

Loar's Puzzle, Similarity, and Knowledge of Reference*

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Article Info:

CDD:121

Received: 25.04.2019; Revised: 09.07.2019; Accepted: 09.07.2019

DOI:

<http://dx.doi.org/10.1590/0100-6045.2019.V42N2.AO>

*Thanks to audiences in Tehran, Graz, Vienna, San Luis Potosí, and Mexico City for their very useful feedback. Special thanks to: Derek Ball, Katharina Felka, Michael Murez, Wes Siscoe, Matheus Valente, Michael Wallner, and two anonymous reviewers for this journal. This research was funded by: the *Universidad Autónoma de San Luis Potosí*, the University of Graz, and the FWF (Austrian Science Fund) project *The Fragmented Mind: Belief, Rationality, and Agency* (project number: P27587–G15). I am grateful to these institutions for their support.

Keywords:

Communication

Reference

Singular terms

Similarity

Knowledge

Abstract: In ‘The Semantics of Singular Terms’ (1976) Brian Loar proposed a famous case where a hearer seems to misunderstand an utterance even though he has correctly identified its referent. Loar’s case has been used to defend a model of communication where speaker and hearer must think of the referent in similar ways in order for communication to succeed. This ‘Similar Ways of Thinking’ (SW) theory is extremely popular, both in the literature on Loar cases and in other philosophical discussions. My goal is to offer a novel argument against this influential model of communication and propose an alternative picture. First, I show how a certain version of SW fails to solve Loar’s puzzle. Then I point at a more general problem with SW, arguing that no version of this model can account for Loar-style cases without making the conditions for communication too strict. I then propose an alternative account of Loar cases, analyzing them as cases of luck where the hearer does not know that she has identified the referent correctly. I conclude by contrasting my view with other existing accounts of Loar cases.

1 Loar Cases

What is it to communicate successfully? More specifically, under what conditions does a hearer understand a simple declarative utterance of the form *a is F*?¹ Here is a straightforward answer:

Reference Identity (RI): A hearer *H* who

¹I will exclusively focus on utterances of this form. Also, I will use ‘utterance’ to cover both spoken utterances and written inscriptions, referring to the sender as ‘speaker’ and the receiver as ‘hearer.’

accepts an utterance u produced by speaker S understands u iff the belief that S expresses through u and the belief that H forms as a result of u ascribe the same property to the same object.²

In simpler terms: assuming that hearer H accepts the utterance and understands its predicate, communication succeeds as long as H identifies the object to which the speaker is referring. For instance, suppose Smith says 'He is a stockbroker' while pointing to a particular man. According to RI, Jones understands just in case he comes to believe, of the man demonstrated by Smith, that he is a stockbroker.³

It follows from RI that, if speaker and hearer ascribe the same property to the same object, then the hearer has understood, no matter how she thinks of the object. However, the famous "Loar cases" (Loar 1976) show that this consequence is unacceptable. Consider for instance Loar's original case (I will refer to it as 'Stockbroker'):

Stockbroker: Suppose that Smith and Jones are unaware that the man being interviewed on television is someone they see on the train every morning and about whom, in that latter role, they have just been talking. Smith says 'He is a stockbroker', in-

²We should of course also consider cases where H understands the utterance without accepting it as true. To simplify the discussion I will often ignore this complication and assume that H accepts the utterance.

³RI is usually associated with "Direct Reference" or "Millian" theories of singular terms – see Braun (1998), Kaplan (1989a,b), Salmon (1986), and Soames (2002). However, these are semantic theories while RI is a theory of communication. The two should therefore be distinguished – for instance, Chalmers (2002, fn. 29) seems to accept RI for at least some utterances, but he rejects Direct Reference. On the other hand, Buchanan (2014) endorses Direct Reference but rejects RI.

tending to refer to the man on television; Jones takes Smith to be referring to the man on the train. Now Jones, as it happens, has correctly identified Smith's referent, since the man on television is the man on the train; but he has failed to understand Smith's utterance. (Loar 1976, p. 357)

Jones has come to believe of the man on the train that he is a stockbroker, but the man on television is the man on the train, so Jones also believes of the man on television that he is a stockbroker.⁴ Smith and Jones thus ascribe the same property to the same object. Therefore, RI predicts that Jones understands Smith's utterance. However, this prediction appears incorrect. For instance, the conversation might continue as follows:

Jones: How do you know that? Is it because of what he reads on the train?

Smith: I was actually talking about the man they are interviewing, not the man we see on the train – I have no idea what his profession is.

Jones: Oh, sorry! I thought you were talking about that other man.

Smith and Jones both think there was a misunderstanding; furthermore, it is easy to imagine how Smith's initial assertion will lead Jones to reason and act in ways that do not fit with Smith's intentions in making that assertion. This seems to show that something has gone wrong in the exchange, and Jones has not understood.

⁴Of course, ascribing this belief to Jones is correct on a *de re* reading of the ascription, not on a *de dicto* one – see for instance Burge (1977) for discussion.

Buchanan (2014) presents an analogous case:

Smith and Jones are sitting on a park bench, as Smith is reading a story regarding the non-music-related business ventures of [Bob] Dylan in *The Wall Street Journal*. The centre spread has a large picture of Dylan to which Smith nonchalantly gestures and utters ['That rock star is a stockbroker']. Jones, however, takes Smith to be intending to refer to a certain man sitting directly across from them in the park – one who happens to be Dylan. Even if, as a result of Smith's utterance, Jones correctly identifies to whom Smith is referring with 'he', intuitively, he has not understood Smith's utterance. (Buchanan 2014, p. 58)

Here Smith intends to refer to the man appearing in the newspaper, while Jones thinks he intends to refer to the man in the park. Unbeknownst to them, however, the man in the newspaper is the man in the park. So Jones has identified the right referent, but he does not seem to have understood. Note that here Jones does understand that Smith is talking about a salient man he is attending to, so Jones understands the "linguistic meaning" of the utterance – his mistake is not that of a non-native speaker who is learning how to use pronouns in English. Moreover, Jones thinks about the right person as a result of Smith's utterance. Buchanan's point is that all this still seems insufficient for understanding.

2 Ways of Thinking

What should we learn from the cases examined in the previous section? As we have seen, RI generates wrong predictions about these cases – ascribing the

same property to the same object is insufficient for two speakers to communicate successfully. But then what else is required? Loar draws the following conclusion from his *Stockbroker* case:

It would seem that, as Frege held, some ‘manner of presentation’ of the referent is [...] essential to what is being communicated. (Loar 1976, p. 357)

Building on this idea, Loar and others (see Bezuidenhout (1997), Paul (1999), and Recanati (1993, 1995)) have proposed accounts where speaker and hearer must not only ascribe the same property to the same object, but also think about that object in similar ways:

Similar Ways of Thinking (SW): A hearer *H* who accepts an utterance *u* produced by speaker *S* understands *u* iff:

1. The belief that *S* expresses through *u* and the belief that *H* forms as a result of *u* ascribe the same property to the same object.
2. *H*’s way of thinking about the object is sufficiently similar to *S*’s way of thinking about the object.⁵

What is a way of thinking? The notion is of course closely related to Frege’s (1892) notion of a “mode of presentation,” as Loar himself points out in the above passage.⁶ We will later consider various possible ways

⁵*S* and *H* should also think of the relevant property in sufficiently similar ways, but we can omit this to simplify the discussion.

⁶I do not mean to suggest that Frege would have endorsed SW, as Loar seems to say here. Frege’s theory concerning modes of presentation and their relation to “senses” raises difficult exegetical issues that cannot be addressed here.

of construing the notion. For now, we can roughly identify a subject's way of thinking of an object with a set of properties that she takes the object to instantiate. This simple formulation seems sufficient to deal with Loar cases. In *Stockbroker*, Smith intends to refer to the man on television, so he thinks of the referent as *the man on television*. On the contrary, Jones thinks Smith intends to refer to the man on the train, so he thinks of the referent as *the man on the train*. Since speaker and hearer think of the referent in radically different ways, SW's second condition for successful communication is not satisfied. It thus follows from SW that Jones does not understand, which is the correct prediction. A parallel explanation can be given for Buchanan's case, where Smith thinks of the referent as *the man appearing in the newspaper* while Jones thinks of the referent as *the man in the park*.

How similar must ways of thinking be for communication to succeed? Different answers are possible. Some views require complete identity: speaker and hearer must think of the object in exactly the same way. However, many recent theorists take this to be too strict. On their alternative approach, communication can succeed if the hearer deploys a way of thinking that is sufficiently similar (even if not completely identical) to that of the speaker – see Bezuidenhout (1997), Block (1993, sect. 5; 1998), Harman (1993) Jackson (1998b, p. 214), and Prinz (2002, pp. 158-59). Now, any theory along the lines of SW will have to specify the level of similarity required for successful communication. Luckily, however, we can set this complication aside since my arguments in this paper will apply to any SW theory, no matter how strict it is about the conditions for communication.

SW has not just played a prominent role in the debate about Loar cases. This picture of communication has been endorsed by several theorists in different con-

texts – see Block (1993, sect. 5; 1998), Duhau (2012), Harman (1993), and Prinz (2002, pp. 158-59) among others. Frank Jackson says:

Communicating how things are by the use of words turns on associations between words and properties in the minds of speakers and hearers [. . .]. In the ideal case, the properties associated by speaker and hearer will be the same, but in practice this is often far from the case. As long as we can bring the properties associated by speakers and hearers into line when it matters, no great harm results from divergences from the ideal [. . .]. (Jackson 1998b, p. 214)

My goal in this paper is to criticize this popular model of communication and propose an alternative picture.⁷ I will start (Section 3) by arguing against one influential version of SW. I will then consider a different version of SW (Section 4) and show that it is still incorrect. Finally, I will propose a different account of Loar cases and communication, one that does not suffer from the same shortcomings as SW (Sections 5-7).

To my knowledge, my objections to SW and my proposed solution to Loar’s puzzle are in large part novel. I am, however, highly indebted to several authors who rejected traditional pictures of communication and pushed for alternative accounts – see especially Cumming (2013), Dickie and Rattan (2010), Fine (2007), Heck (1995, 2002), Prosser (2018), Schroeter (2012), and Schroeter and Schroeter (2014). I have also benefitted from the discussion of Loar cases in Buchanan (2014), Peet (2017), and Unnsteinsson (2018), and I will later discuss their proposals (Section 6).

⁷Fodor (1998) and Schroeter and Schroeter (2014) criticize appeals to similarity through objections that are different from the ones presented here.

3 Reference Determination

We should now get clearer on what ways of thinking are. As we have seen, one option is to identify a way of thinking of an object with a set of properties that the subject takes the object to instantiate. In *Stockbroker*, for instance, Smith might think of the referent as *the man on television*, while Jones thinks of him as *the man on the train*.

At this point, an important question arises: do these “descriptive” ways of thinking also determine or fix the referent of Smith’s and Jones’s beliefs? As Heck (2002, p. 4) notes, we can explain the notion of “reference determination” in a mathematical sense: assuming that ways of thinking determine reference, if two subjects are thinking in exactly the same way, then they are thinking of the same object. Deploying the same way of thinking as the other subject guarantees co-reference with her. In less precise terms, if a belief involves a certain descriptive way of thinking, then the referent of the belief is the object that satisfies the description. For instance, the belief Smith expresses with his utterance involves the description $\langle \textit{the man on television} \rangle$, so the referent is the person who is currently appearing on television.

SW theorists like Bezuidenhout (1997), Jackson (1998a,b), and Loar (1976)⁸ seem to take ways of thinking to determine reference. On this picture, ways of thinking play two roles: they determine communicative success and they fix the reference of our beliefs. Smith’s belief is about whatever satisfies the description $\langle \textit{the man on television} \rangle$, while Jones’s belief is about whatever satisfies the description $\langle \textit{the man on the train} \rangle$. The two descriptions are obviously very different, even

⁸In section X of his (1976) article Loar might be suggesting a different picture, but I am not sure how to interpret his remarks in that section.

though the same man happens to satisfy them.⁹ Smith and Jones thus think of the referent in very different ways. Therefore, Jones does not understand.

This version of SW might seem initially appealing, but it yields unacceptable results.¹⁰ Consider the following case:

Writer: Rudolf Lingens writes novels under the pseudonym ‘Leo Peter.’ Not realising that Lingens is Peter, Gustav Lauben asks Lingens if he can deliver a message to Peter. Desiring to keep his other identity secret, Lingens accepts and waits for Lauben to write the message. While waiting, he suffers from a bout of amnesia, forgetting that he is Peter, the writer, and that Lauben will give him a message for Peter. So, when Lauben gives him the message ‘You are a great writer,’ Lingens thinks ‘This message is for me. I am a great writer.’

The belief expressed by Lauben (‘You are a great writer’) and the belief formed by Lingens (‘I am a great writer’) have the same referent (Lingens/Peter).¹¹ Yet Lingens has not understood – indeed, his misunderstanding is at least as serious as Jones’s misunderstanding in *Stockbroker*, as this development of the exchange shows:

Lingens: I am a great writer. . . Thank you!

⁹As they are, the descriptions in question are incomplete, but let us grant that the SW theorist would be able to provide complete descriptions for both Smith and Jones.

¹⁰The objection to follow is based on famous arguments by Kripke (1972) and Perry (1977, 1979).

¹¹For the sake of brevity I will sometimes use expressions in quotes to refer to beliefs, as in “Lingens forms the belief ‘I am a great writer.’ ” This should be read as: “Lingens forms the belief that he would express with ‘I am a great writer.’ ”

Lauben: What? The message is not for you, you are supposed to give it to Peter!

Of course, SW could now provide the same kind of explanation again: Lauben thinks of the referent as *the man called 'Peter,'* while Lingens thinks of the referent as *the man called 'Lingens.'* They think of the referent in very different ways, so Lingens has not understood.

However, this explanation cannot be right. According to the version of SW we are considering, ways of thinking determine reference. Therefore, Lingens's belief 'I am a great writer' should be about the person who satisfies the description $\langle \textit{the man called 'Lingens'} \rangle$. And this is incorrect, for the hearer in *Writer* would form a belief about himself even if his name was not 'Lingens.' Suppose the person receiving Lauben's message (call this person '*H*') is wrong in thinking that his own name is 'Lingens' – perhaps no one has that name, perhaps someone else does. Still, the belief *H* forms as a result of Lauben's message is about himself, *H* – it does not fail to refer, nor does it refer to someone else. Therefore, the reference of *H*'s belief cannot be fixed by the description $\langle \textit{the man called 'Lingens.'} \rangle$ If it was, then the belief in question would not refer to *H* in case *H*'s name was not 'Lingens.'

The previous argument is a version of Kripke's (1972) semantic argument against descriptivism. Unsurprisingly, we can also use a version of Kripke's epistemic argument. If the description $\langle \textit{the man called 'Lingens'} \rangle$ fixed the reference of Lingens's belief, then he would know *a priori* that the belief he has formed is about the man called 'Lingens.' That is, Lingens would know *a priori* that his belief is about the person with that name. The problem is that Lingens has no such *a priori* knowledge. When Lingens thinks 'I am a great writer,' his knowledge of the referent's name is surely *a posteriori*. So, again, the description $\langle \textit{the man called 'Lingens'} \rangle$

cannot be what determines the reference of Lingens's belief.

As I mentioned, semantic and epistemic arguments of this kind are familiar from Kripke's and Perry's discussion of descriptivist theories of names and indexicals. My point here is that these classic problems arise in an especially forceful way if we accept the SW explanation of Loar cases. Now it might be replied that the reference of Lingens's belief should rather be fixed by a description like *< the thinker of this thought >*, while the reference of Lauben's belief should be fixed by a description like *< the person I am addressing >*.¹² This seems to avoid epistemic and semantic objections by generating the right predictions: now the hearer in *Writer* will be thinking of himself even if his name is not 'Lingens,' and he will not have any *a priori* knowledge of the referent's name.

Taking this route, however, destroys the SW explanation of Loar cases like *Writer*. Consider an ordinary case of successful communication: Paula says to Charlotte 'You are tall,' and Charlotte forms the belief 'I am tall.' The SW theorist will now have to hold that Paula and Charlotte respectively think of the referent as *the person I am addressing* and *the thinker of this thought*, just like Lauben and Lingens in *Writer*. So, when using the second-person pronoun, the speaker (Lauben and Paula) thinks of the referent as *the person I am addressing*, while the hearer (Lingens and Charlotte) thinks of the referent as *the thinker of this thought*. However, Charlotte understands while Lingens does

¹²I have been assuming that ways of thinking determine reference on this picture. It would be more accurate to say that ways of thinking determine reference "in the weak sense of determination in a context" (Chalmers 2011, p. 602). For instance, a description like *< the thinker of this thought >* will obviously only determine reference relative to a context. This does not affect my argument against SW, so I will ignore this complication in what follows.

not. So how do we explain Lingens's misunderstanding? Surely it is not due to his thinking of the referent as *the thinker of this thought* – Charlotte thinks of the referent in the same way, yet she understands perfectly well! SW may now have a more plausible account of reference determination, but it lacks an explanation of the *Writer* case.

In sum, SW faces the following dilemma: if Lingens thinks of the referent as $\langle \textit{the man called 'Lingens'} \rangle$, we face semantic and epistemic objections, but if Lingens thinks of the referent as $\langle \textit{the thinker of this thought} \rangle$, the original explanation is lost. The argument does not depend on the specific descriptions I have used in my examples. To see why, it will be helpful to use some technical notions from the “two-dimensionalist” framework developed by authors like Jackson (1998a,b) and Chalmers (2002, 2011). According to Chalmers, Lingens's belief ‘I am a great writer’ is associated with a primary intension – a function from scenarios to extensions.¹³ The extension picked out by the primary intension of ‘I’ at each scenario is the object that Lingens would identify as the extension at that scenario “given full information about [the] scenario and given the hypothesis that this information obtains in the actual world” (Chalmers 2002, p. 614). Primary intensions thus play the role of determining reference.¹⁴

How does this picture play out in the cases that we are considering? When it comes to ‘I,’ Chalmers says: “The primary intension of ‘I’, evaluated at a scenario, picks out the individual at the center of a scenario.” (Chalmers 2011, p. 598) On the other hand, the pri-

¹³Scenarios can be roughly identified with centered worlds – ordered triples of worlds, individuals, and times. Lingens's belief is also associated with a secondary intension, which we can roughly identify with its reference.

¹⁴More precisely, they determine reference in a context – see fn. 12 above. That is, for any given scenario, the primary intension determines what the belief is about at that scenario.

mary intension of ‘you’ picks out the addressee of the individual at the center of the scenario. Therefore, Chalmers notes, if I say ‘I am hungry’ and you say ‘You are hungry,’ “the propositions share their associated Russellian propositions [roughly, their referent], but not their primary intensions.” (2011, p. 602) This applies to any case of indexical communication such as *Writer*. So the reason why Lauben and Lings fail to communicate successfully in *Writer* is not that they think of the referent under different primary intensions, for the same happens in ordinary cases of successful communication. The reference of Lauben’s and Lings’s beliefs is indeed fixed in different ways – by different primary intensions – but this is not what explains Lings’s misunderstanding.¹⁵ Whenever we communicate with indexicals like ‘you’ speaker and hearer will fix the reference in different ways, but usually this does not prevent successful communication. Therefore, the misunderstanding in *Writer* is not explained by a difference in reference-fixing ways of thinking. The SW theorist needs to find a different explanation of the case.¹⁶

4 The General Problem with SW

It would now be natural for SW to retreat to a weaker position, on which ways of thinking determine com-

¹⁵It is worth noting that Chalmers’s primary intensions are not descriptions, so my argument does not depend on the assumption that ways of thinking are descriptive.

¹⁶I am not suggesting that Chalmers endorses SW. Chalmers (2002, fn. 29) simply seems to take reference identity as sufficient for successful communication with indexicals. As we have seen, this yields wrong results in Loar cases. (Sandgren (2018) and Weber (2013) criticize Chalmers for similar reasons.) Chalmers (2011, p. 612, p. 620, fn. 11) also seems to think that communicating with indexicals does not require similarity in primary intension. However, he does not spell out his alternative notion of “coordination,” nor does he consider Loar cases.

municative success but do not fix reference. If ways of thinking are sets of properties that speaker and hearer take the referent to instantiate, this yields the following picture. Communication succeeds only if speaker and hearer ascribe sufficiently similar sets of properties to the object of the exchange. However, the referent of the belief expressed by the speaker need not instantiate all or most of the properties that the speaker takes it to instantiate, and the referent of the belief formed by the hearer need not instantiate all or most of the properties that the hearer takes it to instantiate. Reference will rather be fixed through some entirely different mechanism – for proper names and kind terms, for instance, reference might be fixed by a causal-historical chain of uses (Kripke 1972) or deference to experts (Putnam 1975, Burge 1979).

Authors like Block (1993, 1998) and Weiskopf (2009) have proposed frameworks that are suitable for this kind of account. However, even this less ambitious version of SW faces serious problems. The first issue is that, once we concede that ways of thinking do not determine reference, it becomes hard to explain why they should play a role in successful communication. In a standard case involving a simple declarative utterance of the form *a is F*, why should the speaker care about how the hearer thinks of the referent?¹⁷ If ways of thinking determine reference, the SW theorist has a straightforward answer: as long as the hearer's way of thinking is identical or sufficiently similar to the speaker's way of thinking, then the hearer has identified the referent correctly. The SW theory examined in the previous section thus has a simple answer to our question. On the weaker, more modest version we are examining, no such answer is available. On this view, the hearer might identify the wrong object as the referent even if she is thinking in the same way as the

¹⁷See Unnsteinsson (2018) for discussion.

speaker. But then why would it matter for communicative success whether speaker and hearer think in similar ways?

Let us grant that SW can answer this question. Even then, the view still yields incorrect predictions, for it is too demanding – it just seems wrong to hold that successful communication requires sufficient similarity in ways of thinking. Consider the following case:

Danger: Rudolf Lingens is checking into a hotel. A member of the hotel's security staff, Gustav Lauben, notices on CCTV that the new guest is being followed. So he asks for the guest's number and sends him the text: 'You are in danger.' As a result, Lingens forms the belief that he would express with 'I am in danger' and leaves the hotel. Now, while checking in Lingens glanced at the very same screen that Lauben was looking at. Because the image was blurred, however, Lingens failed to recognize himself and thought (mistakenly): 'I am not the man in the video.'

Surely this is a case of successful communication and Lingens has understood Lauben's message. For instance, if Lauben learned about Lingens's reaction to his message, he would think that Lingens understood. As we have seen, this is not what happens in Loar cases, where both speaker and hearer judge that communication has failed. In *Danger* Lingens does fail to recognize himself as the man in the video, but this does not at all affect his ability to understand Lauben's message.

Crucially, however, Lingens and Lauben do *not* think of the referent in similar ways. Lauben thinks of the referent as, say, *the man in the video who was standing on the right of the small dog, his back facing the*

hotel's restaurant. . . In short, we can say that Lauben thinks of the referent as *the man in the video*. On the other hand, Lingens does not think of himself in this way, for he wrongly thinks that the man in the video is someone else. So, while Lauben associates the referent of his text message with the perceptual image from the video, Lingens does not. Also, Lauben's image of Lingens need not be similar to any perceptual image of himself that Lingens might have stored in his own memory. In sum, Lauben and Lingens think of the referent (Lingens) in very different ways. Therefore, SW predicts that Lingens has not understood, which is the wrong prediction.

The general point emerging from this case is that successful communication does not require similarity in ways of thinking. The essential idea behind SW is incorrect, resulting in an account of communication that is just too strict. In the attempt to explain why communication fails in Loar cases, SW has made the conditions for understanding too demanding. In fact, notice that Lauben's and Lingens's ways of thinking of the referent are not only different, they are *just as different* as the ways of thinking involved in the *Writer* case from the previous section. As you might recall, that case involved two subjects associating different names with the referent – Lauben thought of the referent as 'Peter,' Lingens did not. The same happens in *Danger*. In this case, the speaker thinks of the referent as *the man in the video*. However, the hearer thinks of the referent in an entirely different way – he does realize that he is the referent, but he does not realize that he is the man in the video. Therefore, the degree of (dis)similarity between ways of thinking is identical in the two cases (*Writer* and *Danger*.) However, communication only fails in *Writer*. It follows that the reason why Lingens does not understand in *Writer* is not that he and Lauben are thinking of the referent in

different ways – if that was the explanation, then there would be no understanding in the *Danger* case either.

At this stage, the SW theorist might point out that, in *Danger*, both Lingens and Lauben think of the referent as *the addressee*. But this is also true in *Writer*, since Lingens thinks that he is the addressee of Lauben’s message. So, if this element of similarity was enough for communication to succeed in *Danger*, it would also succeed in *Writer*. This is not what we want.¹⁸ So SW faces a dilemma: it might deliver the right prediction in one of our two cases, but not both at the same time.¹⁹

5 A Different Picture

So how can we solve Loar’s puzzle? In a nutshell, my hypothesis is the following: subjects involved in Loar cases are thinking about the same object, but they do not know that they are; this explains why communication fails in such cases.²⁰ If that is the right expla-

¹⁸Independently from the present work, Tayebi (2013) raises a similar objection against Recanati’s (2012) account of the communication of first-person thoughts.

¹⁹Some authors have identified modes of presentation with “vehicles” of content – see, for instance, Fodor (1998, 2008) and Schneider (2011). This idea could be employed by SW. If beliefs have non-semantic or syntactic properties as well as semantic ones – for instance, if they are representations in the Language of Thought – Lingens’s and Lauben’s beliefs could be syntactically similar in *Danger* but not in *Writer*. In turn, this could explain why communication fails in the latter case while succeeding in the former. Now, it might be correct to identify modes of presentation (ways of thinking) with syntactic vehicles, but I do not think this would help SW. In short, the problem is the following: the SW theorist must provide a reason to think that speaker and hearer employ very different syntactic vehicles in *Writer*, but very similar vehicles in *Danger*. I do not believe that the SW theorist can do that in a principled, non-*ad hoc* way, although I cannot defend this claim here for reasons of space.

²⁰I briefly sketched this hypothesis in Onofri (2018).

nation, then communication does require more than referential identity, *contra* the account of communication examined at the beginning (RI). However, this does not mean that we should follow SW and impose an additional similarity condition on communication – that would generate the problems examined in the previous sections. We should instead develop a very different kind of account, one which sees knowledge of reference as the key to linguistic understanding.

When stated in these very general and rough terms, the idea is not new. As Heck (2002, p. 22) notes, Frege himself holds that knowledge of co-reference is required for thought identity, and therefore for communication. Discussing a case in which two subjects associate different senses with a name, Frege writes:

Then as far as the proper name 'Dr. Gustav Lauben' is concerned, Herbert Garner and Leo Peter do not speak the same language, since, although they do in fact refer to the same man with this name, they do not know that they do so. Therefore Herbert Garner does not associate the same thought with the sentence 'Dr. Gustav Lauben has been wounded' as Leo Peter wants to express with it. (Frege 1918, p. 297)

One can also find similar claims in the recent literature. Heck (1995) discusses a Loar-style case involving proper names (*ibid.*, p. 95) and argues that communication requires knowledge of co-reference (*ibid.*, Sections V-VIII). Independently from the present paper, some authors have also discussed the idea in connection with Loar's puzzle. Buchanan (2014, p. 65) and Unnsteinsson (2018) both note that Loar cases involve an element of luck, while Peet (2017, p. 383) expresses sympathy for an anti-luck approach to successful communication. Since knowledge seems to require the ab-

sence of luck, these remarks also appear to support a knowledge-based approach.

Having noted that other authors express sympathy for this kind of view, it is also important to note that there is no developed solution to Loar's puzzle along these lines in the literature. For instance, Buchanan (2014) notes the analogies between Loar cases and Gettier cases (more on this soon.) However, he does not pursue the analogy and prefers to offer a different kind of account – drawing on Bach (2006), Buchanan says:

Bach's claim that such cases – which I shall suggest Loar cases to be instances of – are, in some respects, analogous to Gettier cases is plausible. I will not, however, pursue this analogy since I would like to avoid the difficult task of specifying exactly what kind of 'luck' is involved in Gettier cases. (Buchanan 2014, fn. 13)

Similarly, neither Peet (2017) nor Unnsteinsson (2018) spell out what kind of luck is involved in Loar cases or how this idea can help us generate more adequate predictions about such cases. This is the task I undertake in what follows. My objection against SW was that it cannot account for cases where communication fails while also making the right prediction about cases where it succeeds. My account will thus have to be sufficiently precise to generate specific predictions that have a better fit with the data emerging from our cases. At the same time, I will have to show that the account is not a SW view in disguise – a seemingly different view which implicitly appeals to similarity in explaining what knowledge of co-reference is. Satisfying these *desiderata* will thus require an account that is far more developed than the proposals existing in the literature.

Let us begin by considering Loar cases again. In

these cases, the hearer believes that she has correctly identified the object that the speaker is talking about – according to the hearer, her current thought is about the very same object to which the speaker is referring. Furthermore, the hearer's belief is in fact true – in Loar cases, speaker and hearer really are thinking about the very same object. Finally, the belief might even be justified if the hearer has strong evidence in favour of her interpretation of the speaker's utterance. So the hearer in a Loar case has a true justified belief about what the referent of the utterance is; yet, this belief does not amount to knowledge. Consider, for instance, Loar's original case *Stockbroker*. Here Jones believes that Smith is talking about the man on the train. This belief is true, since Smith is talking about the man on television, who is the same person as the man on the train. Furthermore, Jones's belief might be justified – suppose Smith and Jones have been having a long conversation about the professions of various people on the train and Smith does not point to the television explicitly. Even though Jones's belief is true and justified, however, he does not know that he is thinking about the same person as Smith – Smith's intention is to refer to the man on television, Jones thinks he is referring to the man on the train, and neither of them suspects that the man on television is the man on the train. A natural reaction to *Stockbroker* is that Jones has just been *lucky* – he has identified the right object, but he has done so because of a fortunate coincidence. Therefore he does not know who the referent is even though he has a justified true belief about the matter. Analogous considerations apply to the *Writer* case from Section 3. In this case Lingens believes that Lauben is referring to him, the man called 'Lingens.' This belief is true, since Lauben intends to refer to the man called 'Peter' and this is Lingens's pseudonym. Furthermore, Lingens's belief is justified, since Lauben

used the second-person pronoun in his message and Lingens received the message directly from Lauben. However, Lingens does not know who the referent is, for he has just been lucky – Lauben’s intention is to refer to the man called ‘Peter,’ Lingens thinks Lauben is referring to him, and neither of them suspects that Lingens is the man called ‘Peter’.

Loar cases thus share some essential features with the well-known “Gettier cases” that have taken center stage in many epistemological debates.²¹ Subjects in Loar cases seem to have a justified true belief that is not knowledge. Furthermore, it seems that this belief fails to constitute knowledge because it is true by luck. Since these both seem to be distinctive features of Gettier cases, there might be a significant similarity. Indeed, it would not be surprising if these two classes of cases had something in common. Communication is a collective human activity, and as such it is subject to luck. For instance, a hearer might identify the object that the speaker was talking about in a lucky way. Speaker and hearer would then reach one of their goals (thinking about the same object during their exchange) but in a way that we classify as different from other, more “normal” ways of reaching that goal. This might explain our resistance to classifying Loar cases as cases of successful communication, just like most epistemologists resist classifying Gettier cases as cases of knowledge. In both kinds of scenarios, agents achieve some significant goal, but because of an element of luck, we are inclined to distinguish them from “standard” instances of communication and knowledge.

Noting the analogy with Gettier cases is a useful starting point. By itself, however, this is clearly not enough to solve Loar’s puzzle. First of all, not everyone

²¹Gettier (1963). The literature on Gettier cases is quite large; see the essays in Hetherington (2018) for an updated discussion.

agrees on an anti-luck analysis of knowledge as the correct account of Gettier cases. For instance, Hetherington (2012, 2013) argues that knowledge is compatible with the kind of luck involved in such cases. Therefore, we cannot simply assume that an anti-luck account of knowledge is correct and then apply it to Loar's puzzle; we will have to show why the anti-luck approach to our puzzle is preferable. Second, as Dancy (1985) and Ichikawa and Steup (2017) note, any anti-luck approach must specify what kind of luck has to be excluded as incompatible with knowledge:

[...] there is a sense in which our ordinary perceptual beliefs are true by luck, since it is possible for us to have been the victim of a Cartesian demon and so we are, in some sense, lucky not to be. But unless we are to capitulate to radical skepticism, it seems that this sort of luck [...] ought to be considered compatible with knowledge. (Ichikawa and Steup 2017)

The same applies to communication. In some sense, we always need to be lucky for communication to succeed. My interpretation of an utterance might be based on excellent evidence and still be incorrect – for instance, a speaker using a demonstrative might unintentionally point in the wrong direction, leading me to a mistaken interpretation. To solve Loar's puzzle, then, we must explain what *kind* of luck is involved in Loar cases, showing that it is not the same kind of luck that is involved in ordinary communication. Similarly, anti-luck epistemologists must explain what kind of luck is involved in Gettier cases, showing that it is not the same kind of luck that is involved in ordinary perceptual knowledge. To be clear, I am not rejecting anti-luck approaches to knowledge or communication – in fact, my solution to Loar's puzzle is itself a version of

this kind of approach. I am only claiming that pointing to luck as being involved in Loar cases – or Gettier cases – is not enough to solve the problem.

Having noted the analogy with Gettier cases and the requirements that an account of Loar cases must satisfy, I will now outline my proposed account and apply it to our problem cases. On the knowledge-based theory of communication I will defend, the conditions for successful communication are:

Knowledge: A hearer H who accepts an utterance u produced by speaker S understands u iff H knows that the belief S expressed through u and the belief H formed as a result of u ascribe the same property to the same object.

In simpler terms: the hearer understands just in case she knows that she has identified the referent of the utterance.²²

Obviously, this raises the question: under what conditions does a hearer know that she has identified the referent? I will defend the following necessary condition on knowledge of reference:²³

Safe assignment: H knows that (the belief S expressed through u and the belief H formed as a result of u ascribe the same property to the same object) *only if* any false identity belief H might have is irrelevant to the truth of H 's reference assign-

²²Assuming the factivity of knowledge, adding the requirement that the hearer must also identify the right referent would be pleonastic. My account is also compatible with non-factive accounts of knowledge, but on these accounts it would be necessary to add the requirement in question.

²³The parentheses are added to avoid ambiguity with respect to scope.

ment to u .²⁴

In simpler terms: the hearer knows she has identified the referent only if the correctness of her reference assignment does not depend on one of her identity beliefs being false. In this sense, the assignment must be “safe” – its correctness must not depend on a mistake.

Combined with the “safe assignment” condition, the knowledge-based account entails that there is understanding only if the referential assignment is safe. To explain what this means and apply the account to Loar's puzzle, let us return to our cases. Consider *Stockbroker* first. Both Smith (the speaker) and Jones (the hearer) have a certain *identity belief*: they believe that the man on television is not the man on the train.²⁵

b_1 : The man on television \neq the man on the train

Applying his linguistic competence and his evidence about the context, Jones assigns a referent to Smith's utterance – he takes the man on the train to be the referent. In other words, Jones holds the following belief:

b_2 : The referent of Smith's utterance is the man on the train

In fact, Jones' first belief is false: the man on television is the man on the train. However, Smith intends to refer to the man on television. Therefore, Jones's second belief is true: the referent is in fact the man on the train. Jones's reference assignment is correct.

²⁴The condition is named after safety conditions on knowledge in epistemology – more on this later.

²⁵They might also be agnostic about this according to Loar's description of the case, but let us stick to this formulation for the sake of simplicity.

But what would happen if b_1 was *true*? If the man on television really was different from the man on the train, then Jones would assign the wrong referent (the man on the train) to the utterance. His interpretation would then be incorrect and communication would straightforwardly fail – everyone agrees that the hearer has not understood if he assigns the wrong referent to the utterance. In other words: if the world was as Jones takes it to be through b_1 , then b_2 would be false and the reference assignment would become incorrect. Therefore, Jones’ identity belief b_1 *is* relevant to the truth of his reference assignment – had Jones made no mistake in representing the relevant identity, the assignment would have been wrong. So, even though Jones’s assignment in Loar’s *Stockbroker* case is correct, it is not safe. The knowledge-based account thus predicts that Jones has not understood, which is the right result.

The *Writer* case has essentially the same structure. Upon receiving Lauben’s message in his hands, Lingens holds a false identity belief about himself – having forgotten his own pseudonym, he believes that he is not the man called ‘Peter’:

b_1 : I \neq the man called ‘Peter’

Since he has also forgotten that Lauben wants him to deliver the message to Peter, Lingens makes the following reference assignment:

b_2 : I am the referent of Lauben’s message

Again, Lingens’ identity belief is false: he is the man called ‘Peter’. However, Lauben intends to refer to the man called ‘Peter’. Therefore, Lingens’ second belief is true and his reference assignment is correct. However, if Lingens’s belief b_1 was true – if the world was as he takes it to be – the assignment would be wrong:

the utterance would then refer to the man called 'Peter', while Lingens would incorrectly identify himself as the referent. Therefore, Lingens's assignment is not safe and my account correctly predicts that he has not understood.

Let us now turn to our third case, *Danger*. As you might recall, this was a case of successful communication that the rival view SW was unable to explain. Does my account do any better? Just like previous cases, *Danger* also involves a mistaken identity belief – Lingens failed to recognize himself in the CCTV video, so upon receiving Lauben's message he holds the belief:

b_1 : I \neq the man in the video

Having received Lauben's message, he forms the belief:

b_2 : I am the referent of Lauben's message

This reference assignment is of course true, but so are the assignments in previous cases; so far, no difference has emerged. But now suppose, as we did for previous cases, that the identity belief b_1 was true and Lingens was not the man in the video. Unlike previous cases, this would *not* result in a false reference assignment – even if Lingens was not the man in the video, Lauben's message would still refer to him, the person to whom Lauben sent the text. Of course, if Lauben encountered himself in this alternative scenario and realized what happened, he would think: "I wanted to warn the man in the video, but this is somebody else's number. The person who gave me the number must have made a mistake." But this does not affect my main point: Lingens' referential assignment is correct *no matter* whether his identity belief is true or false, for he is the referent whether or not he is the man in the video. Indeed, Lauben himself would presumably

accept this – he would presumably grant that, by sending the message to the number he has been given, he has ascribed the property *being in danger* to Lingens, no matter whether Lingens is the man in the video or not. This is further evidence that, independently of whether Lingens is the man in the video, Lingens is the referent of the message. As we have seen, this is not what happens in Loar cases, where the referential assignment is correct *only if* the identity belief is false.²⁶

In sum, Lingens’s referential assignment meets the “safe assignment” condition on knowledge of reference: his reference assignment is not only correct, it is also safe. Therefore, on my knowledge-based account, Lingens *knows* that he has identified the referent of the utterance. He has, therefore, understood; which is the correct prediction. My account thus predicts that communication will fail in Loar cases (*Stockbroker* and *Writer*), but not in cases like *Danger*. It is, therefore, preferable to SW, which cannot account for all the data.²⁷

We are now in a position to answer one of our cen-

²⁶We might even apply Kripke’s (1977) famous distinction between “speaker’s referent” and “semantic referent” to the *Danger* case, holding that the speaker’s referent is the man in the video and the semantic referent is the man receiving the message. Again, this would not affect my main point: in *Danger*, the assignment of a semantic referent is correct independently of whether Lingens’s identity belief is true or false; in Loar cases, on the contrary, the assignment of a semantic referent is only correct if the relevant identity belief is false.

²⁷Strictly speaking, the “safe assignment” condition was only stated as a necessary condition on knowledge of co-reference – obviously, there will be further necessary conditions of this kind. Therefore, I have not offered a complete account about the conditions under which knowledge of co-reference obtains. However, the “safe assignment” condition is enough to generate different predictions about our three cases, for it is only violated in the first two cases. So my account still has a better fit with the data than SW.

tral questions: what kind of luck is involved in Loar cases? In what way is the hearer lucky? In short, the hearer in a Loar case is lucky because an actual mistake she made prevents or “cancels out” another mistake, one that she would have otherwise made. More precisely: because the hearer made a wrong identity judgment, the right referent is assigned; had the hearer’s identity judgment (b_1) been correct, the reference assignment would have been wrong. Therefore, we clearly cannot credit the hearer for the correct assignment that she actually makes, since it is due to a mistake that she unintentionally committed. This shows that the kind of luck involved in Loar cases is very different from “ordinary” luck involved in successful communicative exchanges. As noted above, any hearer who understands successfully has been lucky in some sense. However, the kind of luck exploited by the ordinary hearer is very different from the one involved in Loar cases. The hearer in a Loar case assigns the right referent because of a mistake she made about certain identity facts; an ordinary hearer does not rely on a mistake of this kind to make the right assignment. If both hearers are lucky, then they are lucky in very different ways.

It is also essential to specify in what way my account is different from the accounts I criticized in previous sections: RI – the purely referentialist account examined in Section 1 – and SW. My view is obviously different from RI since co-reference is not enough for understanding – the hearer must also know that co-reference obtains. The picture is also importantly different from SW since knowledge of co-reference does not require speaker and hearer to think of the referent in similar ways. For instance, in *Danger* Lauben thinks of the referent as the man in the video, while Lingens does *not* think of the referent in that way, for he believes he is not the man in the video. Lingens might

instead think of himself in a first-person way; as the man called “Lingens”; and/or in some other ways; but none of these ways of thinking need be accessible to the speaker for communication to succeed. Despite their different ways of thinking about the referent, however, Lingens knows that he is thinking about the same person as Lauben. Therefore, my account correctly predicts that he understood. This is not what happens on SW, where insufficient similarity should result in communication failure. According to SW, Loar cases involve misunderstanding because of insufficient similarity; according to my view, they involve misunderstanding because the hearer does not know that she has identified the right referent. This is a fundamental difference between the two approaches.

Before moving on to the next section, I would like to add some points of clarification. First, let me address the connection between my proposal and existing approaches to the Gettier problem in epistemology. Obviously it would be impossible to do so in a comprehensive way, so I will limit myself to some brief remarks. My solution to Loar’s puzzle is a version of the anti-luck approach which has been extremely influential in recent epistemological debates.²⁸ To flesh out the kind of luck that I take to be incompatible with understanding, I have imposed a safety condition on knowledge of co-reference. Safety conditions on knowledge are popular in epistemology²⁹ and my account can be seen as a version of this approach. Now, one standard formulation of the safety condition on knowledge is the following:

²⁸See Pritchard (2005), Unger (1968), Zagzebski (1994).

²⁹See Sosa (1999), Williamson (2000). For reasons of space, I cannot discuss the connection between anti-luck approaches and safety approaches here – I take safety to be a natural way to spell out an anti-luck condition, but other options are certainly possible.

Safety: In all nearby worlds where S believes that p , p is not false. (Ichikawa and Steup 2017)

My “safe assignment” condition is not meant to be an alternative to this standard formulation; on the contrary, it is a specific instance of it. Any theory based on safety must specify how to decide which worlds are “near”, so my approach faces the same challenge. The “safe assignment” condition is meant to address this challenge in the context of Loar’s puzzle. My condition makes clear that, when we evaluate the safety of a referential assignment, we must consider those worlds where identity facts are different – for instance, worlds where the man on the train is different from the man on television. As we have seen, assignments made in Loar cases go wrong in these worlds, while assignments made in cases of successful communication do not. Focusing on these worlds thus allows us to explain the difference between the “bad” and the “good” cases. Therefore, my “safe assignment” condition is a way to fruitfully apply the general safety approach to the specific problem we are trying to solve.

Safety is a modal condition on knowledge; my account might be compatible with alternative modal conditions, but this is not an issue I can address here. However, I do want to note that not all approaches to Gettier’s problem will be equally good for my purposes. For instance, one of the early attempts to solve the Gettier problem was to apply a “No False Lemma” condition – S knows that p only if her belief that p is not inferred from any falsehood.³⁰ This attempt is often rejected as unsuccessful, for many Gettier cases do not seem to involve any such inference (Ichikawa and Steup 2017). Luckily, my view is not a version of this approach. For instance, Jones’s reference assignment in *Stockbroker* is not inferred from his false

³⁰See Armstrong (1973).

identity belief (*man on television* \neq *man on train*), but from Jones's evidence about the context, the linguistic conventions of English, and so on. No False Lemma approaches would thus be unable to explain why Jones does not know that co-reference obtains; a safety approach can explain that. In conclusion, some theories of knowledge will be more useful than others when dealing with Loar's puzzle.

I would also like to clarify the connection between my view and the semantics of indexicals. According to an influential tradition,³¹ indexicals are rigid. This means (roughly) that an indexical refers to the same object in any possible world. Now consider one of our problem cases, such as *Writer*. Lauben utters: 'You are a great writer'; as a result, Lings utters: 'I am a great writer.' By hypothesis, both utterances refer to Lings. Assuming the rigidity of indexicals, then, both utterances refer to the same object (Lings) in all possible worlds. However, I have claimed that, at worlds where Lings is not called 'Peter,' Lings's referential assignment would be incorrect – at such worlds, Lauben's utterance would refer to the man called 'Peter', while Lings's utterance would refer to himself. Therefore, the two utterances would have different referents at these worlds. Conclusion: my account is incompatible with rigidity.

However, the conclusion does not follow.³² Call the actual world *a*; call the world where Lings is different from the man called 'Peter' *w*. Rigidity does entail that Lauben's and Lings's indexical utterances refer to Lings in both *a* and *w*. What this means, however, is the following: given the content that the two utterances have *when made at a*, both of them are

³¹See for instance Kaplan (1989 a,b).

³²Kripke (1972/1980) makes a similar point. This kind of worry would be more fully and rigorously addressed by introducing a two-dimensional framework like the one that Kaplan himself uses, but I will leave this aside for reasons of space.

true just in case Lingens is a great writer, no matter whether Lingens is called 'Peter' (as in *a*) or not (as in *w*).³³ On the other hand, it does not follow from rigidity (and it is not true) that, given the content that the two utterances have *when made at other worlds*, both of them are true just in case Lingens is a great writer. More specifically, if the two utterances were made at *w*, they would have different contents while still being rigid – Lingens's utterance would rigidly refer to Lingens, while Lauben's utterance would rigidly refer to the distinct individual who is called 'Peter' at *w*. And all my account requires is that, given the content that the two utterances have as made at *w*, they refer to different individuals. This, as we have just seen, is perfectly compatible with the rigidity of indexicals.

6 Other approaches to Loar's puzzle

Let me now briefly compare my approach with other accounts of Loar cases. I have already argued against one kind of alternative account – the SW model that various authors (including Loar himself) have proposed as a solution to Loar's puzzle. But this is not the only alternative option. For instance, Buchanan (2014) applies a broadly Gricean framework to account for Loar cases without having to embrace Loar's descriptivist semantics for singular terms. Buchanan's attempt then generated responses by Peet (2017) and Unnsteinsson (2018), who also propose solutions that cannot be reduced to SW. Let us examine each of these views in turn.

The first step in Buchanan's solution is to apply a Gricean perspective to the communicative exchanges involved in Loar cases:

Early on, Grice realized that when an agent

³³Here I use 'content' in the Kaplanian sense: a function from possible worlds (circumstances) to extensions.

performs an act of meaning there will invariably be some or other feature of her production that she expects her audience to recognize it as having, and to make essential use of in inferring what she meant. [...] call this an *ib-feature* (i.e., the ‘inference-base’). (Buchanan 2014, p. 63)

In order for communication to succeed, Buchanan says, it is necessary for the hearer to recognize that the speaker intends her to recognize the relevant *ib-feature* and use it to interpret the relevant utterance. This is why communication fails in Loar cases. For instance, in Loar’s *Stockbroker* case

[...] Smith intends his audience to recognize the male to whom he is referring by his use of ‘he’, in part as a result of its being common ground between him and his audience that *there is a particular man, o, being interviewed on the TV right in front of them*. This bit of information, which Smith (mistakenly) takes to be common ground between himself and his audience, is an aspect of the relevant *ib-feature* that he intends his audience to recognize, and to use in recognizing his referential intention. His audience, of course, fails to recognize this intended *ib-feature*, and in so doing, fails to fully recognize Smith’s communicative intention [...]. Though his audience, Jones, correctly identifies the object to which Smith is referring, there is a crucial aspect of Smith’s referential intentions in using ‘he’ that Jones fails to appreciate. (Buchanan 2014, p. 67)

Buchanan is certainly right in pointing out that hearers in Loar cases fail to recognize an important aspect

of the speaker's intentions – indeed, this is part of the setup of Loar's puzzle. It is also likely that this plays a role in explaining our response to Loar cases. However, I believe Buchanan's solution does not go far enough. While Buchanan holds an anti-descriptivist semantics for singular terms, he claims that descriptive information is included in the common ground and that failure to use such information explains why communication fails in Loar cases. This is dangerously close to SW – even if descriptive “ways of thinking” are not part of the semantics, they still play a decisive role in determining communicative success. More specifically, it follows from Buchanan's account that the information that the hearer uses in identifying the referent must be sufficiently similar to the information that the speaker wants her to use – in *Stockbroker*, for instance, this information is: *there is a particular man being interviewed on television...* If the hearer must identify the referent in a way that was intended by the speaker, the information she uses must be similar to the information that the speaker intended her to use.

Unsurprisingly, then, Buchanan's proposed solution suffers from the same shortcoming as SW: its conditions for communicative success are too strict.³⁴ Consider again our *Danger* case. Since communication succeeds in this case, Buchanan's condition must be satisfied – the hearer must be arriving at the right referential assignment in virtue of information that the speaker intends her to use. But *what* information? The speaker (Lauben) does not know how the hearer (Lingens) thinks of himself. Lauben thinks of Lingens as *the man in the video who looked so-and-so...* However, Lauben will also realize that Lingens need not think of himself in that way – the image Lauben saw on CCTV might fail to resemble any perceptual im-

³⁴This is also part of Peet's (2017) objection against Buchanan, although he uses a different kind of argument.

age of himself that Lingens stored in his own memory. In fact, this is exactly what happens: Lingens's image of himself does *not* resemble Lauben's image of him, for Lingens does not recognize himself in the CCTV video. So using this perceptual information cannot be a condition on successful understanding, or communication would fail. But then what *is* the information that Lauben wants Lingens to use?

One option is to adopt a weaker condition – Lauben simply wants the hearer to identify the referent on the basis of information like: *there is someone to whom this text message is addressed*. However, if this is the kind of condition that must be fulfilled, the account becomes too lax. For instance, the hearer in *Writer* (Lingens) will now turn out to understand the utterance, for he does realize that Lauben's message is addressed to its referent, just like any hearer who is linguistically competent with the second-person pronoun. However, *Writer* is a case where the hearer has clearly failed to understand. Buchanan thus faces the same dilemma as SW: on both accounts, achieving communicative success is either too hard or too easy.

Let us now turn to Unnsteinsson's (2018) view. Discussing Buchanan's solution, Unnsteinsson notes that Loar-style cases can be construed in different ways, depending on whether the subjects involved know the relevant identity. According to Unnsteinsson, if the identity is not known then Buchanan's account will fail to deliver the right prediction. Clearly, I agree with Unnsteinsson on both of these points – in particular, note that all Loar cases discussed in this paper have been construed as involving a false identity belief. However, Unnsteinsson then goes on to propose the following alternative solution:

We now have a fairly precise description of the facts giving rise to recalcitrant cases – namely, that the speaker must have rele-

vant false beliefs about the identity of the object seemingly referred to [. . .]. The idea is that lacking such false beliefs at the time of utterance can be a condition on the proper functioning of the underlying mechanism of singular communication. In trying to refer to an object *o*, one underlying goal or assumption of speakers is that there is no contextually salient *x* such that they believe falsely that $x = o$. One legitimate idealization, it seems, is to refuse to assign a unique referent to utterances for which the assumption is false [. . .] it is in the nature of the speech act of singular reference that having specific false beliefs about identity can make it impossible for a speaker to perform the act properly. (Unnsteinsson 2018, pp. 614-15)

Unnsteinsson's claim that speakers in Loar cases fail to produce utterances with a unique referent appears implausible. To see why, consider first a simple variation on Loar's original *Stockbroker* case. Suppose Jones realizes that Smith intends to refer to the man on television (for instance, suppose Smith points to the television explicitly.) Under these circumstances, Smith and Jones's false identity belief (*man on train* \neq *man on television*) would become simply irrelevant – Smith intends to refer to the man on television and Jones knows that, so neither of them will even entertain the description *the man on the train* during the exchange. In this version of the case, then, there is no reason to think that the false identity belief affects Smith's ability to refer, for that belief is irrelevant in this context.

Now, Unnsteinsson might reply that, under these circumstances, the false identity belief is not "salient" anymore; therefore, the condition he imposes is satisfied and Smith succeeds in referring, while the original

Stockbroker case still involves reference failure. The problem with this reply is that, as far as the speaker is concerned, nothing has changed in the two versions of *Stockbroker*. The only difference has to do with Jones, the hearer, who fails to understand Smith's intention in the original case, but not in the modified one. Therefore, it follows from Unnsteinsson's account that a mistake made by the *hearer* can turn a successful act of reference by the *speaker* into an unsuccessful one. Speakers would thus rely on the hearers' ability to represent their intentions correctly in order for their own utterances to refer successfully. This seems implausible in itself, but it also has further consequences – for instance, successful reference cannot be achieved if *any* of the recipients of the message gets the speaker's intentions wrong. If this was right, referring successfully to an object would be much harder than it actually seems to be.

Peet (2017) also rejects Buchanan's proposal. He does not develop an alternative account of Loar cases, but at the end of his article he says:

Both Loar's and Buchanan's approaches involve postulating a factor in virtue of which agents must come to assign matching referents. Loar holds that referents must match in virtue of agents assigning the same sense to a term. Buchanan holds that referents must match in virtue of the audience attending to the speaker's intended *ib*-feature. I am sceptical as to whether any such account can work, as I suspect it will always be possible to construct a case in which the right referents are assigned, and the specified further conditions are met, but in which an element of luck intervenes. Rather, I am sympathetic to a pure anti-luck approach, similar to the anti-luck views of

knowledge advocated by Pritchard (2005).
(Peet 2017, p. 383)

While moving from different starting points, then, Peet and I independently arrive at a similar hypothesis about the structure of Loar cases. Peet sketches that hypothesis in passing; one of my main goals in this paper has been to develop the hypothesis into a full-fledged solution to Loar's puzzle.

7 Conclusion

I started by discussing an account of communication (RI) on which understanding only requires co-reference. Then I discussed Loar cases, which are traditionally thought to refute RI and motivate an alternative account, SW. On SW, understanding requires co-reference *plus* sufficient similarity in ways of thinking. I considered a first version of SW, on which ways of thinking determine reference, and argued that it does not work. In the following section, I examined a different SW account and argued that it still yields incorrect predictions. Then I proposed a different explanation of Loar cases, seeing them as cases of luck where the hearer has a justified true belief that co-reference obtains, without that belief amounting to knowledge. Finally, I concluded by contrasting my account with other approaches to Loar's puzzle.

Loar's challenge has been traditionally used to motivate similarity-based pictures of understanding and communication. One of my goals has been to turn the tables and show that the puzzle is actually a major stumbling block for those pictures. I have then provided an alternative account of communication, one where similarity does not play any significant role. This might seem a parochial discussion on a very specific puzzle, but I believe this impression is incorrect. Surely, solving Loar's puzzle is not the only *desider-*

atum for a theory of communication, but it is nevertheless a significant one. Similarity-based pictures have been extremely influential in a number of areas, from philosophy of language to philosophy of mind and cognitive science. If my arguments in this paper are correct, we need to start considering some alternatives to similarity, both within the debate on communication and within other philosophical discussions. This, I think, is the broader significance of Loar's puzzle.

7 References

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