complains about Gricean accounts by pointing out that, in some cases, speakers communicate literal interpretations without intending it or even knowing their meaning (Searle 1965; but see Schiffer 1972). Under CWT, if a literal interpretation counts as testimony at all, it is because, under the given context, that is the only cooperative interpretation available.

23. Although I focus on implicatures, cooperative signals can be enacted by a wide set of communicative strategies. This includes, for instance, non-verbal signals—like pointing to the garage when asked where the brushes are. Although these signals will require more from context to ensure a cooperative warrant, nothing about CWT precludes them to serve a testimonial function.

24. Compared to other Gricean accounts of communication, the distinctive aspect of CWT is that, at least when it comes to testimony, meaning determination is given by the rational interplay of utterance and cooperative commitment, not by the intention with which the speaker issues a specific utterance. In the successful case, intention and cooperative interpretation align. Nevertheless, cooperative interpretations can still stand in the absence of the corresponding speaker intention. Hence, the intention in action with which a speaker emits an utterance is not the intention that determines her accountability. Rather, what enables testimonial accountability is the expressed intention to achieve a shared goal, against which utterances are to be interpreted.

ments. María's publicly acknowledged cooperative commitment, together with her publicly available utterance, yields the cooperatively warranted interpretation that the store is open, and it sells charcoal—even if for some reason she actually intended to communicate something else with her utterance.²⁵

This explains why Gabriel has the standing to hold María accountable. He can appeal to the public features of the conversation that warrant María's cooperative signal to hold her accountable if it amounts to defective testimony. Of course, that a content is cooperatively warranted does not mean that it must in fact be added to the conversational record. Once recognized as such, cooperatively warranted interpretations can be rejected or challenged by interpreting audiences. Gabriel may still refuse to accept that the store sells charcoal. Nevertheless, that a proposition is cooperatively warranted fixes it as the testified content at stake.

The dynamics of cooperation also explain the commitment shift in **Charcoal***. In this case, Jane and Sam are jointly committed to hosting a party, which requires food and drinks. Nonetheless their respective individual goals preclude them from being jointly committed to hosting a barbecue (which requires charcoal) or an indoor party (which requires decorations). At most, then, they can be jointly committed to hosting a party that requires food and drinks, but not one that requires charcoal or decorations. Hence, the cooperatively warranted interpretation of Jane's utterance (4: "There is a store down the road"), includes only what is relevant for this limited shared goal. That there is charcoal in the store is *not* cooperatively warranted, even if it is required for Sam's individual goal. Likewise, that there are decorations at the store is not cooperatively warranted, even if it is required by Jane's individual goals. Even if Sam infers that Jane believes the store sells Charcoal, this inference does not depend on their shared commitment and therefore is not cooperatively warranted by the interaction. This is why his question (6: "Do they sell charcoal?") is still appropriate. Jane thus testifies only to the fact that the store is open, and it sells food and drinks.

Before I move on, let me address a possible concern. Intuitively, some agents can gain testimonial knowledge without sharing the goals of the speaker. This is paradigmatically exemplified by eavesdroppers (Lackey 2008; Owens 2006). Say that Ryan listens to María's interaction with Gabriel and acquires knowledge that there is charcoal at the store. To make the case stronger, we can imagine that María does not want Ryan to know there is charcoal in the store. In that case, Ryan could arguably gain testimonial knowledge without sharing any goals with María. Perhaps, then, cooperation is not essential to testimony.

25. Note that this renders CWT immune to objections of Humtdumptyism (MacKay 1968; but see Donnellan 1968).

Here, it is important to note that for a content to be cooperatively warranted, CWT requires that a speaker and an audience share a goal that rationalizes the speaker's utterance. That a third person witnesses the conversation does not bear on whether this requirement is met. Arguably, if Ryan gains testimonial knowledge at all, it is only in virtue of the fact that he understands María is indeed testifying to Gabriel that there is charcoal in the store. This is in turn only possible if Ryan understands the goals at stake and how they yield this content. Under CWT, this means that he understands that the cooperatively warranted interpretation of María's words is that there is charcoal at the store.²⁶ Testimony ensues when interlocutors cooperate towards a shared goal, even if this does not involve every other agent that can learn from it.

Summing up, modeling testimonial contents as cooperatively warranted signals captures the characteristic features of testimonial communication while allowing for the commitment shifts we observed in §2. Cooperatively warranted signals hinge on conversational features that are public to both speaker and agent and, thus, can be appealed to when holding speakers accountable for their defective testimony. I turn now to explain how CWT excludes non-testimonial contents and capture the effects of weak and strong cooperation in testimonial exchanges.

5. Non-Testimonial Communication

If CWT is correct, testimonial contents are fixed by the cooperative interpretations of an utterance, given the interests that structure a conversation. What, then, distinguishes non-testimonial communication, as exemplified by our superintendent's utterance?

Communication theorists have classically focused on conversations in which interlocutors' goals fully overlap, and utterances explicitly advance them. Yet, not all conversations are so fortunate.²⁷ Conversation requires that interlocutors to acknowledge *some* shared communicative interests. All in all, agents with no shared goals have no reason to even begin a conversation. Nevertheless, the rela-

26. This also explains how one may gain testimonial knowledge from diaries (Lackey 2008; Owens 2006). Sometimes, diaries can be understood as means for an agent to cooperate with her future time slices. In those cases, an utterance in a diary may count as testimonial. If I read Raul's diary and know he uses it as a log for his house chores, I can gain testimonial knowledge that there is a spider nest in his attic. I'm in the same position of the eavesdropper. Decontextualized diary entries do not count as testimony. This is not a costly bullet to bite, for I can still treat the diary as a source of evidence, just not testimonial evidence (Coady 1992).

27. Recent years have seen exceptions to this trend. Some examples are Asher and Lascarides (2013), Saul (2018), Camp (2019). See Beaver and Stanley (2018) for a review of this perspective change in the philosophy of language.

tionship between utterances and goals can be ambiguous in ways that constrain cooperatively warranted contents and, therefore, testimonial commitments.

The superintendent's audience may want to know precisely how he convinced the police commissioner to retire. Yet, the nature of the interaction offers them evidence that the superintendent does not have the goal to share self-incriminating information. At most, then, the superintendent's audience can be confident that they share the unspecified goal of issuing relevant information about the police commissioner's retirement.

Under this goal, however, the utterance

- (7) I gave him a hundred thousand reasons to retire

yields a wide set of plausible cooperative interpretations. And, while this set includes that a bribe was involved, it also includes alternative and innocuous interpretations to which the superintendent can appeal in denying his commitment—like having given the police commissioner many non-criminal reasons to retire. Although allowed as possible cooperative interpretations, none of these interpretations is required by the best explanations of (7) as means towards the shared goal of informing relevant information about the commissioner's retirement. Consequently, none of them is cooperatively warranted.

Unlike the testified contents in **Charcoal** and **Charcoal***, given the vague shared goal that guides the conversation, (7) communicatively fails to commit the superintendent towards a sufficiently specific content and, therefore, does not yield testimony about precisely how he convinced the commissioner to retire. While testimonial communication is determined by how a given interpretation is required by the shared goals that structure a conversation, non-testimonial communication exploits a range of allowed (but not required) interpretations to generate cooperative ambiguity. This ambiguity generates the uncertainty that characterizes insinuated speech (see, for instance, Pinker et al. 2008; Asher & Lascarides 2013; Camp 2019). Things would be different if our superintendent uttered (7) in a conversation with his boss, who had instructed him to bribe the commissioner. Arguably, in that case, (7) will cooperatively warrant the content that the commissioner was bribed, and his utterance amount to testifying so.²⁸

Of course, non-testimonial insinuations may occur in less contentious interactions. Two gossiping friends may be mutually interested in sharing information about Gale's love life. One of them may insinuate he is seeing something by uttering "well, he is going to the gym a lot lately". In this case the utterance at

28. Say that this conversation between the superintendent and his boss has been bugged by the police. Since most probably the police do not share the information that is public between the criminals, they do not have enough evidence to account for what is cooperatively warranted in their conversation. Hence, speakers may testify only to a subset of their audiences.

stake may play some cooperative role in the conversation. Nonetheless, it still fails to play the role of communicating *the* cooperatively required content that Gale is dating someone. If an utterance is to play the deniability-preserving role of insinuation, it must be vague enough to generate uncertainty among possible interpretations, given the acknowledged goals of the conversation. Such ambiguity may come from the indeterminacy of the goals or the vagueness of the utterance.

This marks another theoretical perk of CWT. It not only captures intuitions about epistemic commitments in cases like **Charcoal** (and **Charcoal***) and our superintendent's, but also accommodates intuitions that motivate conventionalism. In some cases, conventional moves in conversation can yield testimonial commitments, while non-conventional moves cannot.

To see how, note that had the superintendent uttered

- (8) I bribed the police commissioner

He would have confessed in a way that does commit him to his bribery. Even under an unspecified shared goal, the cooperatively warranted interpretation of (8) is that he bribed the police commissioner. Given the widely accepted conventional features of (8), there is no room for alternative interpretations. This literal interpretation is the best explanation of his utterance as a means towards the goal at stake.

More generally, there is an inferential tradeoff between goal definiteness and conventional explicitness. We have seen that evident and specific shared goals allow pragmatically rich contents to be cooperatively warranted and serve a testimonial function. The fact that María and Gabriel have specified their shared goals to obtaining charcoal for the barbecue allows (1) to play the cooperatively warranted role of communicating that the store is open and sells charcoal. Nevertheless, unspecified goals make pragmatically rich speech cooperatively inert. Had María and Gabriel shared the goal of hosting any kind of party, (1) would not have yielded the cooperatively warranted content that there is charcoal at the store.

In that case, however, María could rely on the more conventionally explicit utterance

- (9) You can buy charcoal in the store down the road.

Even under an unspecified goal, the conventional features of (9) narrow the relevant explanations in a way that conveys what (1) conveyed under a more specific goal. Against unspecified or uncertain goals, conventionally explicit utterances can narrow down plausible interpretations so that the only cooperatively warranted content is their conventional interpretation.

It is to be expected, then, that in contexts where it is not clear whether interlocutors share sufficiently similar goals (like police interrogations or contentious negotiations) cooperatively warranted contents will often converge with the literal interpretations of our utterances. Contexts like these tend to provide only evidence for underspecified shared goals. Therefore, widely shared linguistic conventions will tend to offer the safe, cooperatively warranted interpretations that yield testimony. This is why, in uncertain contexts, it makes sense for audiences to pressure speakers into using more explicitly literal utterances that exclude a broader set of possible interpretations.

Nevertheless, this effect is explained by the goal dynamics of the conversation, not by the mere historical record of conventions. As we have seen, in cases where there is robust evidence of sufficiently specific goal overlap, speakers can thoroughly and genuinely commit to contents yielded beyond the conventional meaning of a speaker's utterance. There is no need to exclude such cases from the realm of testimony just because in some other cases the cooperative features of a given conversation do not warrant non-conventional contents. This kind of modulation effect of cooperation on testimonial contents is neatly explained by CWT and is simply missed by conventionalism.

Moreover, CWT captures the fact that in some contexts not even Fricker and Goldberg's literal contents can fulfill a testimonial function. Insofar as literal contents require some contextual supplementation, interactions where goal overlap is extremely minimal will entitle audiences to reject even literal interpretations. These cases, for instance, may require making explicit demonstrative reference ("who do you mean by 'he'?"'), relative adjectives ("how *tall* do you mean the suspect was?"'), relational expressions ("what are you ready *for*?"'); and disambiguation ("do you mean the suspect is in Geneva, New York, or Geneva, Illinois?"').

Finally, CWT accommodates seemingly incompatible experimental data. Mazzarella et al. (2018) and Sternau et al. (2015) have found that what I have called here 'literal' and 'non-literal' conversational moves can enact communicative commitments for which speakers are held accountable. Yet, both studies also found that, comparatively, audiences tend to judge non-literal contents as less committing. However, the paradigms used by these studies presented lightly described contexts in which the shared goals of the conversation were not salient. In contexts like these, CWT predicts that literal contents will be interpreted as indeed yielding stronger commitments. Nevertheless, CWT also predicts that when contexts involve strong cooperation under specific goals non-literal contents can indeed generate testimonial commitments. So far, however, no experimental paradigm has included a cooperation variable. For now, suffice it to say that the differential in accountability judgments is not necessarily counterevidence against CWT.

6. Conceptual Adequacy

I argued in §2 that the dynamics of testimonial commitments present an extensional problem for conventionalist views of the communicative dimension of testimony. The epistemic commitments in **Charcoal** and **Charcoal*** are not captured by mere linguistic convention. Nevertheless, extensional adequacy is not all there is to theory building. Perhaps the cost of excluding pragmatically rich communication from testimony is worthwhile if there is an overwhelming conceptual link between convention and epistemic commitment.

In this section, I consider what this link could be. Ultimately, it is not clear what about convention gives it the exclusive privilege to constrain testimonial communication. In contrast, CWT offers a principled explanation of why testimony entails epistemic commitment.

In defending literalism about testimony, Fricker and Goldberg suggest that one of the main reasons we communicate beyond literal contents is to preserve deniability and remain able to deflect the kind of accountability that comes with testimony. To be sure, this is the case with our superintendent. His insinuation allows him to deflect epistemic deferrals and claims of accountability. So, one may suggest that conventions are especially suited to constrain testimony because they block this kind of deniability.

Nevertheless, the possibility of the kind of communicative exploitation just described extends to semantic conventions.²⁹ As the argument in §5 suggests, even if the semantic components of an uttered sentence are clearly laid out in speech, speakers may concoct scenarios in which they gain plausible deniability by exploiting the context-sensitivity of literal contents. Speakers may, for instance, exploit ambiguous expressions (“oh sorry by ‘Geneva’ I meant Geneva, New York, not Geneva, Illinois), pronouns (“oh, by ‘he’ I meant Jack, not Bert”), gradable adjectives (“oh, by ‘tall’ I meant tall for a Colombian”), and relational expressions (“oh, I meant I was ready to study, not ready for the exam”).

This problem extends to any wider communicative convention. Virtually all accounts of discourse conventions admit that a vast number of these conventions are ambiguous, and interlocutors must appeal to contextual features to disambiguate communicated contents.³⁰ Therefore, the use of discourse conventions—to whatever extent they are actually appealed in speech—is open to the kind of exploitation that convention was supposed to block. Hence, unless conventionalism is implausibly constrained to limit testimony to utterances that include explicit, in-sentence

29. This point is also noted by Camp (2019), Hawthorne (2012), and Peet (2015).

30. In general, Lepore and Stone (2015a) argue that what many theorists call pragmatic processes really amount to disambiguation among conventional alternatives. When it comes to the communicative dimension of testimony, this is precisely why convention alone in itself cannot explain testimonial commitments.

supplementation and disambiguation ("he is at the bank; and by 'he' I mean Jack Smith and by 'bank' I mean the financial institution in Linn Street"), defenders of the view must admit that the mere possibility of communicative exploitation is not enough reason to exclude non-literal contents from testimonial communication.

It might be tempting for conventionalists to argue that conventional communication may not always block the kind of exploitation enacted by our superintendent, but it is more epistemically stable than non-conventional communication. After all, by definition, conventions are procedures with a history of coordination success (see, for instance, Geurts 2018; Lepore & Stone 2015a; 2015b; Lewis 1975; 1980; Marmor 2009). Such history of stable behavioral patterns may give reason to audiences to think that when a convention is used, speakers mean the contents associated with it. Perhaps, then, conventions give audiences stronger inductive reasons to believe that speakers mean their associated contents.

At most, however, this is an argument for adopting conventionalism as a heuristic (and given my arguments above, not a great one.) It is not an explanation of why in principle the commitments that characterize testimony must be restricted to conventional contents. The conventionalist must explain not only why conventions can give us reasons to believe that speakers mean the associated contents but why the use of convention in particular is exclusively privileged in generating the epistemic commitments that characterize testimony.³¹

Inductive stability, however, does not fulfill this explanatory role. Jill may know that her neighbor Jack tends to turn the lights off when he leaves his house. But in no way can Jill hold Jack accountable for leading her to believe that he was home the day he forgot to turn off the lights. If all there is to say about the conceptual link between convention and testimonial commitment is that people tend to mean the contents associated with conventions, the case for a conventionalist account of the communicative dimension of testimony is not very strong.

In contrast, CWT offers a straightforward explanation of the link between cooperation and testimonial commitment. If CWT is correct, epistemically committing to a content follows as a means to achieve a shared goal. Therefore, epistemic failures in testimony are failures to comply with what speakers presented themselves as cooperatively committed. Given that communicating the truth of cooperatively warranted interpretations is required to fulfill shared goals, failing to have the appropriate epistemic warrant with respect to these contents entails failing to achieve said goals. In as much as failing to do what we commit to do with others

³¹ Could the conventionalist suggest that there is a further convention to hold speakers accountable for their testimony? Two considerations against this suggestion. First, this is a far cry from the plausibility and stability motivations that have motivated semantic conventionalism. Second, this would require the posit of a meta-grammar of accountability that, presumably, developed *after* linguistic conventions. CWT offers a more parsimonious explanation of why communication and accountability are deeply related.

entitles them to criticize and hold us accountable, failing to offer properly warranted testimony given a shared goal also entitles audiences to criticize and hold speakers accountable.³² Therefore, we can say that the specific contents derived from inferences whose crucial premise is the cooperative commitments of a speaker *inherit* the normative features of the commitment to the joint goal that warrants them.³³

Crucially, this strategy neatly explains why certain information, even if obtained from communication, does not carry the commitments that characterize testimony. As with our superintendent, sometimes, we can infer information given what others tell us through inferences that are not based on our shared goals. Given that their commitment to such shared goal is not what warrants the inferred content, speakers are not accountable for having communicated said content—certainly not in the way in which he would be had he testified to it. In our superintendent case, given his obvious goal of avoiding confession, he and his audience do not share the goal of exchanging information about bribing the commissioner. However his audience interprets the superintendent's utterance, it will not be warranted by this goal and therefore will not inherit the epistemic commitments of testimony.

7. Conclusion

I have presented a distinctive account of the communicative dimension of testimony. CWT provides a principled criterion that individuates the contents for which testifying speakers are epistemically accountable. The practical normativity of cooperative action provides a context-sensitive account of the communicative mechanisms that serve a testimonial function in a given conversation. On the one hand, the cooperative criterion provided here is orthogonal and thus more comprehensive than accounts that appeal to conventions of speech. CWT in turn accommodates conventionalist intuitions by noting that the cooperative features of a conversation may warrant only minimal goal overlap and offers predictions of when testimony can ensue through non-conventional means. On the other hand, the cooperative criterion provides a principled explanation of why testimony as an epistemic source involves the kinds of commitments that characterize it. These

32. This claim can have two readings. First, one may say that joint commitment *constitutively entails* entitlements of criticizing and holding accountable agents who fail to do what is required by the joint goal. Gilbert (2009) has an account of this sort. Second, one may say that joint commitments are merely concomitant with these entitlements. Bratman (2009; 2014) has a view of this sort.

33. Testimony is often compared to promising (cf. Fricker 2006; Goldberg 2012; 2015; MacFarlane 2011), as it is seen as a speech act in which speakers willingly enact commitments for which they are responsible. Following that vein, CWT will be parallel to accounts of promising that explain the normativity of this speech act as generated by joint commitments in action. See de Kenessey (2020) for a promising account in this spirit and discussions on how it positively fares compared to conventional accounts.

commitments are ultimately explained by the non-language-specific cooperative commitments that enable testimonial communication in the first place

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