

# Comprehension, Acceptance and Justification

Applying pragmatics to the epistemology of testimony

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Though philosophy is the chief conductor or orchestrator of epistemology, many other disciplines - including empirical disciplines - are important parts of the ensemble. (Goldman, 1986, 1)

The epistemology of testimony is a fascinating and relatively neglected subject. It lies at the confluence of two central concerns of philosophy: the nature of knowledge, and that of language. For this reason asking oneself questions about it is one way of trying to advance one's understanding of these central topics – although, by the same token, one will not get straight about it until one has developed a general account of both of them. (Fricker, 1987, 57)

...the question of whether to believe something you are told is not altogether separate from figuring out what it is, if anything, that you are being told. (Bach, 2008, 78)

## Abstract

*The main question discussed in current debates about the epistemology of testimony concerns whether the justification of testimonial beliefs is inferential or non-inferential. This thesis offers a novel argument for inferentialism, the former view. It does so through, firstly, assuming a widely shared view about the psychology of comprehension – the inferential model of communication – along with widely shared views about the epistemic basing relation and inferential justification, and then, secondly, arguing that inferentialism in the epistemology of comprehension - the view that (i) comprehension states are beliefs, and (ii) that the justification of such states is inferential - follows from these assumptions. It is then argued that inferentialism in the epistemology of testimony follows from inferentialism in the epistemology of comprehension. Through offering this argument, the thesis aims to demonstrate that our views about the psychology of comprehension have far-reaching consequences for our theorizing in the fields of epistemology of testimony and epistemology of comprehension. In fact, widely held such views arguably have as a consequence that neither testimony nor comprehension are sources of non-inferential justification, an important epistemological insight.*

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Comprehension and Justification: Applying pragmatics to the epistemology of testimony

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## Introduction

An important source of beliefs about the world is communication with others. I believe that Earth is about 4.5 billion years old; that I was born on November 19<sup>th</sup>; that Sir Thomas Browne lived in Norwich; that Addis Ababa is the capital of Ethiopia; and that there are traces of ancient rivers on Mars; and so on. I believe all this because other people have told me: by making marks and by producing sounds, through face-to-face conversations, letters, books, newspapers, the Internet, television reports, and so on, they have expressed propositions and thereby made them available for me to believe. I have understood their utterances and trusted them, and thereby acquired beliefs the contents of which are those very propositions. It is beyond doubt that many, if not most, of our beliefs stem in this way from the testimony of others. It is also beyond doubt that many of our *justified* beliefs and much of our knowledge stem from the testimony of others. The practice of giving and taking testimony is a crucial epistemic link, without which science, culture and society on the whole would be impossible. Our ability to acquire knowledge and justified beliefs on the basis of testimony is underwritten by our ability to comprehend particular utterances. If you tell me that there is more cider in the cellar, I cannot come to know or justifiably believe this through your telling unless I understand what it is that you are saying: I must take you to be saying that there is more cider in the cellar. This state of comprehension of the utterance seems to play an essential part in my acquisition of the belief.

This thesis aims to investigate the role such comprehension of particular utterances plays in the acquisition of justified beliefs from testimony: it aims to investigate the relations between the psychology and epistemology of comprehension and the epistemology of testimony - an area which is largely left uninvestigated in recent debates about testimony<sup>1</sup>, even though our views about the psychology and epistemology of comprehension seemingly have important consequences for our theorizing in this field<sup>2</sup>. The thesis aims to pay due respect to Fricker's important observation that

our account of the epistemic status of testimony-beliefs must mesh with our account of a closely related matter: how it is that [the hearer] understands what she hears, what is involved in this, and if – as seems plausible – it entails knowing that she has been told by [the speaker] that P, how this epistemic feat is achieved. Thus an epistemology of testimony needs to be complemented by an epistemology of understanding. (Fricker 2004, 110)

<sup>1</sup> For important exceptions, see Bach 2008, Bezuidenhout 1998, Burge 1993, 1997, 1999, 2011, Fricker 2003, Jack 1994, Longworth ms, 2008, Malmgren 2006, Origg 2004, and Rysiew 2007.

<sup>2</sup> Historically, the epistemology of testimony is itself an insufficiently investigated area. As Burge notes "it has been treated as a specialized topic – more a curiosity than the hugely central matter that it actually is" (Burge 2013, 26). The starting point of the modern debate is Coady's 1992, but modern positions can be traced back to certain sections of Hume's *An Enquiry concerning Human Understanding* (1977 [1748]) and Reid's *An Inquiry Into the Human Mind On the Principles of Common Sense* (2000 [1785]).

As will be shown in the thesis, an investigation into this intersection will yield part of the answers to questions about, firstly, the conditions under which a testimonial belief counts as justified. In our example, for instance, what conditions must be in place for the belief that there is more cider in the cellar to count as a justified belief? Secondly, it will yield answers to questions about the conditions under which a comprehension state counts as justified. What conditions must be in place for my state of taking you to be saying that there is more cider in the cellar to be justified? And thirdly, the investigation will yield answers to questions about the nature of comprehension states.<sup>3</sup> What is the nature of my state of taking you to be saying that there is more cider in the cellar? The answers will yield a greater understanding of comprehension as a source of justification, and hence of a distinctively human capacity for rational belief formation. It will yield answers to a central question in epistemology: What sort of justification is testimonial justification? Is it a species of inferential justification – the kind of justification that one gets through acquiring a new belief on the basis of a series of beliefs that one already had – or is it a species of non-inferential justification – the kind of justification that one gets through acquiring a new belief on the basis of a perceptual experience?

The starting point for the discussion will be a certain view of the psychology of comprehension: the inferential model of communication, which I will set out in chapter 1. The core tenet of this model is that in order to comprehend a particular utterance - that is, grasp the proposition or propositions expressed by it - the hearer must make an *inference to the best explanation*. It is not enough, for instance, to semantically decode the utterance: this will not yield the proposition expressed. In addition to taking into account the semantic material (if any), the hearer must consider *pragmatic* factors, which may include background beliefs, beliefs about the communicative situation, beliefs about the intentions of the speaker, and so on. The motivation for this view derives partly from the fact of deep context-dependence and, relatedly, semantic underdetermination: The semantic material of an utterance underdetermines the proposition expressed by it. Something must bridge this gap between semantic material and the proposition expressed: The most plausible suggestion seems to be that this is done by an inference. The thesis will assume the inferential model, and the aim is to see what follows from it as regards the epistemological questions above. The inferential model is a view of the *psychology* of comprehension – a causal account – not its epistemology. As will become clear, as the thesis attempts to draw epistemological consequences from certain views about psychology, the relations between the causal and the epistemic will be an important matter.

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<sup>3</sup> Whether questions about (ii) are legitimate depends partly on the answers one gives to questions about (iii): on some views, comprehension states are perceptual states or quasi-perceptual states (see for instance Fricker 2003). If so, it makes little sense to ask about the conditions under which such states counts as justified, since, if certain common assumptions are made, justification does not apply to such states. I will return to this at several later stages.

The first epistemic consequence of the inferential model, it will be argued in Chapter 2, is that the epistemology of comprehension must be *inferential*. This amounts to the claim that comprehension states are inferentially justified. This will be argued to be the case by showing that comprehension states are based on *reasons*. Reasons are input doxastic states of the subject that function to rationally support a given output doxastic state. To establish that a given doxastic state, e.g. a belief, is based on a reason, one must show that the epistemic basing relation holds between them – in that case, the reason is a reason for which the belief is held, not only e.g. a reason *why* it is held. The thesis then assumes, as is standard, a causal account of the epistemic basing relation. This account holds that a belief is based on a reason if and only if it is non-deviantly caused by that reason (this and further epistemological assumptions are set out in chapter 1). The case can then be made that, in comprehension, because it is inferential, a set of input doxastic states non-deviantly cause an output state. This is the claim of the inferential model of communication. Since the output of the inferential process involved in comprehension is the comprehension state, it seems that the comprehension state must be based on a reason. If that is so, the comprehension state is inferentially justified, since whether it is justified depends on the justification of the reason on which it is based. Those reasons are the states that are the inputs to the pragmatic inference.

The second epistemic consequence of the inferential model is argued, in Chapter 3, to follow from the first, along with a few other assumptions. This is the conclusion that the epistemology of testimony must be *inferential*. This is the primary aim of this thesis: To show that *testimonial foundationalism* is false, the view that testimonial beliefs are epistemically non-inferential or basic. The reasoning will largely mirror that of the argument for the first consequence: By arguing that testimonial beliefs must be based on a reason, one shows that they are inferentially justified. Arguing that testimonial beliefs must be based on the outputs of comprehension – the outputs of comprehension must play a role in non-deviantly causing the beliefs – I propose, can show this. But the first consequence is that the output of comprehension – the comprehension state – is a doxastic state that is inferentially justified. If that is so, it seems that the testimonial belief is reason-based. If testimonial beliefs are reason-based, they cannot be basic<sup>4</sup>. The second consequence is thus that testimony cannot be a source of basic beliefs: It is the epistemically important point that receiving testimony is necessarily inferential.

I will then, in Chapter 4, argue that the view that testimonial beliefs are necessarily inferential has a bearing on the central debate in the epistemology of testimony, that between reductionists and anti-reductionists. This debate concerns whether testimonial justification is *sui generis*, such that we must introduce an epistemic principle specific to testimony, hence that it cannot be reduced to other

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<sup>4</sup> A basic belief is a belief that is not based on one or more other beliefs (cf. Audi 2011, 155).



sources of justification, or whether it can be so reduced: whether testimonial justification can be explained in terms of e.g. perceptual or and inferential justification. I shall suggest that the latter view is favoured by inferentialism: testimonial belief acquisition is argued to be an instance of an inference, and if that is true, introducing an epistemic principle particular to testimony is superfluous – we can treat testimonial justification the same way other types of inferential justification is treated, namely by general principles of inferential justification.

It seems, then, that the thesis will be in a position to provide part of the answer to the question of the conditions under which a testimonial belief counts as justified: it must, at least partly, be based on a comprehension state that is itself justified; and to the question of the conditions under which a comprehension state counts as justified: it must, at least partly, be based on doxastic states (the inputs to the pragmatic inference) that are themselves justified; and to the question of the nature of comprehension states: they must be doxastic, since they are the output of an inferential process. All of these results are very controversial: A standard view is that “[t]ypically, we simply understand what is said and believe it” (Audi 2006, 27). Further, as regards testimonial belief, a widespread view is that “testimony-based belief [...] as I think it is normally understood, is never inferential” (*ibid.*), and as regards comprehension states, an increasingly common view is that they are “experiential states, states of immediate awareness” (Hunter 1998, 577) (such a view seems to be assumed without argument in much of the testimony debate). As phenomenological points, these might ring true, but, as I will argue in the thesis, as a view about the psychology or epistemology of testimonial belief formation, they are false. Further, the thesis will be in a position to suggest an answer to the question of whether testimonial justification can be reduced: if testimonial belief acquisition is an inference, it is most parsimonious to treat its justification as a general instance of inferential justification.

A large part of the thesis will be to defend my account of testimonial justification, which will be done primarily in Chapter 5. Some will disagree strongly as regards the inferential model of communication (see for instance Recanati 2004, and Burge 1999). I will not be concerned with such objections, since the inferential model is a starting point for the thesis. Some will, however, object that the inferences in question are not epistemically relevant, since they are unconscious. Responding to this objection is central to my thesis: I want to allow for the view that the inferences involved in the comprehension of utterances are unconscious. To the objection I will respond that reasons on which beliefs are based can be unconscious but nonetheless epistemically relevant. Here I will draw on work by Burge (see for instance his 2011, 490) and Audi (see for instance his 1993, 21 and 228). I will argue that a process can be unconscious, automatic, implicit, and spontaneous, yet be epistemically relevant: it can count as a piece of reasoning.

My thesis will show that comprehension is not an absolute starting point (cf. Burge 2013, 350-351; McDowell 1998, 418). Being in a comprehension state is a mediated standing in the space of reasons. If the psychology of comprehension is inferential, comprehension, which serves as input to testimonial belief-forming processes, itself requires support from reasons. It follows from this that testimony also cannot be an absolute epistemic starting point. To summarize, the Master argument can be stated schematically as follows:

1. If the psychology of comprehension is inferential, then the justification of comprehension states is inferential.
  2. If the justification of comprehension states is inferential, then the justification of testimony-based beliefs is inferential.
  3. The psychology of comprehension is inferential
- 
4. The justification of testimony-based beliefs is inferential.

## Chapter 1: Assumptions

I have four main aims in this chapter: (i) to set out the central concepts as I will understand them throughout the thesis, (ii) to give a presentation of the debates in which I am taking a stand, and the positions I will be arguing for, (iii) to present the main assumption of the thesis, namely the inferential model of communication, and (iv) to show that the epistemologies of comprehension and testimony must track speaker meaning. Aim (i) will be accomplished in sections 1.1 to 1.5, aim (ii) in sections 1.2 to 1.4, aim (iii) in section 1.5, and aim (iv) in section 1.6. This chapter is mainly expository. I offer some motivations, but no full arguments: the assumptions presented are points of departure. In section 1.7 I offer a summary of Chapter 1.

### 1.1: Epistemological Assumptions

#### *Justification*

This thesis advances a view about the justification of testimonial beliefs, and about the justification of beliefs about what is said. I am interested in what it takes for such beliefs to be justified. My arguments may be extended to other epistemic properties, but I will not do so in the thesis. I begin with an exposition of what I mean by ‘justification’. Justification is a positive epistemic status that applies to beliefs when they fulfill certain conditions. Positive epistemic statuses “are goods, successes, fulfillments, or achievements understood in terms of promoting true belief and avoiding error” (Graham 2010, 148). Believing what is true and avoiding believing what is false is the fundamental epistemic aim: and when we make epistemic assessments, this is the aim against which

they are made – we are making an evaluation from the “epistemic point of view” (Alston 1989, 3. Set out further in his 2005, chapter 2). Now, to distinguish justification from other positive epistemic statuses, we must impose certain constraints<sup>5</sup>. It is the task of the theory of justified belief to spell out those conditions in general, in addition to spelling out what justification *is*. My construal is intended to be theoretically neutral - I intend my views to be compatible with a range of theories of what justification *is* as well as a range of theories of conditions for a belief to be justified, but it will appear below that I make certain claims which may be incompatible with certain accessibility internalist views. On my construal, your belief that P is justified iff you are in a position where it is epistemically appropriate for you to believe P (following Pryor’s 2005 construal) The things that make it epistemically appropriate for you to believe something are truth-conducive grounds: grounds that indicate that the belief is true. What grounds are is set out below. In the testimony literature, as in epistemology in general, authors sometimes use ‘justification’ to denote whatever it is that elevates true belief to knowledge (or something close; see Lackey 2008, 9). Another common term for this property is ‘warrant’<sup>6</sup>. This is not the use I will make of these notions in this thesis. I will use the term ‘justification’ to denote a property of belief that is of the kind the subject of a Gettier case might have: it is insufficient for warrant in the above sense (Gettier 1963). To take a testimony case, suppose Susan testifies to the fact that the house is on fire, but that she has just made this up – but by luck it is true. In this case, if there are no defeaters, you can certainly acquire justified true belief that the house is on fire from Susan’s testimony, even though one cannot come to know it. Even though Susan is unjustified in believing that the house is on fire (or does not even believe it), she can be “credible to you in such a way that *you* can become justified in believing this on the basis of [her] attesting it to you” (Audi 2011, 156). The question of whether such justification is necessary for warrant in the above sense or for knowledge is an open question, as is the question of exactly what is required for such justification. I maintain, however, that the grounds for beliefs are relevant to their justification. This should be uncontroversial<sup>7</sup>.

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<sup>5</sup> Some, e.g. Alston (2005), claim that there is no single concept *justification*: in his view, epistemologists in seeming disagreement over this notion have been considering a wide array of different epistemic desiderata: including being based on adequate evidence, being formed by a reliable belief-forming process, being formed by the proper function of the subject’s cognitive faculties, and so on. The quest to find a theory of justification should be abandoned. I am sympathetic to Alston’s view, but I will continue to employ the notion of justification, as I want to take a stand in debates that concern this notion.

<sup>6</sup> For this construal of warrant, see Plantinga 1993. This use of ‘warrant’ must be distinguished from Burge’s use of the term, which we will return to later in the thesis. His usage “allows true warranted belief that is not knowledge”. His notion corresponds roughly to my use of the term ‘justification’. He takes his understanding, and I think he is right, to be more standard (Burge 2003, 509 fn 6).

<sup>7</sup> A form of reliabilism may want to deny that the reasons for which a belief is held are relevant to whether that belief is justified: the only thing that matters is that the belief be reliably produced. But on such a view, a distinction is still made between inferential and non-inferential justification in terms of whether the process that produced the belief was belief-independent or not. A belief produced by a belief-dependent process would be inferentially justified (see Goldman 2006). My conclusion can be restated in such a framework: my conclusion would be that both comprehension and testimonial belief fixation processes are belief-dependent, and hence beliefs produced by them are inferentially justified.

Grounds are things that beliefs can be based on: I follow Alston (2005) in construing it as a functional notion. Amongst grounds may be propositional states, for instance beliefs – these I call ‘reasons’ – and non-propositional states, for instance perceptual experiences: on the one hand there are doxastic grounds, on the other, there are nondoxastic grounds. I do not claim that all justified beliefs must be based on reasons (in a narrow sense to be specified) (claiming this would be a denial of foundationalism). Neither do I claim that all beliefs must be based on grounds – there *might* be groundless beliefs. I do, however, claim that

- (I) if a belief is based on a reason, then that reason is relevant to the justification of the belief in the sense that whether the belief is justified depends upon whether the reason is justified. If the belief is based on a reason, the belief is inferentially justified. If not, the belief is immediately justified.

This claim will be important later in the thesis. It follows from it that all it takes to show that a given belief or doxastic state that is justified is *inferentially* justified is to show that it is based on a reason, and this is precisely what I will do in the case of comprehension states and testimonial beliefs.<sup>8</sup> Now, if a belief is based on a ground that is not a reason – if it is a nondoxastic ground, the belief is immediately justified. In order to have inferential justification, a subject must be able to think the proposition that is the content of the reason for which the belief is held. That is to say that the person must have the concepts required to think the proposition. This is not to say that the person must occurrently think it: it is enough that the proposition is a content of a mental state standing in an appropriate relation to the target belief – that it is operative in the subject’s psychology (not necessarily in her accessible psychology: we return to this below). In order for the target belief to derive its justification from other beliefs, those other beliefs must be justified. These may derive their justification from yet other beliefs, or from a non-inferential source of justification – from a ground that is not a reason; an experience, for instance. To take a simple example:

Suppose you look at the gas gauge of your car, and it appears to read “E.” So you have justification to believe:  
 (Gauge) The gas gauge reads “E.”  
 That, together with other things you justifiedly believe about your car, gives you justification to believe:  
 (Gas) Your car is out of gas. (Pryor 2005, 204)

Here, (Gauge) seems to be justified on the basis of a ground that is not another belief, while (Gas) depends for its justification on (Gauge) and the other beliefs. What makes it the case that (Gauge) and other beliefs make you justified in believing (Gas)? It seems that the contents of the beliefs from which (Gas) derives its justification must make the target belief more likely to be true, perhaps through there being probability-raising relations between the propositions that are the contents of the basis belief and the proposition that is the content of the target belief. For a given belief to be

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<sup>8</sup> As Turri (2011) shows, however, basing a belief on a good reason does not necessarily secure one justification for one’s belief. It may happen that it is not based on those good reasons *in the right way*. And as Pryor (2005, 203) notes, “you need to be taking proper account of any evidence you have that tells against or undercuts your grounds for believing P”. I leave these qualifications implicit from now on.

justified, it seem that there must be such relations. But for some theorists, it is not enough that one believes  $q$  and believes  $p$  and that  $q$  makes probable  $p$ , one must also “grasp” the connection between  $q$  and  $p$ ”. Some even claim that the person must (justifiably) believe that the contents of the base beliefs make probable the content of the target belief. But as Feldman notes:

This [requirement] seems to over-intellectualize the situation, since people seem not to grasp such matters routinely, and it invites a troublesome infinite regress if requiring this "grasp" of the evidential connection amounts to requiring the justified belief that  $e$  supports  $p$ . (Feldman 1992, 350-351)

Thus, I reject the second clause of Fumerton’s Principle of Inferential Justification (Fumerton 1995, 36): the claim that to be justified in believing one proposition  $P$  on the basis of another proposition  $E$  one must be justified in believing that  $E$  makes probable  $P$ . If we accept this condition, the threat of infinite regress quickly ensues<sup>9</sup>. Moreover, in the case of inferentially justified belief through abductive or inductive inference, it is hard, even for theorists, to spell out which propositions form the base: but then it seems implausible that the subject herself can have justified beliefs about the probability relations between the basis propositions and the target proposition (both the contents of her beliefs, of course). It seems that it is required that she must have access to the base propositions *as such* if she is to have justified beliefs about the base proposition making probable the target proposition. But, as noted, even theorists have problems ascribing the correct base propositions of such inferences. So it is implausible that the subject should be able to do this (but it seems that she must, on this requirement). But if she has not, then beliefs based on inductive or abductive inference are either never justified or we must give an account according to which they are non-inferentially justified. Both seem implausible<sup>10</sup>. So I do not require that the subject must have a justified belief to the effect that the propositions that are the contents of the beliefs from which a belief of hers derives its justification raises the probability of the proposition that is the content of that belief. It suffices that it in fact does. I favour, then, a kind of inferential externalism (cf. Pryor 2001, 106). More on this below. As noted, a necessary condition for a belief’s being inferentially justified is that it must be based on a good reason. I have suggested that what makes a reason a good reason may be the fact that certain probability relations hold between that reason and the proposition that is the content of the target belief. I do not, however, deny that certain other properties, such as reliability, of the reason contribute to making it a good reason. I leave the question of what makes a good reason good aside, as the account I want to give of the epistemologies of comprehension and

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<sup>9</sup> Fumerton’s solution is to argue that the probability relations in question are necessary and knowable a priori, and that it follows that beliefs about them can be non-inferentially justified. I regard this as implausible: the relations in question seem contingent, and it does not seem that we can have non-inferentially justified beliefs about them.

<sup>10</sup> Concerning the first route: I assume skepticism to be false in this thesis – I assume that many of the beliefs acquired through perception, inference, testimony, memory, and so on, are justified. I shall not motivate this assumption. Concerning the second route: such a position is taken in Harman’s 2001. I shall return to this position applied specifically to testimony.

testimony is largely neutral on such questions. As for immediate justification, I assume that, in order to be justified, a belief must be based on an adequate ground that is not a reason<sup>11</sup>. From this it is clear that I am interested in doxastic justification rather than propositional justification. One has propositional justification when one has justification to believe a proposition regardless of whether one believes that proposition or not. Thus, Suad may have justification to believe that Susan said that the building is on fire, and Suad might even have justification to believe that the building is on fire, even though Suad does not believe any of this. In this thesis, I discuss beliefs of particular persons and the justification enjoyed by those beliefs. On this construal, obviously, Suad cannot have a justified belief that the building is on fire unless she believes that the building is on fire, and for her belief to be justified it must be *based*<sup>12</sup> on the ground that makes it probable. The individual may have propositional justification even if the ground she has is not operative, but that is not the case of doxastic justification. ‘Justified belief’ captures doxastic justification, while ‘justifiable belief’ captures propositional justification<sup>13</sup>. I shall use ‘justification’ to mean doxastic justification in this thesis. My understanding of justification is similar to that of Bergmann (2006), who has in mind “doxastic justification that is more objective than subjective deontological justification (understood as epistemic blamelessness) and yet insufficient for warrant” (6). An example of an epistemically blameless subject whose belief is still unjustified is offered by Conee and Feldman: they consider the paranoid man who believes that he is being spied upon as a result of an uncontrollable desire without any supporting evidence. Our intuition is that this man

does not deserve to be blamed for that belief. But there is a fact about the belief’s epistemic merit. It is epistemically defective – it is held in the presence of insufficient evidence and is therefore unjustified (1985, 17. Cited in Bergmann 2006, 5).

It is not epistemically appropriate for the person to believe that he is being spied upon, even though he cannot be blamed for his belief: our notion of justification is more objective than this. We have now arrived at an understanding of the notion of *justification*. The aim of this thesis is to find out whether justification in this sense is inferential or not, specifically for testimonial beliefs, and in doing so, to find out whether the justification for beliefs about what is said is inferential or not. As we have seen, a way of finding out whether the justification for beliefs is inferential or not is finding out whether the beliefs in question are based on reasons. I now set out my construal of reasons in the narrow sense (much of what I am about to say is also true of grounds in general, but I focus on grounds that are reasons from now on).

### *Reasons*

<sup>11</sup> As noted, there may be groundless justified beliefs, however. Nothing I say in this thesis depends on the impossibility of this.

<sup>12</sup> A construal of the basing relation is set out below.

<sup>13</sup> The distinction echoes Conee and Feldman’s (1985) distinction between justification and well-foundedness. In their terms, I will discuss well-foundedness rather than justification.

The term ‘reasons’ is employed in various ways. It might be used to denote a kind of objective reason, a reason that no one necessarily is in possession of: there might now be reasons to believe that P, even though no one has this reason or indeed, any evidence for believing this. Some reasons are essentially possessed. However, they do not exist unless a subject possesses them. This distinction is between objective and subjective normative reasons. I am interested in subjective normative reasons. And moreover, I am interested in subjective normative reasons that also are (or are the contents of) explanatory reasons. Some explanatory reasons are not normative at all: a subject might believe for bad reasons. But some explanatory reasons are certainly also normative: they count as good reasons for believing, on the construal above. I am here interested in such reasons that are *operative* – the epistemic parallel to motivating reasons. They are reasons for which a subject S believes that p, that can be analyzed as “a reason he has for believing p *and* an actual basis of his belief that p, in a sense implying that it is a reason why he believes it” (Audi 1986, 236). Such are explanatory – but they are also rationalizing in the sense that when we cite them, we say that the person does or believes something for a reason. When we say ‘the reason stars twinkle is movement in the intervening air’, we cite a purely explanatory reason, not a rationalizing one – the movement in the intervening air is not stars’ reason to twinkle. But when we say ‘the reason she believes that it is raining is that she believes that there is a wet coat on the coat stand’, we say that she believes that it is raining *for* a reason, namely that she believes that there is a wet coat on the coat stand – this is the reason for which she believes that it is raining. Here we cite her operative reason: they are explanatory reasons (but not vice versa), but they are also rationalizing reasons in the sense that they are part of an explanation that “involves the person’s rationality in a distinctive way” (Broome 2013, 46). Since explanatory reasons are part of causal explanations and therefore are part of a causal chain, so must operative reasons be, since they are a variety of explanatory reasons. Another way of saying that Susan believes that it is raining for the reason that she believes that there is a wet coat on the coat stand is to say that she believes that it is raining *because* she believes that there is a wet coat on the coat stand, “where this is the ‘because of ordinary causal explanation” (Wedgwood 2006, 661). On this view, operative reasons are also causes. This is brought out further when we examine a causal account of the epistemic basing relation later in this section. We construed grounds, and hence reasons, functionally as whatever can be the basis for belief – whatever can be inputs to belief-forming processes. It seems, then, that motivating epistemic reasons are mental states. One might object here that such reasons are not the kinds of reasons we are interested in as regards epistemology: we should be concerned with *normative reasons*, and such reasons are propositions (or facts) rather than mental states. I respond, of course,

by saying again that explanatory reasons can be normative, in this sense: by having normative reasons as their contents and by deriving their normativity from this content<sup>14</sup>. On this view, a normative reason is a proposition, and that proposition may stand in certain evidential relations to other propositions, counting in favour of (believing) these propositions. If a given motivating reason has a given normative reason as its content, and a belief that is based on the motivating reason has a proposition supported by that normative reasons as its content, then the motivating reason is normative as well<sup>15</sup>. It is explanatory, but it is also a normative reason. Again, it is the latter kind of reason we are interested in: motivational reasons that are also normative. On some views, normative reasons are mental states, not propositions, and some views claim that normative motivational reasons are facts. My view is compatible with such views. As regards the latter, I take it that there must always be an internal representation of the fact if it is to be a reason for which a belief is held (and that is my interest, given our interest in doxastic justification). As Sylvan notes, most factualists would agree that “mental states provide reasons”, even though they do not count them as reasons (2013, 4). This is just a verbal dispute. The mental states that “provide reasons” are the explanatory reasons I am interested in. As regards the former, I can agree that normative reasons are mental states rather than propositions so long as these mental states also are explanatory; in fact, that seems to be the idea behind that view. On the same note, my view is compatible with Audi’s 1986 view that motivating reasons are propositions, but that certain states serve to make those motivating reasons reasons for which one believes: these latter states he calls ‘reason states’. He takes “a reason, *r*, for which *S* believes a proposition, *p*, to be a proposition *S* believes. We can then refer to *S*’s believing that *r* as a *reason state*” (Audi 1993, 234). My ‘motivating reasons’ would be Audi’s ‘reason states’. (I do not commit myself to a specific view of the ontology of normative reasons, only motivating reasons – they are mental states). On a more traditional view, “A person’s reason for believing that *h* ... will consist of a set of propositions believed by that person to be good evidence for the truth of *h*” (Swain 1985, 71). Here ‘reason’ is taken to be a set of proposition that cannot be explanatory (since they cannot be causes). On my construal, a person’s (motivating) reasons for believing that *h* will consist of a set of mental states whose contents are propositional reasons that stand in certain evidential relations to the proposition that is the content of the target belief. From the discussion above, it is clear that I do not agree that such reasons must be believed

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<sup>14</sup> As regards recent arguments purporting to establish that reasons are facts or states of affairs rather than mental states: I remain neutral on this, but I hold that if a belief is to be based on a reason, that which it is based on is a mental representation of that reason. Thus I remain neutral on whether that mental representation itself counts as a reason or the states of affairs that it represents counts as reason. I will, however, talk as if the mental state counts as the reason.

<sup>15</sup> Cf. Burge 2013, 490: “an operative reason is one that is the mode-content of a psychological state or occurrence that has that content and that figures causally in forming or sustaining the attitude whose mode-content the reason is a reason for”.



to support the given proposition by the subject. My construal follows closely that of Swain, who also ties his construal in with the notion of justification:

When we speak of a person's evidence for a belief that *h* the set of propositions which constitutes that evidence will be a set of propositions believed by that person. The belief states in question may be among the explanatory reasons for which the person believes that *h*. Moreover, whether the belief that *h* is justified depends upon whether the explanatory beliefs are themselves justified, and this in turn depends upon the propositions which are the objects of these explanatory beliefs. The evidential reasons one has for a belief play a role in the justification of belief...by virtue of the fact that they are objects of beliefs which are causal (explanatory) reasons. (Swain 1985, 72)

This last point is crucial. We return to it below. The important point to note here is just that I am concerned with motivating epistemic reasons, and that I regard these as mental states<sup>16</sup>, and that our construal of normative reasons as propositions allows us to assess whether that motivating reason is a good reason in terms of relations between the propositions that are the contents of the states, and further we can agree with Burge that an “individual is justified if and only if the reason is operative or relied upon in the individual’s psychology” (Burge 2013, 3)<sup>17</sup>.

As noted, not all reasons why a subject believes something are motivating reasons: they are not the reason for which the subject believes what she does. Here is an example from Sylvan forthcoming:

Perhaps a reason why Schopenhauer had pessimistic beliefs is that he was depressed. But this was probably not a reason for which he believed in philosophical pessimism: instead, it disposed him to find apparently good reasons for being a philosophical pessimist, which then became the reasons for which he believed. (Sylvan forthcoming, 10)

In explaining why a subject believes as she does, we may have to cite *reasons why* of this sort in addition to citing the reasons for which she believes as she does. The latter motivating reasons are also reasons why, but not vice versa. In this thesis, it is the former kind of reason that we are interested in, since we are interested in justification – it is *reasons for which* someone believes that is relevant to justification. How do we distinguish motivating reasons from reasons why of other kinds? In order to answer this question, we must appeal to the epistemic basing relation: this is the relation that makes it the case that a certain state of the subject counts as a motivating reason for a belief (or other doxastic state). It is the relation that holds between a reason and a belief when the reason is the reason for which the belief is held. If a given state instantiates this relation to a belief, the state is a motivating reason. This should be uncontroversial. As Audi notes: “There is wide agreement that *S*’s belief that *p*, is based (wholly) on his belief that *q*, if and only if *q* is the *reason for which* he believes *p*.” (Audi 1993, 54). Thus, we may use the basing relation to establish

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<sup>16</sup> This is the most common view in the literature on reasons. For a defense, see Turri (2009, 2011).

<sup>17</sup> Remember that Burge uses ‘justification’ to mean something roughly corresponding to what I mean by ‘inferential justification’

necessary and sufficient conditions for being a reason for which someone believes. Let us now set forth how this basing relation is to be understood in this thesis.

### *The basing relation*

To take a simple example, Susan believes that it is raining for the reason that she believes that there is a wet coat hanging on the coat stand. Here, a relation must hold between her belief that it is raining and her reason – her belief that there is a wet coat hanging on the coat stand. This relation is the basing relation: her belief that it is raining is, by virtue of some relation, *based on* her belief that there is a wet coat hanging on the coat stand. In this thesis, I assume, as is the standard view, that the basing relation is a causal relation<sup>18</sup>. This causal account is often motivated by appeal to a related argument in the philosophy of action to the effect that reasons must be causes. The argument is due to Davidson (1963). Wedgwood sets out the corresponding argument for a causal account of the epistemic basing relation thus:

We need some way of distinguishing between those cases where one merely *has* a reason for believing something (perhaps without appreciating the reason), and those cases where one actually forms that belief *for* that reason; and intuitively, it is plausible that the difference lies in what causes the formation of the belief in question. (Wedgwood 2006, 661)

As Swain notes, “this causal account of basing requires that reasons, as well as the beliefs based upon them, be causally efficacious states of a person (that is, they are caused and can be causes)” (Swain 1985, 71). Obviously, this is the case with motivating epistemic reasons. They are exactly the sorts of things that can cause and be caused by other psychological states. The argument certainly has strong intuitive appeal. A further argument is supplied by Turri (2011, 385-386). He argues that causality is the only relation that can account both for the fact that reasons are difference makers and that the basing relation is not brute. The first step of the argument is to claim that reasons for believing are difference-makers: they make a difference to the relevant beliefs of the subjects who possess them. If I have reason to believe that the house is on fire, and believe that the house is on fire without that reason making a difference to my belief (it does not make me hold the belief, or strengthen it, and so on), then that reason would not be a reason for which I hold the belief. The second step is to claim that the epistemic basing relation is not a brute relation – it can be explained in terms of other relations between the relata; the reason and the belief. This point is taken to be obvious: when a belief is based on a reason, we expect a further explanation of how they are connected: it’s not just a brute fact. It is not, for instance, just a brute fact that I believe that the house is on fire for the reason that I see smoke rising from it rather than for the reason that Susan told me so. The third step is to claim that a causal theory of the basing relation explains both step one and two: causes are difference makers, so if reasons are causes, this explains why they too are

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<sup>18</sup> See Korcz 2010 for an overview of debates on the basing relation.

difference makers. The reason that I see smoke rising from the house makes a difference to my belief that the house is on fire by (partly) causing it. And if the basing relation is to be understood as a causal relation, this explains why basing is not brute: we can give further explanation in terms of causality. I believe that the house is on fire for the reason that I see smoke rising from it rather than for the reason that Susan told me so because the former but not the latter also stands in a causal relation to my belief. The fourth step is to argue that only if we understand basing as a causal relation can we account for step one and two. Turri argues that there are no types of relation other than the causal relation that can explain steps one and two. I will not elaborate further here. The final step is to claim that the causal condition is part of the best explanation of steps one and two. It seems, then, that the causal condition is vindicated.

But the Davidsonian argument and Turri's argument only establish that causation is necessary for basing, and as Turri notes "a necessary condition does not a theory make." (Turri 2011, 11). In order to have a full account that we can employ later in the thesis, we need both a necessary and a sufficient condition. A theory that claims that meta-beliefs are necessary in addition to this causal requirement (e.g Audi 1986) would be incompatible (at least not easily reconcilable) with some of the conclusions that are to be drawn later in the thesis. A full causal account of basing must specify a sufficient condition for one belief to be based on one or more other beliefs in addition. If the theory is a causal theory (as opposed to doxastic or causal-doxastic) then the sufficient condition had better specify the sufficient condition in terms of causation as well. But giving the simplest necessary and sufficient condition that a reason is among your reasons for believing that q if and only if it causes your belief seems hopeless, due to the problem of deviant causal chains. As Pollock and Cruz note

Our beliefs can be tied together by all sorts of aberrant causal chains. I might believe that I am going to be late for my class, and that might cause me to run on a slippery sidewalk, lose my footing, and fall down, whereupon I find myself flat on my back looking up at the birds in the tree above me. My belief that I was going to be late for class caused me to have the belief that there were birds in that tree, but I do not believe the latter on the basis of the former. (Pollock & Cruz 1999, 35-36)

To avoid this problem, we may want to restrict the causes in question to causes internal to the subject, and to avoid further problems which may then arise, restrict them to mental states of the subject, and moreover those that are proximate; that is, are inputs to a given belief-forming process. But the problem of the deviant causal chain does not go away with these restrictions: further such cases might be constructed, involving flukes or malfunctioning of the subject's cognitive system (see Turri 2011, 389 and Millar 1991, 57). At the risk of ad hoc-ness, we may avoid this problem by construing the causation involved in the basing relation as *non-deviant*. Such an account, which I intend to adopt, is given by Turri (2011). According to him

(CA) R is among your reasons for believing Q if and only if R non-deviantly causes your belief (Turri 2011, 14)<sup>19</sup>

For this account to be interesting, we need an account of causal non-deviance. Alston construes the causality involved as of “the kind involved in the operation of input-output mechanisms that form and sustain, and so on, beliefs in a way that is characteristic of human beings” (Alston 2005, 84). This is also the thought behind Burge’s condition for a reason to be operative: it is operative “if and only if the reason figures in a cognitively relevant causal way in forming and sustaining the attitude” (Burge 2013, 490)<sup>20</sup>. These suggestions seem to be cases of claiming of causal deviance that “‘Well, R didn’t cause N in the right way’” (Turri 2011, 390) – causal non-deviance just is causation *in the right way*. But that is not informative: we are still tempted to ask just what causal non-deviance consists in. Turri attempts to give a more informative account: he understands causal non-deviance in terms of *manifesting cognitive traits*<sup>21</sup>. Manifesting a cognitive trait contrasts with “an outcome happening *merely because*” of a trait (ibid., 391). A cognitive trait is “a disposition or habit to form (or sustain) a doxastic attitude in certain circumstances” (ibid.). This explains why Pollock and Cruz’s example above fails to be causally non-deviant: it does not exhibit such a disposition or habit. The belief that he is late for the class causes the subject to believe that there are birds in the tree, but not in a way that manifests cognitive traits in this way: it does not exhibit a certain habit or disposition of the subject. The same response can be given for cases where the deviant causal chain does not involve external events, and even to cases where the causation is proximate: such cases do not manifest the cognitive traits of the subject and therefore basing relations fails to be established – they do not involve causation of the trait-manifesting kind.

One may question whether saying that causal non-deviance is causation manifesting cognitive traits is saying more than Alston and Burge said above: as Turri notes, however, causal deviance problems infect most of our causal accounts. But this does not mean that they are not causal accounts: in particular, the problem of the deviant causal chain does not show that the basing relation is not causal, nor that a form of causation is not sufficient for basing. But these are general problems that I cannot go into; I cannot defend the causal account further here, and shall assume it to be true (this should be relatively uncontroversial): I shall assume that a belief is based on a

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<sup>19</sup> ‘Causing’ should here be understood to include causal sustainment. Note that Turri uses ‘reasons’ in a wider sense than I do: it applies roughly to what I mean by ‘grounds’.

<sup>20</sup> Note that Burge’s ‘operative reasons’ are my ‘motivational reasons’.

<sup>21</sup> See Wedgwood (2006) for another attempted solution to the causal deviance problem (for inference). See also Millar (1991), 57-63, who gives a similar account for inferential justification.

ground if and only if it is non-deviantly caused by that ground<sup>22</sup>.

With our account of the epistemic basing relation in hand, we may now expand on what motivating epistemic reasons are: when a belief that *p* is based on another belief that *q*, the belief that *q* is the reason for which the belief that *p* is held. We have already given a causal account of the basing relation, so if we substitute accordingly, we get the thesis that

- (II) When a belief that *p* is non-deviantly caused by another belief that *q*, the belief that *q* is the reason for which the belief that *p* is held.

We can now return to our account of inferential justification. If a belief that *q* is the reason for which the belief that *p* is held, then the belief that *p* will not be justified unless the belief that *q* is. So by establishing that the basing relation holds between a given mental state (of the kind that can be a reason in the narrow sense) and a belief, we can establish that the belief must be inferentially justified.

According to this construal of the basing relation, any mental state capable of non-deviantly causing a belief may count as the basis for that belief, and so count as a reason for the belief, and so count as a justifier for that belief. So for instance, an unconscious belief that non-deviantly causes a belief can take on such roles<sup>23</sup>. This is a virtue of our account over certain other accounts that impose conditions to the effect that one must be aware of the fact that the reason supports the belief (and doxastic accounts)<sup>24</sup>. As Korzc notes about a theory that drops the awareness condition: “One motivation for such a theory might be the view that one need not be aware of a reason for it to be the basis of a belief, as in the case of subliminal reasons” (2010)<sup>25</sup>. That our account allows for this is obvious. The point is simple: Unconscious reasons can be reasons for which (and not just reasons why) a subject believes that *p* in virtue of instantiating the epistemic basing relation to the belief that *p*. It is clear from my discussion that just because a conscious reason is absent from a given piece of belief formation one should not conclude that the belief is not held for a reason (cf. (Alston

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<sup>22</sup> Strictly speaking, I do not need to endorse a fully causal account for my argument to succeed in the later chapters of the thesis. If there are “situations in which non-deviant causes are sufficient to establish basing relations” (Korcz 2010), and if comprehension is just such a situation, my argument can succeed. So I do not need to claim that non-deviant causing is sufficient in *all* cases, but that it is so in the cases at hand. I do not need to claim that having a meta-belief is insufficient (but I do deny that it is necessary) for basing or that causation is *necessary* – I may, for instance, accept the conclusion of Lehrer’s gypsy lawyer case. But I shall work with the purely causal account from now on.

<sup>23</sup> As I noted, this obviously makes my view incompatible with certain accessibility approaches to inference, reasons and justification. But as we shall see, the assumptions made seem widely accepted.

<sup>24</sup> If one makes the requirement implicit or unconscious, it seems to disappear, or it seems trivially to be involved in non-deviant causal basing.

<sup>25</sup> He notes that an “issue here would be whether such subconscious states can be justifying reasons” (Korcz 2010). I turn to this below.

2005, 88, who discusses groundless beliefs). The construal of grounds in terms of their function rather than in terms of accessibility seems to allow for unconscious grounds (and also reasons). Given our construal of the basing relation as a causal relation, and given that unconscious states can cause beliefs in the relevant way, it follows that such states can figure as grounds for the belief, since the grounds of a belief is whatever the belief is based on. So the relation that holds between a ground and a belief when the belief is held on that ground can be established even if the ground is an unconscious state. Again, given e.g. a doxastic account of the basing relation, this seems less plausible, since the ground being consciously accessible seems to be required to establish the relation (unless one wants to hold a very weak version of a doxastic account, where the doxastic states involved are tacit, etc. – but such an account seems to lose the initial motivation for a doxastic account, and seems to have turned into a type of causal account – unless we understand it in a structural sense). But here, we have understood basing as a causal relation. On our construal we have not stipulated beforehand that grounds cannot be unconscious. And the possibility seems to follow naturally from our assumptions. We have said that reasons are grounds that are propositional, e.g. beliefs. If beliefs can be unconscious, as they most certainly can, and if such beliefs can cause other beliefs, then it seems that reasons can be unconscious as well. Our conclusions in this section tally well with various other accounts in the literature. Here's Audi:

There is a sense in which one can believe for (and even be justified by) an “unconscious” reason, one that, apart from special circumstances such as the help of another person, one cannot come to know one has as a reason. (Audi 1993, 21)

And here's Burge:

There may be cases in which fully formed psychological states operate as reasons in a psychology, but are not accessible, even in principle, to the reasoner's consciousness. (Burge 2013, 4 fn6)

This formulation [of *the having of a reason* that is involved in justification] allows modular justifications—justifications that occur in an individual's psychology, but that cannot, even in principle, be brought to consciousness by the individual. On this formulation, being justified hinges not on availability to consciousness, but on having a rational structure in one's psychology that functions to support and explain the relevant attitude... [On this construal] an individual is justified in holding a propositional attitude if and only there is an operative (undefeated) reason for the attitude in the individual's *psychology*—whether or not the reason is in-principle accessible to the individual. (Burge 2013, 490 fn2)

And here's Alston:

I am concerned here only with the possibility of a (completely) unconscious basing. And if actual examples of that can be exhibited, that will settle the matter. It's reasonably clear that there are such examples. (Alston 2005, 87)

He then goes on to give an example of a driver making inferences about the movements of other vehicles, their distance to her car, and so on, without her being conscious of these inferences due to her having her mind on other things. In this case, though, it seems that the driver could in principle be conscious of the processes had she not had her mind on other things. But examples

can be given where such conscious access is in-principle impossible. Alston claims that “either type of case is sufficient to show the possibility of unconscious basing of a belief on a ground” (Alston 2005, 87). Later, in a discussion of whether all beliefs have grounds he notes that

whatever the input was that triggered the generation of a belief output, it is functioning as a ground whether S is conscious of it as such or not. (Alston 2005, 88)

This seems to follow straightforwardly from two plausible theses: (i) a causal account of the basing relation, and (ii) the fact that every belief has a proximate cause (the input to the belief-forming process). Remember here our functional construal of grounds: the cause can be e.g. perceptual experiences, other beliefs, etc. If the theses are true, it seems that whether the proximate cause is conscious or not is irrelevant to whether that cause can count as a ground. But unconscious basing seems to be a consideration that every account of the basing relation must account for, given e.g. Alston’s examples above. This point is stressed by Evans (2013), who holds that the phenomenon of unconscious basing is a piece of pre-theoretical data that places constraints on any adequate account of the basing relation: “One can be mistaken about (or unaware of) the basis of one’s belief (Evans 2013, 2946). He offers an example to illustrate this phenomenon:

Imagine that Professor Green believes that Professor Smith is unqualified. Suppose further that this belief is based (at least partly) on his belief that Professor Smith is a woman. But Professor Smith, like many of us, believes that he harbors no sexist prejudices. He in fact strongly believes that his belief is *not* based on Professor Smith’s gender, but only on the quality of her work. (ibid.)

Here, the ground is not only unconscious; Green is also mistaken about his grounds for believing that Smith is unqualified. Again, this example suffices to establish that basing can be unconscious, leading the way to unconscious grounds.

I follow these authors in allowing for the possibility of unconscious reasons and, to foreshadow somewhat, this possibility becomes central in my defense of inferentialism. The way in which reasons can be unconscious will become clearer throughout the thesis, particularly in Chapter 5.

It seems only a short step from the view that reasons can be unconscious to the view that justification can be unconscious, as Burge and Audi concluded above: to the view that subject can be in a position where it would be epistemically appropriate to believe *p* without having access to the states that makes it so. Our discussion seems to allow for this. First, as noted in our discussion of reasons above, “The evidential reasons one has for a belief play a role in the justification of belief...by virtue of the fact that they are objects of beliefs which are causal (explanatory) reasons” (Swain 1985, 72). Second, we have established that causal (explanatory) reasons can be unconscious. There seems to be no reason for denying that such reasons can have evidential (normative) reasons as their contents: one can possess a normative reason in virtue of its being a

content of one's mental state (on our construal of the relevant notions, no accessibility constraint is involved). If so, then, certainly, the causal reasons are relevant to the justification of the belief that they cause, even though they are unconscious. When an explanatory reason causes a belief, whether that belief is justified depends partly on whether the explanatory reason is justified. We have a case of inferential justification. In the case of immediate justification, the ground that confers the justification, e.g. a perceptual experience, can be unconscious (according to some views, certain beliefs may be baseless but nonetheless immediately justified, however).

A way to motivate this view might be to consider the implausibility of the denial of it: this would be the claim that whenever a belief is formed, if no ground for the belief is consciously available, then the belief is groundless. Cognitive psychology has shown that many of our belief-forming processes are unconscious and automatic. Yet it would seem implausible to deny that beliefs formed through such processes are baseless, since the processes often involve "fully formed psychological states", that may even be propositional (these may figure as premises in inferences). As regards justification, a plausible view seems to be that if a belief is based on a ground, then the belief is justified partly by that ground, regardless of whether the ground is unconscious or not – it seems implausible to claim that a given justified doxastic state is immediately justified if it is based on an unconscious doxastic mental state.

Another reason to doubt that grounds must be consciously available is the fact that many of our beliefs are based on inductive reasoning. This is the consideration alluded to above in our discussion of the Principle of Inferential Justification. Even for theorists, it is hard to formulate the grounds of inductive beliefs. As Harman notes

It is doubtful that anyone has ever fully specified an actual piece of inductive reasoning, since it is unlikely that anyone could specify the relevant total evidence in any actual case. The difficulty is not simply that there is so much relevant evidence, but also that one cannot be sure whether various things should or should not be included in the evidence. One cannot always be sure what has influenced one's conclusion. (Harman 1970, 844)

The same is the case with beliefs based on inference to the best explanation. It seems that a motivation for claiming that the grounds of a belief must be conscious is to give due consideration to the subject's perspective – the grounds must be *her* grounds. This seems to require that the subject must conceive of the grounds as the grounds for which she believes P. Yet in these cases, where the belief that P is based on non-demonstrative inference, not even theorists are able to formulate the grounds; if so, it seems implausible to assume that the subject has such conscious access to the grounds. Note that it is not required that she must formulate the grounds: it is required that the grounds are consciously available (possible dispositionally) *as* grounds. It seems that she must not only have the grounds consciously accessible, but that they must be taken to be grounds in



the inference. If this latter is denied, the contention that grounds must be consciously available seems to lack motivation. Yet we would still have to say that her belief is based on her evidence – her grounds. So conscious availability cannot be a condition for being a base (at least not if the motivation behind the accessibility constraint is to be preserved). This may seem more like an argument against the “taking condition” on inference: the condition that “inferring necessarily involves the thinker taking his premises to support his conclusion and drawing his conclusion because of that fact” (Boghossian 2014, 5) – but the taking condition seems to be tied in with the motivation for placing an accessibility constraint. I turn now to a consideration of inference as it is to be understood throughout the thesis.

### *Inference*

Inference is to be understood as a causal process in which a set of input mental states causes an output mental state. On my construal, the output of inference is always a belief. This is strictly speaking false, since inference may result in retraction of belief, or strengthening or weakening of belief, and so on. Perhaps a better way of putting my construal is in terms of the notion of inferring *p*. And this, as Setiya notes, always involves coming to believe that *p*: “one does not count as having inferred that *p* unless one concludes and so believes that *p*” (Setiya 2013, 185). Throughout the thesis, when I employ ‘inference’ I mean ‘coming to believe on the basis of inference’. I follow Streumer (cf. 2010, 244) in taking an inference to be a belief-fixation process in which a new belief – a conclusion - is acquired on the basis of a set of other beliefs – premises. The conclusion of an inference is a mental state that results from the inference process. It is tightly connected with believing for a reason: inference “consists in revising one’s beliefs for a reason” (Wedgwood 2006, 660) and all beliefs for reasons are inferential beliefs; they are based on inference<sup>26</sup>.

As should be clear from my discussion of unconscious reasons, an inference need not be conscious. This is contrary to some recent views that claim that inference is a “personal-level, conscious, voluntary mental action” (Boghossian 2014, 2). According to Recanati (2004, 42) a process cannot be inferential unless two conditions hold: “(i) one judgment (the conclusion) is grounded in another judgment (the premiss), and (ii) both judgments, as well as the fact that one is grounded in and justified by the other, are available (consciously accessible) to the judging subject”. He disagrees with Boghossian that inferences need be voluntary, but agrees with him that they must be conscious. That is not to say that they claim that inferences cannot be spontaneous and automatic: indeed they both explicitly endorse this view. They allow for inferences that fall between “the

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<sup>26</sup> Audi (1993, 238) thinks there are two sorts of inferential beliefs: structurally inferential and episodically inferential, only the latter of which are produced by a process of inference. I will return to this distinction later in the thesis. For now I will assume that all inferential beliefs are episodically inferential.

distinction between reasoning that is sub-personal, sub-conscious, involuntary and automatic, on the one hand, and reasoning that is person-level, conscious, attention hogging and effortful, on the other” (Boghossian 2014, 2). They may be fast, automatic, spontaneous, and inexplicit. But for both, a crucial point is that they must be *conscious*. Recanati discusses a case from Sperber 1997:

You hear the doorbell ringing, and you spontaneously form the beliefs:

(1) The doorbell is ringing.

(2) There is someone at the door. (Sperber 1997, 77. Cited in Recanati 2004, 42)

Sperber takes this to be a case of “spontaneous and unconscious inference”, where the first belief is formed on the basis of a perceptual experience, and the second is formed inferentially on the basis of the first. Recanati agrees that the inference is spontaneous, but argues that this is not unconscious: it is a case of conscious inference, since it satisfies conditions (i) and (ii) above. But we could set up the case so that the fact that the second belief is grounded in the first for some reason is not available to the subject. It is a case in which the subject believes both (1) and (2) and believes (2) on the basis of (1), but the latter fact is not available to her (but she does not disbelieve that (2) is based on (1)). It seems plausible that we still should take the second belief to be an inferential belief arrived at through inference from the first – at least, it seems implausible to regard this belief as a non-inferential, basic belief. In addition, Recanati takes conditions (i) and (ii) to be satisfied in the case of implicature comprehension: retrieving implicatures is the only work inferential processes (in his sense) do in his account of comprehension. But it becomes hard to see how condition (ii) can be satisfied given our discussion of inference to the best explanation above: even theorists have problems explicating what went into the inference. In Recanati’s case, it is not only the case that the premises must be consciously available; they must also be available *as premises*. If they were not, it is hard to see how “the fact that one is grounded in and justified by the other, are available (consciously accessible) to the judging subject”. As noted above, if that constraint is dropped, the motivation for a conscious availability constraint seems to disappear. I return to Recanati’s views in later sections of the thesis. Here I simply note that in this thesis, I follow Allott in resisting the claim that “whether a process is conscious or unconscious tells us what kind of process it is: in particular, whether it can be inferential and whether it counts as reasoning.” (Allott 2008, 231). On my view, inferences (in the proper sense - not in the sense that Recanati’s primary processes are inferential<sup>27</sup>) can be unconscious, and they can be conscious. Exactly how to

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<sup>27</sup> This is the sense in which perceptual processes are “inferential”. We must distinguish inferences in our sense from the processes sometimes claimed to be involved in perception. See for example this usage of ‘inference’ by a renowned vision scientist:

understand the process is a matter of recent debate (see Boghossian 2014, and replies by Broome and Wright. See also Neta 2013). I do not go into the difficulties here, and shall assume a rough-and-ready understanding of inference. However, when I return to the inferential model of communication below (in this chapter, section 1.5), some details should become clearer.

Let us connect our construal of inference with our account of believing for a reason. We must note that the latter is not a dynamic process, while the former is. Remember that we construed believing for a reason in terms of a causal *sustaining* account of the basing relation. We therefore follow Alston's advice that "in thinking of the basing relation we must be careful to recognize it in the sustenance and preservation of beliefs as well as in their inauguration" (Alston 2005, 84). But I am here interested in the inauguration of beliefs, and in particular inference in the dynamic sense as a belief-forming process. But when one considers the inauguration of belief in this sense, one is still assessing a state rather than a process. Take the "state of believing that  $p$  [for the reason] that  $q$ , which might also be called "inferential judgment"" (Setiya 2013, 11). As Setiya notes, "it is easy to conflate the state of inferential judgment with inference as a dynamic phenomenon. What is true of one may not be true of the other" (Setiya 2013, 11). The beliefs referred to in this thesis, both testimonial and comprehensional are not only prior causes; they are reasons in the static sense as well (there is, of course, as question of time involved – as it is in the testimony debate: one's reasons may be stored only in short term memory – this may be related to the problem of forgotten evidence), in the same sense as any obviously inferential belief caused by certain states also have as reasons those states. When I talk of believing that  $p$  on the grounds that  $q$ , I do not refer to a process of e.g. inferring  $p$  from  $q$ , or the process of forming the belief that  $p$  on the grounds that  $q$ ; I refer to the *state* one is in as the result of this process. As Setiya notes, "the explanation of belief implied when one believes that  $p$  on the grounds that  $q$  [is not] an account of how one *formed* the belief that  $p$ ." The subject's believing that  $q$  is a present state of the subject, and so is her believing that  $p$  – so the explanation of her believing that  $p$  is "of a present state in terms of another" (Setiya 2013, 182). It may seem as if I am confusing the two. But when I talk of forming the belief that  $p$  on the basis of an inference with the beliefs that  $q, r, s, \dots$  as premises, it is supposed that the static state of believing that  $p$  has as grounds the static states of believing that  $q, r, s, \dots$ , at least immediately upon arriving

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...the visual system transcends the available optical information by implicitly making a number of highly plausible assumptions about the nature of the environment and the conditions under which it is viewed. When these assumptions are coupled with the sensory data in the incoming image, they result in a heuristic interpretation process in which the visual system makes *inferences* about the most likely environmental condition that could have produced the image. The process is heuristic because it makes use of probabilistic rules of thumb that are usually, but not always, true. If these underlying assumptions are false, they will lead to erroneous conclusions in the form of visual illusions. (Palmer 1999, 58, emphasis mine)

I will return to this below, but here I will note that what distinguishes inferences in my sense from such processes is that the former are cognitive processes that involve fully formed propositional attitudes.

at the state of believing that p: I take it that through forming a belief that p based on an inference where q, r, s... is among the premises puts one in the state of believing p (partly) for the reasons that q, r, s.... At later stages, the beliefs that q, r, s... may be forgotten, new grounds for the belief that p may be acquired, and so on – giving an explanation of the state of believing that p would of course not then be a matter of accounting for how the belief was formed. Yet at time *t*, *immediately* upon arriving at the state of believing that p, the beliefs that q, r, s... count as the grounds for the belief, and in assessing the epistemic status of that belief, that is the starting point<sup>28</sup>. In this sense an account of how the belief is formed is at the same time an explanation of the “static condition” of believing that p on the grounds that q, r, s.... I shall assume that to decide whether a belief is a belief for a reason or not, we need to investigate the formation of the belief – we need to know the inputs to the process of belief formation. The reason for this is that

the grounds in which we are interested for epistemological purposes, the grounds that most crucially affect the epistemic status of a belief, are the proximate inputs to belief formation. (Alston 2005, 83)

In deciding whether a belief is a belief for a reason (an inferential belief – a non-basic belief), we need to know whether there are reasons on the narrow construal amongst the proximate inputs to the formation of the belief. If we find that there are such reasons, we must conclude that the belief is non-basic: basic beliefs are beliefs that derive their justification from grounds that are not reasons – they are justified without being based on reasons. So on our account, if a belief is non-deviantly caused by a reason on our narrow construal, that belief cannot be basic. Some beliefs may be justified by non-doxastic grounds. Those that are, count as basic. They are non-inferential. That is so if we find that there are no reasons among the inputs – the inputs may consist in other types of grounds, for instance a perceptual experience. In what follows, then, since we want to see whether testimonial beliefs are basic, we will investigate whether testimonial belief formation includes reasons as inputs, and further we will investigate whether the output of comprehension is a belief and whether there are reasons among the inputs to comprehension. To foreshadow again: It is the task of later chapters to show that the states involved in comprehension and in acceptance should be regarded as reasons for which the relevant beliefs are held, and not just reasons why (by showing that they instantiate the basing relation). Then it must be shown that the states are not just grounds but reasons in the narrow sense (that they are doxastic and require justification (they are not states

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<sup>28</sup> Note also that if one has a belief based from memory that p, but have forgotten how that belief was acquired, the initial grounds must be the ones we turn to when assessing whether that belief is justified. If one inferred p from q, then q is the ground for p. If one’s belief that q justified the belief that p initially, then the justification may be preserved even though one forgets the belief that q. But this could not be so had the belief that q failed to justify the belief that p in the initial state (the state one was brought to be in by the process of inferring p from q). For a discussion of this, see Goldman 1999a and Conee & Feldman 2004.

of the experiential kind)). If this could be established, the road to inferentialism seems pretty straightforward. On this view, comprehension and testimonial belief-fixation both should count as inferential reasoning processes, since the representations involved in both transitions count as reasons for the belief that is the output of the process: in the case of the former, the representations that cause the output state of understanding (a belief) count as reasons for that state (belief), and in the case of the latter, the state of understanding counts as reason for the testimonial belief. Thus, both transitions should be regarded as reasoning, and both transitions should count as justifications in the narrow sense: which corresponds to my sense of inferential justification.

To understand this view better, we must first get a grip on what is involved in the epistemology of testimony and the epistemology of comprehension. In 1.2 I briefly set out the epistemology of testimony, in Section 1.3 I briefly set out the epistemology of comprehension. In Section 1.4 I set out the view to be argued for in more detail.

## 1.2: The Epistemology of Testimony

The epistemology of testimony concerns the justification of testimonial beliefs. Testimonial beliefs are beliefs based on states of comprehending a certain domain of others' utterances: they are "based on our capacity to comprehend assertive speech acts" (Graham 2010, 149).<sup>29</sup> The domain of communicative acts with which I am concerned is broader than typical construals of testimony: it includes all acts through which a speaker intends to convey that *p*, or is taken to convey that *p*.<sup>30</sup> Comprehending the utterance involves grasping the proposition that is expressed – the content of the utterance – along with its force of the utterance<sup>31</sup>. For a belief to be testimonial, it must be based on a state of comprehension that involves taking the utterance to have a certain force, namely as conveying the information that *P* – one must take the utterance to be, very roughly, affirming some proposition. It must also be based on the content of the utterance in question, as exemplified by the following exchange: Your friend utters "there is a hedgehog in the garden" and you come to believe that there is a hedgehog in the garden based on this content, without at the same time e.g. seeing that there is a hedgehog in the garden. I could tell you "I have a cold" and you could on the basis of this come to believe that I have a cold – but for this to be a testimonial belief, it must be formed on

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<sup>29</sup> On certain views testimonial beliefs are based on beliefs about what is said that are in turn based on states of comprehension, as distinct from the view that comprehension states *are* beliefs about what is said. Some argue that testimonial beliefs must be based on the testimony itself (see Goldberg 2013, 69-71). I will return to these views at a later point.

<sup>30</sup> This construal echoes Lackey's account in her (2005, 3).

<sup>31</sup> I should note that I will be concerned with seeming states of understanding as well – since one can acquire (justified) testimonial belief through misunderstanding. I leave this possibility implicit.

the basis of content of this utterance, namely that I have a cold, and not wholly or in part be based on your observation of the qualities of my voice.<sup>32</sup>

I do not assume, as some authors do, that in order to be testimonial, a belief needs to be formed on the basis of the comprehension state alone – I hold that it can be formed partly on that, partly on the basis of, for instance, positive reasons in favour of accepting the testimony; beliefs about e.g. the sincerity and competence of the speaker. This is contrary to other construals of testimonial beliefs: Audi for instance, as Kenyon reads him

takes genuine basing to hold only between, on one hand, the perception of an act as testimony and a recognition of its semantic content, and, on the other hand, a belief having (more or less) the same content as that testimony. If the reason for which the resulting belief is held includes any other elements, then that belief is not testimony-based in the relevant sense (Kenyon 2013, 75)

Audi construes testimonial beliefs as necessarily non-inferential: “testimonial-based belief, as I construe it, and as I think it is normally understood, is never inferential” (2006, 27). Here, Audi seems to be assuming that the state of comprehension is not itself a reason, for if it is, testimonial beliefs would be inferential – he must be assuming that the state is a ground of some other kind not itself requiring justification. Given my aims in this thesis, I cannot make the stipulation Audi does. I will borrow the construal of beliefs from testimony from Kenyon (2013). This construal allows for both inferential and non-inferential testimonial beliefs. On my view, whether testimonial beliefs are inferential or non-inferential is part of an important debate in the epistemology of testimony that cannot be sidetracked simply by stipulating that testimonial beliefs are non-inferential: if one does, one might end up employing a term with an empty extension, since it might well turn out that all testimonial beliefs are necessarily inferential<sup>33</sup>. So henceforth I will be construing testimonial beliefs as so in virtue of their being based on a comprehension state taken to be conveying information P, regardless of whether that state is a reason, or of whether it is based on further reasons.

A central debate in contemporary epistemology is the question of whether testimonial justification is inferential or non-inferential: “the testimony debate is largely over whether testimony-based beliefs are epistemically inferential or, like perception, memory, and introspection-based beliefs, epistemically direct” (Graham 2006, 93). By ‘testimonial justification’ I mean the justification a testimonial belief has when it counts as a fully justified belief (when ‘justification’ is understood as

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<sup>32</sup> I employ a broad account of testimonial beliefs and testimony, since on some accounts, the examples I bring to bear will not count as cases of testimony. My criticism will then also bring out the untenability of such views, since I take the cases to generalize (this is connected to the central claims in Part 6 and 7). See footnote 89.

<sup>33</sup> Here we come across another way of stating the aim of this thesis: following Kenyon (although his conclusion is not as strong as mine, and arrived at through different considerations (e.g. about the informational richness of testimonial contexts)), the aim would be to show that testimony-based (in the non-inferential sense) is an empty category: all testimonial beliefs belong in the category beliefs from testimony. This follows if inferentialism is true.

set out in section 1)<sup>34</sup>. In contemporary epistemology of testimony, what seems to be the standard view is *anti-reductionism*, the view that testimonial justification is non-inferential: one has a default non-inferential justification to believe what one is told, so long as one has no reason not to. So the resulting belief enjoys non-inferential justification. This is because the justification one has for a testimonial belief derives from a ground and from a foundationalist epistemic principle, on a par with epistemic principles for perception, introspection, memory, and so on, rather than from other justified beliefs the speaker has. Of course, one might often possess such other justified beliefs which support the testimonial belief, but the important point for the theorist supporting the default principle is that such additional reasons are not necessary for the belief to be justified: the testimonial belief is justified and as such does not depend upon further reasons. The default principle alone is doing the epistemological work of allowing the testimonial belief to be justified. It is incompatible with this view that the justification of testimonial beliefs depends in part on the justification for other beliefs of the subject (that such beliefs are necessary for the testimonial belief to be justified). As Lackey puts it “so long as there is no available evidence against accepting a speaker’s report, the hearer has no epistemic work to do in order to justifiably accept the testimony in question” (Lackey 2005, 4), resulting in a non-inferentially justified testimonial belief<sup>35</sup>. The problem that arises for such a view, however, is that it seems that following it would be “an epistemic charter for gullibility” (Fricker 1994, 143). If no epistemic work is required from the subject, it seems that even a subject believing everything she is told, without any monitoring, could acquire justified testimonial beliefs on any occasion. This seems implausible<sup>36</sup>. A further problem for this view would arise if it could be shown that the processes involved in testimonial belief-fixation are belief-dependent, and hence involve reasons – if so, it would not be true that testimonial beliefs are epistemically direct (non-inferential)<sup>37</sup>.

According to another view, *reductionism*, however, the justification for a given testimonial belief must derive from reasons on which the testimonial belief must be based; other things one justifiably

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<sup>34</sup> I do not, for instance, mean that justification which some hold derives from an epistemic principle governing testimony (I remain neutral on whether there is such a principle) either when it is based on a ground that is not a reason or when it is based on a reason but requires such justification *in addition*, rather than solely from further reasons. This latter sort may make for immediate testimonial justification. I do not deny that there is immediate testimonial justification in this sense. But when I employ ‘testimonial justification’ and related locutions I mean the full justification a testimonial belief has when it is justified – when ‘justification’ is understood in the sense above. The difference alluded to here may be parallel to the *pro tanto*/on balance justification distinction found in Graham 2006.

<sup>35</sup> Some views make a distinction between conditions for acceptance and conditions for justified belief, however (see Faulkner 2011 and Goldberg forthcoming). Most take these conditions to be identical, however. I shall assume so in this thesis, but nothing important depends on this.

<sup>36</sup> This objection is often responded to by imposing monitoring requirements. It is then claimed that these do not involve reasons: their function simply is filtering mechanisms. But it seems plausible that these can generate reasons of the kind required (cf. Pritchard 2004).

<sup>37</sup> Note that on some construals of anti-reductionism, it is simply the view that testimonial justification involves default justification. Such a view is not incompatible with this problem. More on this below.

believes. On this view, testimonial justification is inferential. There is no epistemic principle particular to testimony: we can account for testimonial justification by showing how it *reduces* to other kinds of justification for which we have given epistemic principles. Justification that a testimonial belief may possess is never of a distinctively testimonial kind. Let us say we have only one epistemic principle: one allowing perceptual beliefs to enjoy non-inferential justification under such-and-such conditions. In this case, if we want to claim that testimonial justification reduces to other kinds of justification, we must claim that the justification for testimonial beliefs derives from the non-inferentially justified perceptual beliefs (strictly speaking, we would need a principle for inference in addition to account for it). But of course we have many principles (assuming foundationalism; (pure) coherentism rejects all but one principle of coherence), and testimonial justification may derive from a variety of other kinds of justification: principles governing certain kinds of inferences – deductive, inductive, inferences to the best explanation; principles governing introspection; principles governing memory; and so on. A testimonial belief acquires justification from these sources through reasons that the subject has – beliefs that derive from these sources. As Graham characterizes the view it “embraces two theses: (a) inferentialism – justified acceptance requires positive background beliefs, and (b) epistemic priority – the background beliefs must come (in the end) from basic sources” (Graham 2004, 47). The problem that arises here, however, is that it seems that such background beliefs from more basic sources are absent in many cases where a subject nonetheless has a justified testimonial belief, ultimately leading to scepticism<sup>38</sup>.

Positions in epistemology can be characterized by which principles they accept (cf. Graham 2006) – anti-reductionism accepts that there is a testimony-principle and moreover that testimonial justification can be wholly explained in terms of it; and reductionism denies that there is a testimony-principle and moreover that testimonial justification can be wholly explained in terms of other kinds of justification (depending on what other principles they accept)<sup>39</sup>. There are room for a number of other views, however, since the question of whether testimonial justification is *sui generis* can be separated from the discussion of whether there is a principle governing testimony supplying default justification and from the questions of whether testimonial justification involves positive reasons. This does not seem to be Fricker’s 1994 view, who seems to think that the two positions above are the only possibilities (cf. Goldberg & Henderson 2006, 601):

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<sup>38</sup> This may be avoided by alluding to the informational richness of testimonial contexts (cf. Adler 2002, Kenyon 2012).

<sup>39</sup> We have set aside scepticism about testimonial justification here, of course, which would deny that there is such a thing to be explained: that testimonial beliefs are never justified. I accept Fricker’s (2002) common-sense constraint in this thesis: most testimonial beliefs are justified. A comprehension state – i.e. one’s representing it as being the case that S said that p, provides one with a reason to believe p. I shall assume an evidential account of testimonial reasons in this thesis: testimony serves as evidence. Such an assumption is not entirely controversial, however: Moran 2006 argues that testimony does not function as evidence, but rather as an *assurance* the speaker makes of the truth of p – the utterance is not offered as evidence that p. I shall not discuss this further, though I will return to it briefly in Chapter 4.



It may be shown that the required step - from 'S asserted that p' to 'p' - can be made as a piece of inference involving only familiar deductive and inductive principles, applied to empirically established premises. Alternatively, it may be argued that the step is legitimised as the exercise of a special presumptive epistemic right to trust, not dependent on evidence (1994, 128).

It seems that one can hold both that there is a presumptive right and that the hearer must have reasons in order to have testimonial justification. And indeed, a third view, known as dualism (see for example Lackey 2008, Ch. 6), holds that there is an epistemic principle governing testimonial beliefs, but at the same time that testimonial justification derives in part from other justified beliefs the subject has<sup>40</sup>. This view denies that testimony can be reduced to other kinds of justification, but it also denies that testimonial justification can be explained solely in terms of a non-inferential kind of justification. On this view, testimonial justification is inferential, in that the justification for a testimonial belief depends partly on the justification the subject has for believing other things. According to one such view "an adequate view of testimonial justification or warrant needs to recognize that the justification or warrant of a hearer's belief has *dual sources*, being grounded in both the reliability of the speaker and the rationality of the hearer's reasons for belief" (ibid., 177). Here the reliability condition on the speaker constitutes an epistemic principle, specific to testimony. However, the dualist view may take many forms. The key point is that testimonial justification cannot be reduced, but at the same time it cannot be explained entirely in terms of an epistemic principle. The virtue of this view is that it seemingly can avoid the objections raised for anti-reductionism and reductionism, drawing on the best parts of the two positions: the reasons needed need not supply the justification on their own, since there is a kind of default justification that supports the belief in addition, but by requiring reasons, the views seems to avoid accusations of sanctioning gullibility.

In order to acquire a testimonial belief, comprehension is of course necessary. One cannot acquire the testimonial belief that p from Susan's testimony to p without comprehending her testimony. And it seems that in order for one to acquire a justified belief from her testimony, the comprehension must be in good epistemic shape. So it seems that, on order to give a correct account of the epistemology of testimony, we need an account of the epistemology of comprehension. As Fricker notes

our account of the epistemic status of testimony-beliefs must mesh with our account of a closely related matter: how it is that [the hearer] understands what she hears, what is involved in this, and if – as seems plausible – it

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<sup>40</sup> Note that this is stated in terms of doxastic justification. But some views hold that to have a justified testimonial belief, it suffices that one has propositional justification (in addition to non-inferential testimonial justification) – that is, one must *have* positive reasons, yet the belief need not be *based* on those reasons. This kind of view seems to be endorsed by Faulkner (2011). But it is hard to see what value a reason that one has without it being a basis for a belief can contribute to making that belief *justified* (as opposed to justifiable).

entails knowing that she has been told by [the speaker] that P, how this epistemic feat is achieved. Thus an epistemology of testimony needs to be complemented by an epistemology of understanding. (Fricker 2004, 110)

In the following section, I briefly present the epistemology of comprehension.

### 1.3: The Epistemology of Comprehension

The epistemology of comprehension concerns the epistemic status of comprehension states – states in which a hearer represents a speaker to have said that p upon being confronted with an utterance<sup>41</sup>. It is closely connected to debates about the nature of comprehension states. What kind of epistemic status a comprehension state can have depends upon its nature: if it is a nondoxastic, e.g. experiential, state, it will not require justification; it will not be warrant apt, to borrow Pettit's phrase (2010). As Alston notes about nondoxastic states in general, "the notion of epistemic status does not apply to that kind of ground" (Alston 2005, 122). On a widespread view, perceptual experiences are such states: we do not ask whether a person is justified in having e.g. the perception as of a table. The question arises only if the state in question is a *belief*, e.g. about the presence of a table. On most views, the former state can *confer* justification on the latter, but it does not do so in virtue of itself possessing any epistemic status. However, if perceptual experience were a type of doxastic state, e.g. if perceiving a table in front of one amounted to believing that there were a table in front of one, we could ask whether one were justified in so believing. If that state were to serve as a basis for further belief, it would not confer, but rather transmit justification, since it can justify only in virtue of itself deriving its justification from either a nondoxastic state or further beliefs. Parallel problems arise in the epistemology of comprehension: Is the comprehension state a doxastic state, and thus in need of justification, or is it a nondoxastic state to which justification does not apply, but that can confer justification on beliefs based upon it? Debates in the epistemology of comprehension are largely over this question of the nature of the comprehension state, and how it is justified, if it requires justification<sup>42</sup>. If it is assumed that the comprehension state is a doxastic state, the question of how it is justified arises: is it epistemically inferential, e.g. does it derive its justification from further beliefs, or is it epistemically direct, e.g. does it derive its

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<sup>41</sup> This is a simplification. The hearer might take more than one proposition to be expressed, and the utterance might be represented to be of a different force than a saying, e.g. a question or a command. Further, the utterance might be a hallucination – no utterance need be made; the hearer nevertheless enters a state of comprehension of the sort under discussion.

<sup>42</sup> There are many notions of *understanding*. I use it to refer to occurrent states of hearers (for an inventory of different notions, see Longworth 2008.) It may appear that such states are factive: if you say that p and I represent you as having said that q, I have not understood your utterance. Nevertheless, I am in a state of representing you to have said something. I follow Hunter 1998, 567 in individuating states by their origin and cognitive role, not merely by their accuracy. I intend to refer to the latter non-factive notion when using the term 'comprehension state' and connected locutions. There are further questions about conditions under which such states count as genuine understanding, and about comprehending the force of the utterance. I will not discuss them further here.

justification from a nondoxastic state? A belief based on the comprehension state will be non-inferentially justified if it is a nondoxastic state, and inferentially justified if it is a doxastic state.

According to one view, the comprehension state is an experiential state much like a perceptual state: it is an *understanding-experience* (see Fricker 2003, Hunter 1997; 1998, Pettit 2010; Millikan 1984; Burge 1993 holds a related view). Certain versions of this view hold that it *is* a perceptual state; Pettit calls it the *perceptual view*. It is claimed that the access one has to communicated contents is *direct* in the same sense as our access to the world through perception is epistemically direct. The view is crystallised in the following thesis:

(T) Understanding is [a] [...] source of immediate prima facie justification for beliefs about what things mean<sup>43</sup> (Hunter 1997, 119)

The first thing to note is that on such a view, understanding-experiences, that is, states of understanding, must be distinguished from states of belief. Otherwise, the justification conferred by such a state would no longer count as immediate. Understanding and belief are distinguished by appealing to the fact that one can understand an utterance without forming a belief about what is said: for instance, when A says that John is clever, one can grasp the content of this utterance – understand it to mean that John is clever - without believing that A said that John is clever, owing to the fact that one believes that one’s auditory system is not functioning properly. Since in this case we would want to say one has understood the utterance, but we do not want to say that one believes that A said that John is clever<sup>44</sup>. The state of comprehension must be distinguished from a state of belief. This allows for beliefs about what is said as immediately justified, so that, for instance, “if S’s belief that Jones said that Clinton is President is justified, and is based on S’s understanding of Jones’ utterance, then the belief is immediately justified, since states of understanding are not states of belief” (Hunter 1997, 125). Understanding may serve as grounds for belief because it is reliable in producing veridical states of understanding; and forming beliefs based on understanding is reliable – “understanding is reliably linked to truth” (ibid., 128). In this way, the immediate view corresponds to accounts of immediate justification for perceptual beliefs.

In regarding understanding as an experience, the immediate view is particularly impressed by the phenomenology of understanding: “Our awareness of the content of speech is typically immediate

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<sup>43</sup> Presented and defended by David Hunter in his 1997. Hunter’s thesis contains the bolder claim that understanding is an a priori source of immediate justification (see also Burge 1993). Hunter’s discussion of immediate justification can be disconnected from his claims about the a priori. I leave aside questions of the a priori in this paper.

<sup>44</sup> Hunter 1998 argues that we should not say that one has a belief about what is said in such cases because one would not be disposed in such cases to judge or assert e.g that A said that John is clever. These conditions are open to dispute, but I will not pursue this problem here.

and unreflective” (Pettit 2010, 13). In hearing your utterance, it just seems to me that you are saying such-and-such. According to one version of the immediate view, this phenomenological seeming provides a sufficient justifying ground for the belief that you said such-and-such and for testimonial beliefs – it is not itself a belief, for the reasons given above. Briefly, supporters of the immediate view hold that there can be grounds for beliefs about what is said and testimonial beliefs that are not reasons; in the absence of defeaters, if a belief about what is said or a testimonial belief is based on such a ground, it will enjoy immediate justification. The immediate view does not deny that in some cases such beliefs may be based on reasons; their claim is that in normal cases understanding is in some sense direct, and the justification is immediate, as is the phenomenology.

On another view, the comprehension state is a doxastic state to which justification applies. A person who has entered a state of comprehension is in a state of believing something to the effect that the speaker has said that p. The state can thus be assessed for justification, and an explanation of the justification in question is needed: is it non-inferential justification that is conferred upon the comprehension state by some non-doxastic state, or is it inferential justification that derives from further beliefs? The view I am about to espouse in this thesis claims the latter: it argues that the belief about what is said that is the state of comprehension is an inferential belief, and I am now in a position to present it further.

#### **1.4: Inferentialism**

In this section I present two versions of inferentialism: one about the epistemology of testimony and the other about the epistemology of comprehension. As we have seen, a justification for a belief is inferential if it depends partly on the justification of other beliefs the subject has – if the belief is belief for a reason. Inferentialism in the epistemology of testimony holds that the justification of testimonial belief is always inferential in this sense. Inferentialism in the epistemology of comprehension holds that the justification of the outputs of the process of comprehension is always inferential in this sense. They are views about testimonial and comprehensional *justification*<sup>45</sup>.

Inferentialism in the epistemology of testimony is the view that the justification for testimonial beliefs is always inferential, since the justification for the belief always derives in part from the justification for a belief about what is said. A belief is inferentially justified if it depends for its justification wholly or partly on justification for other beliefs the subject has. Note, as is obvious,

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<sup>45</sup> As I noted in Section 1 I must not be taken to be arguing for any position on the conditions required for testimonial knowledge or comprehensional knowledge. If one takes justification to be tied to knowledge – that it is necessary for it, for instance - the view may have consequences for one’s view about testimonial and comprehensional knowledge. I take no stand on this, however.

that this is *not* intended as a full account of the epistemology of testimony: it is, rather, a fact that must be accounted for in a full account. Inferentialism may be compatible with a number of accounts. But it is incompatible with the view, presented in section 2, that testimonial beliefs are non-inferentially justified. This does not mean that it is incompatible with anti-reductionism, if anti-reductionism is the claim that there is a distinctive kind of non-inferential testimonial justification. That testimonial beliefs enjoy this kind of justification is entirely compatible with them also enjoying inferential justification: again, a belief is inferentially justified if it depends wholly or *partly* on the justification for other beliefs. Part of the justification may be non-inferential. Indeed, non-inferential justification may be necessary for the testimonial belief to be justified. But the inferentialist remains neutral on this: her only claim is that having a justified belief about what is said is necessary for a justified testimonial belief; and so testimonial beliefs will always be justified inferentially. So inferentialism must be distinguished from reductionism, the view that testimonial justification reduces to other kinds of justification. As shown, inferentialism is compatible with the view that there is a distinctive kind of testimonial warrant. It denies, however, that a testimonial belief can ever be fully justified non-inferentially. So it may be taken to embrace at least part of the reductionist doctrine that one must possess reasons for one's testimonial beliefs. It does not take a stand on whether the hearer must possess *positive* reasons in favour of accepting the testimony: such reasons may be beliefs about the trustworthiness of the speaker, the competence of the speaker, and so on. The only reason the inferentialist claims must be possessed by the hearer (not that this is the only reasons the hearer must possess: it does not claim that this reason is sufficient for justification) is the belief that the speaker said that *p*. Since this is a belief that itself requires justification, the testimonial belief is inevitably inferentially justified (on the construal above).

Inferentialism embraces one part of the reductionist thesis, the claim that justified acceptance requires justified background beliefs. This must be qualified, however, since the only thing it requires is that a testimonial belief be based on a belief about what is said – this might not count as a positive background belief. So inferentialism must be distinguished from reductionism. As noted, reductionism is the view that testimonial justification reduces to other kinds of justification; it can be explained by appealing to e.g. perceptual justification, inductive justification. Inferentialism can remain neutral on this issue; it does not entail that testimonial beliefs cannot enjoy a distinctive kind of justification, nor does it hold that it does. Thus, it is also compatible with anti-reductionism, the view that there is a distinctive kind of testimonial justification. Inferentialism is simply the view that a testimonial belief's justification is never entirely independent from the justification the subject has for other beliefs.

In one sense it also embraces the second claim; that the background beliefs must come (in the end)

from basic sources. But not all of them: The claim is that a testimonial belief must always be grounded in a belief about what is said. However, as Goldberg notes, a possible view “holds that a hearer’s recognition that S said that p counts as a reason for the hearer to believe that p, but that the status of S’s say-so as such a reason does not depend on the hearer’s having any positive reasons to regard that say-so as credible.” (Goldberg 2010, 141). Such a view would be compatible with anti-reductionism if anti-reductionism is the claim that one is not required to have positive reasons for a testimonial belief in order for it to be justified. It would still hold that testimonial justification is inferential, since the justification depends partly on the justification of the belief that the speaker said that p.

The view may be in tension with certain views that holds that testimony is analogous to perception: the inferentialist emphasizes the operational dependence of testimony on other sources, given that an intermediary belief is required. It holds, rather, that testimonial beliefs are analogous to the kind of inferential-perceptual belief in the following scenario: Susan believes that it has rained on the basis of seeing that the streets are wet. Here Susan has the intermediary belief that the streets are wet. She infers from this (and probably some other beliefs) that it has rained. Her belief that it has rained depends partly on her (perceptual) justification for the belief that the streets are wet. Her perceptual belief that the streets are wet is presumably non-inferentially justified on the basis of her experience. This demonstrates the crucial difference between testimony and perception for the inferentialist: they agree with Burge that “reasons must be propositional” and that

perceptual beliefs are not normally reason based. The normative transition from perception to belief is not a piece of reasoning. If perceptual representations were reasons for perceptual beliefs, such transitions should count as reasoning. But they do not. Such transitions are not justifications in the traditional sense. They are normative elements in entitlement to perceptual belief.” (Burge 2003, 528; also cited in Casullo 2007, 274)

The inferentialist point is that comprehensional representations are reasons for comprehensional beliefs (that is, for the comprehension state), and therefore that transition from hearing an utterance to a comprehension state must count as a piece of reasoning. The representations are reasons precisely because the transitions are dynamically inferential: the representations instantiate the basing relation with the output comprehensional state. They hold therefore that such transitions *are* “justifications in the traditional sense”, here meaning inferential justification.

Thus, testimony may be analogous to perception in the sense that non-inferential justification may be involved, but it is disanalogous to perception in the sense that there is an intermediary belief that itself requires justification which the resulting testimonial belief is partly based on, so that the latter’s justification partly derives from the justification of the former. The particular way of

arguing for inferentialism that will be pursued throughout this thesis brings out the operational dependence of testimony on other sources and capacities in a new way. It is often argued that the operational dependence testimony has on other sources is not epistemically relevant: they are just enabling conditions; they do not enter into a justification for the testimonial belief. My way of arguing for inferentialism deals with this objection, and shows how some of the factors causally responsible for producing testimonial belief are epistemically relevant.

The particular kind of inferentialism in the epistemology of testimony I favour follows from inferentialism in the epistemology of comprehension. The epistemology of comprehension deals with the epistemic status of the mental states that are outputs of the process of comprehending a speaker's utterances. On one view, such states are analogous to perceptual states in that they do not require justification; rather, they confer non-inferential justification on beliefs grounded in them. On another view, such states themselves require justification in order for them to confer justification. This latter view is inferentialism. It holds that the justification of a mental state that is the output of comprehension depends partly on the justification the speaker has for other mental states. We should note that inferentialism in the epistemology of testimony is compatible with either of these views. For instance, one may hold that a testimonial belief is based on a belief about what is said, but that this latter belief is not the output of the comprehension process; rather, it is based on the output of the process, which may be a state that does not require justification; instead it confers non-inferential justification on the belief about what is said. This would be non-inferentialism about the epistemology of understanding combined with inferentialism in the epistemology of testimony. This is a way of arguing that the state upon which testimonial beliefs are based is a state that itself requires justification; the hearer must know that the speaker said that *p* in order to form the belief that *p* herself, without holding that the epistemology of comprehension is inferential. This seems to be Fricker's position: she holds that "one can learn that *p* through someone's telling one that *p* only if one knows, or is in a position to know, that one has been told that *p*" (Fricker 2003, 327ff), yet the point of the cited paper is that comprehension states is a kind of state that confers non-inferential justification. It seems, then, that she is claiming that comprehension states confer immediate justification on the belief *that one has been told that p*, rather than, as some seem to hold (cf. Graham 2005, 2010 etc.), that the comprehension state confers immediate justification on the belief *that p*. On the other hand, one may hold that a testimonial belief must be based on a belief about what is said, and that the latter is the output of the comprehension process, so that it requires justification. It may be possible to argue that a belief about what is said is the output of the comprehension process while denying that the belief is inferentially justified – perhaps a state that is part of the process confers non-inferential justification on it. It is also possible to hold that the

output of the comprehension process is a testimonial belief. Yet another seemingly possible position is holding inferentialism in the epistemology of comprehension while embracing non-inferentialism in the epistemology of testimony. I shall consider various possibilities in Chapters 3, 4, and 5. I will show that certain facts about the nature of the comprehension process favours the inferentialist view that a belief about what is said is the output of the comprehension process and that its justification depends partly on the justification of other mental states involved in the process. I will argue that it is not possible to be an inferentialist in the epistemology of comprehension while being a non-inferentialist in the epistemology of testimony. Inferentialism in the latter follows from inferentialism in the former. Inferentialism holds that (i) the state of understanding is a doxastic state that requires justification, and (ii) the state must enjoy inferential justification. Arguing that the epistemology of comprehension is inferential in this way is one way of arguing that comprehension is not an absolute starting point in the epistemology of testimony. If the epistemology of comprehension is inferential, comprehension, which serves as input to testimonial belief-forming processes, itself requires support from reasons. In short, I shall argue that if the inferential model of communication is true, then inferentialism in the epistemology of comprehension is true, and further that if inferentialism in the epistemology of comprehension is true, then inferentialism in the epistemology of testimony is true.

Again, inferentialism is not, as presented here, a position on the question of whether there is an epistemic principle governing testimony; whether testimony is *sui generis*. What it denies is that testimonial beliefs can be epistemically basic. It might be the case that there is an epistemic principle governing testimony, even though testimonial beliefs cannot be basic<sup>46</sup>. Even though much discussion in the epistemology of testimony concerns whether testimonial justification is *sui generis* or not, inferentialism still places important constraints on theorizing, and it is contrary to some widely held views in the debate. Audi, for example, takes testimony to be a case of a non-basic source of belief being a source of basic beliefs: for him, this is an important point:

A major epistemological point that the case of testimony shows is that a basic belief – roughly, one basic in the order of one’s beliefs, and so not premise-dependent – need not come from a basic source of belief: roughly, one basic in the order of cognitive sources and so not source-dependent” (Audi 2011, 155).

If inferentialism is correct, this cannot be the case: testimony is not a source of basic beliefs. It holds that neither testimonial beliefs nor beliefs about what is said belong in the category of basic beliefs, that is, beliefs that are justified without depending for that justification on the justification the person has for other beliefs. They are non-basic. Their justification must be accounted for in terms of basic beliefs (if one is a foundationalist).

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<sup>46</sup> Though in Chapter 5 I suggest that this may not be possible.



To clarify, the view of testimonial justification advanced here echoes one suggested, though not endorsed, in Casullo 2007, made in a slightly different context:

Both understanding the content of a communication and understanding its assertive force, [...], are paradigmatic examples of states that are propositional. Since the entitlement to accept the testimony of another is based on propositional states, it is based on reasons (even on the narrow construal of reasons). Moreover, those reasons are accessible to the cognizer. Therefore ... the warrant conferred [by a testimonial principle] ... is justification rather than entitlement. (Casullo 2007, 273)

The term ‘justification’ as here employed corresponds roughly to my term ‘inferential justification’, while ‘entitlement’ corresponds roughly to my term ‘immediate justification’: “‘entitlement’ [is used] for positive epistemic support or grounds in favour of belief when the support or grounding does not involve or depend upon evidence or reasons” (Graham 2010, 148). My argument has been that the states of understanding the content of communication are propositional and that they stand in need of justification. Since testimonial beliefs are based on such states, they are beliefs for reasons. And, on my construal, a belief for a reason that requires justification is always an inferentially justified belief: it derives its justification in part from the justification of the reason(s) in question<sup>47</sup>. So testimonial beliefs are inferentially justified. That is the central inferentialist claim in the epistemology of testimony. Inferentialism in the epistemology of comprehension claims not only that “understanding the content of a communication and understanding its assertive force are paradigmatic examples of states that are propositional”, it claims further that such states are inferential, since they are based on reasons – and hence they too enjoy inferential justification. As noted above, versions of this view appear on most views that make a distinction between inferential and non-inferential justification, for instance in terms of the belief-dependence of the process that produces the target beliefs.

My brand of inferentialism in the epistemology of testimony, I will argue in Chapter 3, follows from inferentialism in the epistemology of comprehension. A key point will be to motivate inferentialism in the epistemology of comprehension. This will be done in Chapter 2 by connecting our accounts above of believing for a reason, inference and a causal account of the basing relation with the main assumption of the thesis. This is the inferential model of communication, a brief exposition of which I will turn to now.

## 1.5: Psychological Assumptions

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<sup>47</sup> I note again that some regard experiential states as propositional: they may therefore be reasons, even on my construal. That does not imply that beliefs based on such reasons are inferentially justified. But note that I add that certain reasons also stand in need of justification: and my argument is that that is the case with states of understanding (that will be the result of Chapter 2).

Here I present the central assumption of this thesis: the inferential model of communication. The central claim of the inferential model of communication is that, in order to grasp what a speaker means by an utterance, a hearer must make an inference to the best explanation of the utterance (stemming from the work of H. P. Grice (collected in his 1989)). One will not count as having comprehended an utterance unless one grasps what the speaker meant by it – so inference is necessary for comprehension. It is not enough simply to decode the utterance: this will not yield comprehension. Why not? Because when a speaker communicates, what she expresses is a certain intention. A simple decoding of the words she employs cannot yield a representation of this intention. Moreover, what a speaker means often goes far beyond the meaning her words encode. The picture of communication we get is very different from the picture of communication as simply coding and decoding. Central theorists set out the inferential picture as follows:

According to the inferential model, a communicator provides evidence of her intention to convey a certain meaning, which is inferred by the audience on the basis of the evidence provided. An utterance is, of course, a linguistically coded piece of evidence, so that verbal comprehension involves an element of decoding. However, the linguistic meaning recovered by decoding is just one of the inputs to a non-demonstrative inference process which yields an interpretation of the speaker's meaning. (Sperber and Wilson 2004, 607)

The communicated meaning may be conveyed implicitly or explicitly: we may make a distinction between implicit and explicit content. By ‘explicit content’ I mean the proposition(s)<sup>48</sup> expressed by the utterance, arrived at by decoding the semantic material of the utterance and by inference. I shall use the term ‘what is said’ to refer to this notion. Determining what a proposition a speaker explicitly expressed by an utterance is determining what the speaker said by that utterance. By ‘implicit content’ I mean the proposition that is *implied* by the utterance, and arrived at through inference from the proposition explicitly expressed<sup>49</sup>. Both propositions expressed and propositions implicated can serve as the basis for testimonial belief. That inference is needed to grasp propositions implicated is uncontroversial<sup>50</sup>. Recent debate has shown that inference is needed to grasp propositions explicitly expressed as well (see especially Carston 2002). The question at stake here is what goes into determining the proposition explicitly expressed by an utterance: is it wholly determined by semantics, or does the proposition expressed go beyond the content contributed by semantics so that pragmatic factors must be taken into account as well? The latter view has been

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<sup>48</sup> I shall continue to use ‘proposition expressed’ in the singular, even though strictly speaking what the speaker expressed (or implied) may be a set of propositions. For the purposes of the epistemology of testimony and of comprehension, it is simplest to focus on a central proposition expressed or implicated (or both at the same time for a given utterance). Questions about e.g. the set of propositions expressed by an utterance raises difficulties I cannot go into in this thesis.

<sup>49</sup> This does not imply that these must be derived sequentially. They may be derived in a process of *mutual adjustment* (see e.g. Wilson & Sperber 2012, 14-15). If they can be, this should give us a strong reason to believe that the same type of process is involved in implicature derivation and derivation of the proposition expressed (see Carston 2002). Since most would agree that deriving implicatures is an inferential matter, this may be a way of convincing non-inferentialists about derivation of the proposition expressed. I shall return to this argument later in the thesis.

<sup>50</sup> And many would hold that comprehension of them also is justified inferentially (cf. Burge 1993, 483, fn 21).

called ‘truth-conditional pragmatics’: the view that pragmatic factors go into determining the truth conditions of the propositions explicitly expressed by an utterance. But this debate is slightly tangential to my concerns, since as Neale notes, however we proceed in this debate, it seems that we must admit that pragmatic inference is needed in a theory of comprehension of propositions expressed. Even on a view opposed to truth-conditional pragmatics, that for instance tries to solve the problem by introducing hidden constituents such as indexicals, “the heavy lifting is done by pragmatic inference because interpreting utterances of sentences containing [e.g.] aponic “indexicals” is a pragmatic, richly inferential matter, the product of integrating linguistic and non-linguistic information.” (Neale 2007, 82)<sup>51</sup>. Even a proponent of the latter view holds that “the interpretation of context-sensitive expressions is obviously and non-controversially guided via consciously accessible inferences from background beliefs.” (Stanley 2005, 132 fn1). I do not assume that such inferences must be conscious in this thesis, as it is not uncontroversial that they are, and since I think my conclusions can be established even on the claim that the inferences are unconscious. But Stanley’s claim serves to illustrate the wide acceptance of the inferential model of communication, even amongst authors who have expressed doubts about the contribution of pragmatics to the proposition expressed. So I will assume that “figuring out what a speaker means is always a matter of inference” (Bach 2010, 4), regardless of whether the speaker uses literal or non-literal language, expresses propositions explicitly or implicitly, and so on. Comprehension is thus always inferential<sup>52</sup>.

On one version of the inferential model, comprehension is psychologically inferential: in order to arrive at a hypothesis about the speaker meaning (a belief about what is said), one must perform (this does not imply agency) a causal psychological inference to the best explanation of the utterance. Here, a number of mental states that are taken as input (a contender may be the belief that S said ‘x’), result in the formation of a new belief as output (a contender may be the belief that S

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<sup>51</sup> To put this another way: I am here concerned only with the epistemology of interpretation, not the metaphysics of meaning/content. That is, I do not want to commit myself to any view regarding what constitutes linguistic meaning, ‘what is said’ or where to draw the semantic/pragmatic distinction, only to a certain view about how a hearer can grasp the contents communicated (these are easily confused (see Devitt 2013)).

<sup>52</sup> In addition to identifying the context, the proposition expressed and the proposition implicated, in order to comprehend an utterance, a hearer must identify its force. This is certainly important in the case of testimony: Grasping the force of an utterance is necessary if one is to acquire justified beliefs from it. In the case of overhearing, for instance, Moran notes, “Just hearing someone say ‘The rain in Spain falls mainly on the plain ...’ will not give an overhearer a reason to believe anything about the weather in Spain unless he knows what illocution, if any, is being performed with those words” (Moran 2013, 117). Although it is too strong to claim that he must know the illocution – that he has reasons to believe that it was performed with a certain force should suffice to give him reasons to believe the fact testified to – it is clearly right that, not only for overhearers, but for everyone who is to receive justified testimonial beliefs, they must identify the illocutionary force of the utterance. I shall not be concerned with grasping force in this thesis – my discussion will rather be in terms of inferring the content of utterances. See Bezuidenhout 1998 for a (congenial) discussion of what is involved in identifying the force of an utterance.

said that  $p$  – a representation of the speaker intention). The process is episodically inferential, in that it involves a “tokening, e.g. internal recitation, of that structure which deserves the name ‘inferring  $p$  from  $r$ ’” (Audi 1993, 238). The claim is not that the process must be conscious, explicit or voluntary: it can be unconscious, spontaneous, automatic, involuntary, and so on. A strong variant of this version of the inferential model may hold that the process is conscious, etc., but I do not assume this here. The only claim that this version of the inferential model makes is that comprehension involves an inferential process taking one from hearing an utterance to a hypothesis about speaker meaning. (As we saw above, some claim that a necessary condition for being inferential is being conscious – they may want to dispute that comprehension can be inferential on the grounds of such a condition. I discussed this view above, and will return to it in later chapters). The inference process must, however be distinguished from processes involved in perception or semantic parsing sometimes said to be ‘inferential’. Here is Fodor on the processing involved in parsing:

A parser for [a language]  $L$  contains a grammar of  $L$ . What it does when it does its thing is, it infers from certain acoustic properties of a token to a characterization of certain of the distal causes of the token (e.g., to the speaker's intention that the utterance should be a token of a certain linguistic type). Premises of this *inference* can include whatever information about the acoustics of the token the mechanisms of sensory transduction provide, whatever information about the linguistic types in  $L$  the internally represented grammar provides, *and nothing else*. (Fodor 1984, 37, emphasis added)

What distinguished an inferential process in the sense of the psychological version of the inferential model of communication from these processes, is that the former involves cognitive mental states with propositional content; they may be beliefs but need not be. The processes are cognitive, while the processes involved in perception and parsing are (presumably) sub-cognitive<sup>53</sup>. Rysiew thinks that comparing the processing involved in comprehension and perception

be illuminating. In vision, say, it undoubtedly appears as though we simply open our eyes and see – it seems as though the eyes are, as it were, simply a window onto the world. Such phenomenology aside, though, no one doubts that a good deal of processing by the visual system, itself employing certain ‘assumptions’, is involved in the generation of this or that perceptual experience. (Rysiew 2007, 289)

But this comparison is misleading. For the processing involved in comprehension is very different from that involved in perception. Comprehension is an *inferential* process in the above sense – this is not the case with perception (the disagreement with Fodor above is terminological). The claim, then, of the inferential model of communication is that belief-fixation through comprehension is, possibly unlike perception and memory, a cognitive process operating on mental states with propositional contents. It is sometimes claimed that the inferences are sub-cognitive (cf. Goldberg

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<sup>53</sup> A further difference is noted by Sperber and Wilson: “because the input and output of a syntactic transformation are not related as premise and conclusion in an argument, the computation is not interpretable as inferential.” (Sperber and Wilson 1987, 737)

2010, 98). This claim is rejected. But the processes may nonetheless be sub-personal, unconscious, involuntary, automatic, inexplicit, intuitive, and spontaneous, etc. Even so, the claim of this version of the model is that the process is psychologically and episodically inferential: “The picture that emerges is that pragmatic interpretation is carried out by goal-directed inference, regardless of whether the inference is conscious or not, consciously available or not, personal or sub-personal.” (Allott 2008, 250). The details of the inference to the best explanation for the utterance – questions as to what mental states figure as premises, and so on – are largely left open, although since “the communicator produces a piece of evidence of her meaning - the ostensive stimulus - and the addressee infers her meaning from this piece of evidence and the context.” (Sperber & Wilson 2012, 102), we may assume that the mental states involved are whatever can count as evidence of the speaker’s meaning (the context is a set of representation employed by the hearer in comprehension). Different theories employing the inferential model of communication may spell this out in different ways (and different theories involve different accounts of what *guides* the inference involved. This I will not go into). The consequences drawn later in this thesis from the inferential model relies only on the features shared by all such theories (features they must have if they are to count as using the inferential model of communication, which is the minimal assumption made here).

On another version of the inferential model, comprehension is structurally inferential, but not necessarily psychologically (causally) inferential. By ‘structurally inferential’ I mean that the model spells out certain pieces of information (and “how this information is logically organized.” (Bach 2005, 8<sup>54</sup>)) that a hearer must take into account in order to recognize the proposition expressed: a structure of propositions that mediate the conclusion that the hearer reaches through comprehension. The further crucial point is that this version remains neutral on how this is psychologically instantiated (it may not involve processes that we would recognize as psychologically inferential). So on this version comprehension is structurally inferential, in that the output of comprehension is mediated by a structure of propositions (the comprehension process must fit into the logical scheme that the model spells out), but not (necessarily) psychologically inferential. Here, an inference is implicated in the standing of the belief that the hearer arrives at through communication, yet the belief might simply be formed immediately or “intuitively” (in a sense that does not involve episodic inference). Another way to say this is to say that the beliefs that are the output of comprehension *imply* “evidential grounding in further belief” (Audi 2001, 35). The

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<sup>54</sup> Bach is here discussing Grice’s theory of implicature recovery. First, his interpretation may not be correct: Grice may have intended his account to be committed to certain views about psychology. Second, I am not taking about recovery of implicature but of the proposition expressed.

idea is that they can be so without them being inferentially grounded. Audi explains the notion of a structurally inferential belief more generally:

We have not considered grounds for holding them, or at least have not explicitly formed the beliefs, on the basis of inferring conclusions from premises. [...] They are premise-dependent as inferential beliefs typically are, yet are not inferentially grounded. Even if they have been arrived at by a process of drawing an inference, they are not at the time in question based on a process of inference. (Audi 2001, 35)

The key point is that on this view, comprehension need *not* be a mental process of inference. The view remains neutral on the psychological nature of comprehension. It holds, rather, that in the beliefs produced by comprehension, *imply* grounding in a structure of propositions. Schiffer makes an illuminating claim in a related context: “Whether knowledge is based on inference from evidence isn’t about the actual movement of thought, the considerations one actually ponders; it’s about the structure of beliefs that sustain one’s conclusion.” (Schiffer 2003, 2315). Similarly, on the structural version of the inferential model, whether an output of comprehension is based on inference is about the structure of propositions that sustains it, not about the “actual movement of thoughts” – where ‘inference’ is used in the wider structural sense. So the output of the comprehension process need bear no causal relation to a set of premises – they support the output in a “purely justificatory way” (cf. Audi 1993, 55). This view remains neutral on Russell’s idea that “an epistemological premise must also be a “psychological premiss” (Audi 1993, 56 fn7). The structural version of the inferential model makes use of the view that “the support you have to believe P can be mediate (or “inferential”) even if you didn’t arrive at P by deriving or inferring it from other beliefs” (Pryor 2005, 183).

Again, even though this may be clearer in the case of the structural version, neither of the two versions of the inferential model claims that the inference in question must be consciously available. Neither do they predict anything about the phenomenology of comprehension: the hearer may be phenomenologically unaware of the processes in question. On both versions, the belief may be formed immediately or intuitively from the hearer’s perspective. The difference is that the psychological version claims that the process must be psychologically inferential, while the structural version claims that it may be psychologically direct or immediate (whatever this means). A process that is episodically inferential is always structurally inferential, but not vice versa.

The inferential model contrasts with the code model, according to which semantic decoding is sufficient to yield understanding of utterances.

Philosophers sometimes write as though a sentence’s meaning were constructed out of rigid, preformed lexical meanings in something like the way a three-dimensional figure may be constructed out of pieces of Meccano. (Rumfitt 2005, 452)

As he goes on to note, correctly: “The use we make of sentences in communication, however, is far more fungible than this picture would allow” (ibid.). And processes and decoding and inference are very different: “An *inferential process* starts from a set of premises and results in a set of conclusions which follow logically from, or are at least warranted by, the premises. A *decoding process* starts from a signal and results in the recovery of a message which is associated to the signal by an underlying code” (Sperber and Wilson, 1995, 12-13 – see also 177, 83, 71, 183-193)<sup>55</sup>. In general, everyday cases show that the speaker meaning goes far beyond the meaning (if any) that can be discerned from the words employed – the decoding process does not yield a full message, and an inferential process must thus be assumed to be present in order to explain how hearers grasp the full message<sup>56</sup>. This is the realization that partly motivates the inferential model of communication. I will now go on to give a brief statement of the ways in which semantic decoding is insufficient to account for how understanding is achieved. I do not offer arguments in favour of the inferential model of communication, neither do I motivate either of the two versions: I content myself with offering motivations for the general model. Since I want to spell out epistemic consequences of the model, I largely assume it. Those who remain unconvinced by the motivations offered here, may view the thesis in conditional terms. Certain criticisms of the inferential model, which bear on the larger epistemic issues, are discussed in Chapter 5. Otherwise, the model is not defended. Again, the primary motivation for the inferential model of communication derives from the realization that that which the speaker means in making an utterance in a wide range of cases differs from that which the words she employs mean<sup>57</sup>. More specifically, communicated content is underdetermined by the semantic content of an utterance.

Often cited examples are: (a) You are not going to die [from that cut], (b) Everyone [in a specific group] is happy, (c) Holland is flat [has few hills and mountains], where the material in brackets specifies content that is part of the proposition expressed, but not part of the semantic material. Such examples proliferate; it is a pervasive feature of communication, along with other forms of

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<sup>55</sup> Recently, Sperber and Wilson have suggested that their notion of an inference is biological. An inference is to be understood as changes in a pattern of activation in a network, not as a causally connected series of credal attitudes. They have suggested that their notion of an inference is *not* to be understood as necessarily involving propositional states (though it must involve representational states of some kind), and that the step-by-step derivation procedures traditionally associated with the notion of an inference are rarely instantiated (this has been suggested in talks, and I am also informed of this by Nicholas Allott (personal communication)). They have also suggested that their notions of *warrant* and *truth* are to be understood in terms of usefulness and successfulness for the organism. These views are revisionary, and I shall ignore them in this thesis. It is clear that the inferential model as I have presented it is nearly universally accepted in the fields of pragmatics and the philosophy of language, and I shall assume it without addressing reductive interpretations, even though it is clear that my conclusions would not necessarily follow if such interpretations of the model were true. I shall continue to assume that an inference is a process whose output is a belief that is warranted by the premise beliefs that are the inputs.

<sup>56</sup> As noted, there are other options. I shall not explore those here.

<sup>57</sup> In the testimony literature, the utterances discussed in the literature typically involve full sentences. But in many cases, speakers employ phrases or single words.

context-sensitivity, and cannot be brushed off as a special case (as some seek to do with metaphor, irony and the like (cf. Burge 1993, 483)). It is clear that semantic decoding cannot account for comprehension of such utterances: and this is clear even in more standard cases of reference resolution, disambiguation, metaphor comprehension, and so on.

In this section I have set out the central assumption of the thesis: in order to comprehend what a speaker meant by an utterance, the hearer must make an inference. In this thesis, I will mainly employ the causal version of the inferential model, rather than the structural (this should be clear from the overtly causal accounts of the various notions in Section 1). Unless otherwise noted, I use the ‘inferential model’ to refer to the causal version.

In the next section, I will argue that, as far as the epistemology of comprehension and the epistemology of testimony are concerned, it is speaker meaning we are interested in, rather than sentence meaning (or literal meaning). These are important points, since I want to draw consequences for these epistemological domains from the fact that hearers must infer speaker meanings.

### **1.6: The Epistemologies of Comprehension and Testimony Must Track Speaker Meaning**

The claim of the previous section was that in order to grasp a speaker’s meaning, one must infer it from the provided evidence and from the context, and it was hinted that this should have consequences for our epistemologies of comprehension and of testimony. But some may want to grant the claim that inference is involved in grasping speaker meanings, but then claim that as far as the epistemologies of comprehension and testimony are concerned we should be concerned with sentence meaning or literal meaning. This line of thought seems to lie behind Goldberg’s claim that “insofar as our interest is in knowledge transmission through speech, there are good reasons to construe the reliability of testimony in terms of the reliability of testimony *on its literal* (sentence meaning) *construal*” (Goldberg 2007, 98, cited in Begby forthcoming, 13). The thought is that hearers are entitled to form testimonial beliefs based on the literal meaning of the utterance employed. This already sounds implausible, given our contention in the last section that “literal meaning” often falls short of determining a full proposition – pragmatic factors must be involved in determining the proposition expressed. But even if we assume that the sentence meaning is a full proposition to be grasped, it still seems implausible that the epistemologies of comprehension and testimony should track this. If one grasps the sentence meaning, but not the speaker meaning, can one really be said to have understood the utterance? It sounds implausible to say that one has. Take an utterance of “Holland is flat” where the speaker intends to express the proposition (roughly) that



Holland has few hills and mountains. This is the speaker meaning. The sentence meaning is the proposition (roughly) that Holland is a plane surface<sup>58</sup>. If the hearer believes that the speaker said that Holland is a plane surface<sup>59</sup>, we would not say that he has understood the utterance. As we saw in the motivation for the inferential model of communication, almost all utterances contain gaps of this sort: so the claim that the epistemology of comprehension should concern itself with states the contents of which is the sentence meaning is implausible. Note that there might be interesting epistemological questions to ask about various stages of the comprehension process; e.g. what is the epistemic status of the output of semantic decoding<sup>60</sup>? But since that is not the state of comprehension, it is not a question for the epistemology of comprehension<sup>61</sup> and of testimony. One might deny that such cases of underdetermination are common, but one will still have to agree that in such cases the epistemology of understanding must track speaker meaning. But if one agrees with that, then one should agree that the epistemology of comprehension must track speaker meaning *even* in cases where speaker meaning and sentence meaning overlap. In addition, as Bach notes, “even if a speaker is being completely literal and means exactly what he says, *that* he means exactly what he says still has to be inferred” (Bach 2010, 2). The output of the comprehension process is a hypothesis about speaker meaning, not sentence meaning. The epistemology of comprehension concerns the epistemic status of the outputs of the comprehension process. So the epistemology of comprehension must track speaker meaning.

Now, if the epistemology of comprehension must track speaker meaning then the epistemology of testimony must track speaker meaning. Testimonial beliefs are based upon the state that is the output of the comprehension process (or on a belief that is based upon the output of the comprehension process) – the content of one’s testimonial belief must correspond to the embedded content of one’s state of comprehension. Now, if we have established that the epistemology of comprehension must track speaker meaning, we can conclude that the epistemology of testimony must track speaker meaning

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<sup>58</sup> Some may want to deny that there are literal meanings (See Rayo 2010 and Carston 2012). If this is true, it would lend further support to the view that the epistemology of comprehension must track speaker meaning (since on such a view, there would be no literal meaning available to serve as object of comprehensional and as basis for testimonial belief).

<sup>59</sup> By ‘what is said’ I mean the proposition expressed.

<sup>60</sup> Burge (2013, chapters 10-15) gives an account of the epistemic status of comprehension according to which it is non-inferentially justified, which may serve to account for the epistemic status of semantic decoding. Burge takes himself to have given an account of the epistemology of comprehension in the sense of giving an account of the epistemic status of the output of the comprehension process, rather than the status of just one step of it (the output of semantic decoding). But we may regard him as having given an account of the epistemic status of the output of semantic decoding. My claim, of course, is that semantic decoding provides but an input (possibly a belief that the speaker said ‘x’) to the comprehension process. A full account will specify the epistemic status of the inputs as well, so we may want to adopt Burge’s account.

<sup>61</sup> The epistemology of comprehension as we have understood it here. The epistemic status of the output of semantic decoding should be relevant to a full account of the epistemic status of the comprehension state.

Another way of bringing this home is to note that testifying involves stamping an epistemic status onto a proposition (this way of putting it is from Begby forthcoming, 14), so that it is that proposition that the hearer can, if she believes the speaker, inherit this epistemic status from. It is clear that the proposition that a speaker can stamp an epistemic status onto is the proposition that she intended to express by the utterance. So it is that proposition that the hearer must believe, if she is to acquire a belief based on (what she believes to be) the testimony of the speaker. Speaker meaning is the proposition that a speaker intends to express by an utterance (very roughly). Sentence meaning is the proposition expressed by the sentence uttered by the speaker. It is assumed that these often come apart. It is clear that the proposition relevant to the epistemology of testimony is that which the speaker intended to convey by the utterance – this is her testimony, what she is testifying to (and not “testimony *on its literal* (sentence meaning) *construal*”). Take again an utterance of “Holland is flat” where the speaker intends to express the proposition (roughly) that Holland has few hills and mountains. This is the speaker meaning. The sentence meaning is the proposition (roughly) that Holland is a plane surface. Provided he has understood the utterance (he believes that the speaker said that Holland has few hills and mountains), if he forms the belief that Holland is a plane surface, this would not be testimonial in the right sense. An obvious response here is to maintain that such examples are rare, special cases: in standard cases speaker meaning and sentence meaning are identical. But this is not an argument in favour of casting the epistemology of testimony in terms of sentence meaning, as we saw above.

One may also use anti-individualism to argue for the same conclusion. This is what Begby (forthcoming) does in his response to Goldberg’s claim that “insofar as our interest is in knowledge transmission through speech, there are good reasons to construe the reliability of testimony in terms of the reliability of testimony *on its literal* (sentence meaning) *construal*” (Goldberg 2007, 98, cited in Begby forthcoming, 13) (one may make the same point about testimonial justification). He constructs examples where a speaker believes his words to have a particular meaning, while the language ascribes to it a different meaning. The speaker will then take herself to be expressing a particular proposition, different from the one expressed by the sentence she employs. One of Begby’s particular examples involves a person who does not know the difference between an elm and a beech, who utters “There are many beautiful elm trees in Norway”. The proposition expressed by the sentence is that *there are many beautiful elm trees in Norway*. But the hearer could not gain knowledge from this instance of testimony, since the speaker is unreliable (with respect to elms and beeches). This illustrates the fact that “which proposition a speaker is in a position to stamp her epistemic authority on must reflect what she believes her words mean, not what they actually mean according to the applicable norms. It is this proposition – what she made-as-if-to-say – which a

hearer would be entitled to adopt on the basis of her testimony” (Begby forthcoming, 14). This shows that as far as testimonial knowledge is concerned, we are interested in speaker meaning – not the sentence meaning, which in this case expresses a proposition that the speaker does not have the authority to stamp her proposition; and that she fails to recognize as having been expressed. We have assumed for the sake of the argument that her utterance has a determinate sentence meaning, and we have shown that, even on that assumption, the epistemology of testimony should track speaker meaning. If one takes testimonial justification to depend on speaker reliability (cf. Lackey 2008, chapter 6), then one can make the case that this shows that an account of testimonial justification must track speaker meaning.

We have here strong cases for the view that the epistemologies of comprehension and of testimony must track speaker meaning. From now on, I shall assume that this is correct, and that the comprehension state upon which testimonial beliefs are based has as content a representation of the speaker meaning, rather than the literal meaning of the utterance. Since the main assumption of this thesis is that inferences are required to grasp speaker meanings, we should now be in a position to draw out the consequences of this for the epistemologies of comprehension and of testimony. This is the aims of chapter 2 and 3. I now turn to a summary of Chapter 1.

### **1.7: Summary**

In this chapter I have done four things. First, I introduced the understandings of the central concepts: I noted that by ‘justification’ I mean a positive epistemic status that applies to a belief when it is based on adequate grounds. I noted that I understand the basing relation as a causal relation: a belief is based on a ground if and only if it is non-deviantly caused by that ground. I noted that I take grounds to be whatever a belief can be based on: I followed Alston (2005, 81-82) in construing it as a functional notion: “‘Ground’ is a functional term; a ground for a belief is something that fulfills a certain function in the formation and/or sustenance of the belief”. I noted that among grounds might be non-propositional perceptual experiences, and also fully propositional mental states, such as beliefs. These latter I termed ‘reasons’. I noted that on my understanding a reason always requires justification in order to justify. This is not necessary the case with all grounds – experiences may confer justification on beliefs even though they are not themselves states that require justification. I noted my understanding of the distinction between inferential justification and immediate justification: the former is understood as justification deriving from the justification of other beliefs (or other states that require justification), while the latter is understood as justification deriving from states, such as perceptual experiences, that do not require justification – immediate justification is justification that does not depend on justification for other states. I

noted that this is parallel to the distinction between basic and non-basic beliefs. Basic beliefs are beliefs that are not based on other beliefs and enjoy immediate justification. Non-basic beliefs are based on other beliefs and enjoy inferential justification.

Second, I presented the epistemology of testimony and the epistemology of comprehension. I noted that the epistemology of testimony is concerned with the justification of testimonial beliefs, beliefs formed on the basis of comprehending a certain domain of others' utterances. This domain is *testimony*, comprising, roughly, any act of communication that conveys that *p* (cf. Cullison 2010, Lackey 2006 chapter 1, esp. 35-36). I noted that the central debate in the epistemology of testimony concerns the question of reductionism and anti-reductionism. I noted that there are at least three different but interconnected questions related to this: the questions of whether testimonial justification reduces to other types of justification, the questions of whether one needs positive reasons in order to have testimonial justification, and the question of whether testimony involves default justification. I noted that I would not take a stand in the debate between reductionists and anti-reductionist (my considerations might have a bearing on this debate, but I am not arguing for any of these positions), but would rather argue for *inferentialism*, the view that testimonial justification is always inferential, since a testimonial belief that *p* must be based on a belief to the effect that the speaker said that *p*. Again, this position seems to be compatible with both reductionism and anti-reductionism. I noted that inferentialism entails that testimonial beliefs cannot be basic, since they always derive their justification partly from justification for other states the subject has. Further, I noted that the epistemology of comprehension concerns the epistemic status of the output of comprehension, and it was argued that this is linked with questions about what that state is. Some take the state to be an experience-like state that does not require justification, while some take it to be a state of knowledge, belief, or another type of representation that requires justification. If one holds the latter view, one may hold that the belief (proviso) is basic in the sense that it is not based on further belief and does not depend on further beliefs for justification, but one may also hold that it is an inferential belief. I noted that I will argue for *inferentialism*, the view that the justification of the comprehension state is always inferential.

I noted that I take inferentialism in the epistemology of comprehension to support inferentialism in the epistemology of testimony, but not necessarily the other way around: there are other ways of arguing for inferentialism in the epistemology of testimony – i.e., one need not support inferentialism in the epistemology of comprehension in order to support inferentialism in the epistemology of testimony. (I noted that my discussion is about cases of seeming understanding of a seeming utterance, but that I will be talking as if I am talking only of cases of actual understanding and of actual utterances).

Third, I presented the inferential model of communication; according to which comprehension of utterances consist of making inferences to a conclusion about what the speaker said (questions about the force of the utterance, though important, are left to the side, for simplicity and to save space; my points can be made with regards to the content of the utterance). I noted that I used ‘what is said’ broadly to refer to the proposition expressed. The conclusion of the inference is a state of the hearer with a representation of what the speaker said of the form ‘The speaker said that p’. I noted that this representation may be more complex, and spelled out in more detail, but that this does not affect my later discussion to any degree. I also noted that various theories spell out the inferential model differently, e.g. about what kinds of representations form the premises of the inference – but that I do not rely on details of any specific theory. I noted that there are two general ways the model can be spelled out: one causal and one structural. I set the structural version aside, but noted that I will refer to it in later discussion. I focused on the causal version, and noted that my later arguments will reply on this version. According to this version, the inference involved in comprehension is a causal psychological process taking one from a set of input states to an output state (viz. the state of comprehension). I offered some motivations for the inferential model of communication.

Fourth, I argued that the epistemologies of testimony and comprehension must track speaker meaning rather than sentence meaning. This can be motivated in part by what motivated the inferential model when supplied with an additional premise. The observation that motivates the inferential model is that speaker meaning and sentence meaning often come apart (some may argue that they always come apart, and some deny that there is any sentence meaning). The additional premise is that it is the proposition that the speaker expresses and not the proposition that the sentence expresses that the hearer must grasp in order to comprehend the utterance (although this is implicit in the motivations for the model).

## **Chapter 2: The Justification of Comprehension States is Inferential**

The aim of this chapter is to argue that given our main assumption that the psychology of comprehension is inferential (see Chapter 1, section 1.5), the justification of comprehension states is inferential. This is the first and third premise of the Master Argument (see Introduction) combined. In section 3.1 I briefly present the argument for the claim. In section 3.2 I shall expand on the argument. In section 3.3 I offer a summary and some general remarks concerning the argument and its conclusion. Major objections to the argument will be discussed in Chapter 5.

## 2.1: The Argument

The first of the two positions to be argued for in this thesis (see Chapter 1, section 1.4) is inferentialism in the epistemology of comprehension. The claim of this position is that the justification enjoyed by comprehension states is inferential: such states depend for their justification on other states that themselves require justification (reasons in my narrow sense). I said that the brand of inferentialism in the epistemology of comprehension to be defended in this thesis follows from inferentialism about comprehension<sup>62</sup>. I offer the following argument for inferentialism in the epistemology of comprehension by way of inferentialism about comprehension:

- P1. An output doxastic state is based on a set of input doxastic states if and only if the set of input beliefs non-deviantly causes the output doxastic state.
  - P2. If an output doxastic state is based on a set of input doxastic states, then the set of input doxastic states is the reason for which the output doxastic state is held.
  - P3. If a set of input doxastic states is the reason for which an output doxastic state is held, then whether the output doxastic state is justified depends partly on whether the set of input doxastic states is justified.
  - P4. In comprehension, a set of input doxastic states non-deviantly causes an output doxastic state (the comprehension state).
  - P5. In comprehension, whether an output doxastic state is justified depends partly on whether the set of input doxastic states is justified.
  - P6. If whether an output doxastic state is justified depends partly on whether the set of input doxastic states is justified, then the output doxastic state is inferentially justified.
- C. The output doxastic state of comprehension is inferentially justified.

The argument is valid, so to refute it, one must deny one of the premises. If this argument is successful, inferentialism in the epistemology of comprehension is true. When a hearer comprehends an utterance<sup>63</sup>, the state she is in is a doxastic state that is inferentially justified. The state is based on further doxastic states that themselves require justification. Whether those further states are inferentially or non-inferentially justified is a further question, which I do not settle in this thesis, although as I hinted in Chapter 1, section 1.4, it is plausible that at least some of those states are non-inferentially justified perceptual beliefs; some may be non-inferentially justified semantic representations, and some may be inferentially justified background beliefs, e.g. about normal

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<sup>62</sup> As I noted, there are other brands of inferentialism in the epistemology of comprehension. One can deny inferentialism about comprehension (in the sense of pragmatic inference) and still endorse inferentialism in the epistemology of comprehension. One can, for instance, hold that semantic decoding is all that is needed for comprehension, but that this is an inferential process in which one's knowledge of the language enters as grounds for belief. Lepore 1997 may be an example of the latter view, although he does not explicitly deny that pragmatic inference is needed in comprehension.

<sup>63</sup> Or *seemingly* comprehends an utterance.

speech behavior, and so on. In any case, since these input states are doxastic states that function as reasons for the comprehension state through being premises in an inference to the best explanation, it is clear that the output state must be inferentially justified. In other words, comprehension is not a fundamental epistemic starting point: it is a state one can be in only after inference from other, more fundamental states. I now defend the premises of the argument for this conclusion in turn.

## 2.2: Short Elaboration

The first premise of the argument, the claim that an output doxastic state is based on a set of input doxastic states if and only if the set of input doxastic states non-deviantly causes the output doxastic state, follows from the causal account of the epistemic basing relation, which we set out in Chapter 1, section 1.1. There I assumed that a doxastic state is based on a ground if and only if that ground non-deviantly causes the belief. Grounds are understood functionally as that which doxastic states can be based on; and given our construal, doxastic states can be based on whatever can non-deviantly cause them. Obviously, other doxastic states can play this role. Premise 1 simply states our account of basing as applied to doxastic grounds, that is, reasons: belief states that assertively represent a propositional content. I should repeat here that premise 1 as stated here is stronger than is required for the argument to succeed. Premise 1 can be restated thus: an output doxastic state is based on a set of input doxastic states if the set of input doxastic states non-deviantly causes the output doxastic state, making causal non-deviance a sufficient, but not a necessary condition for basing. Thus, any argument purported to establish that causation is not necessary for basing – e.g. Lehrer’s “gypsy lawyer” case (Lehrer 1971) - leaves Premise 1 of my argument untouched. In this way, my account is obviously compatible with e.g. disjunctive causal-doxastic accounts of the basing relation: Korcz 2000, for instance, proposes the view that basing relations can be established *either* by meta-beliefs to the effect that the reason for the belief that *p* is a good reason to believe that *p* *or* by certain causal relations. To refute Premise 1, one must argue that non-deviant causation is not sufficient to establish basing. One can argue that further necessary conditions must hold. One such necessary condition often suggested is what we may call the “taking-condition”<sup>64</sup>: for the mental state to be a reason, the subject must somehow *take* the reason as supporting the belief. In a case where non-deviant causation holds between two mental states of the subject, but where a taking condition is not satisfied, there is no basing relation holding between the two states. The motivation for including such a condition is to make explicit the idea that a reason for which someone believes is not only a reason why: the subject takes into account his reasons and forms his

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<sup>64</sup> I borrow the term from Boghossian 2014. His term is employed in a discussion of inference, a discussion which is relevant to the points I make here. Note also the relevance of my rejection of the inferential internalist view of inferential justification and my discussion of Recanati’s “accessibility constraint” in Chapter 1, 1.1.

belief accordingly. “Otherwise,” as Audi says “his belief that p is *cognitively unmotivated*” (Audi 1993, 241). A strong form of such a taking condition would be the requirement that one must have a meta-belief of the sort mentioned above; to the effect that a given reason is a good reason to hold the belief. A view of this kind is suggested by Tolliver 1982, who requires that in order for basing to obtain, the subject must believe that “the truth of [the proposition that is the content of the reason state] is evidence for the truth of [the proposition that is the content of the belief state]” (Tolliver 1982, 159). Audi includes as a necessary condition for basing that one must have a *connecting belief*: a belief to the effect that “C holds between [the proposition that is the content of the reason state] and [the proposition that is the content of the belief state]”, where C is understood as a support relation (Audi 1993, 262). These meta-beliefs should be non-inferential; otherwise, a vicious regress ensues. A pressing question is whether they are; whether such states can derive from a non-inferential source. But there are further problems with the view, as I suggested in Chapter 1. As many have noted, the view is too strong: it demands that subject must be in possession of epistemic concepts in order to base a belief on a reason. But, clearly, many subjects – small children and animals - lack epistemic concepts yet base beliefs on reasons. Even subjects in possession of such concepts seem not to form beliefs involving those concepts when basing a belief on a reason. Audi (1993) attempts to solve this problem by claiming that the belief in question may be of the belief-type *de re*: the belief can be *of* a certain relation without the belief involving conceptualizations of the relation. There are further problem with the view, however. Unconscious basing is also a problem for such an account. As Harman says, a person’s

conscious reasons are those he can tell us about. To equate reasons for which he believes something with reasons he can tell us about is to assume that reasons for which he believes something are conscious reasons. This is a mistake. The reason for which people believe things are rarely conscious. People often believe things for good reasons, which give the knowledge, even though they cannot say what those reasons are. (Harman 1970, p. 844)

Even though we may not want to agree with Harman that a person’s conscious reasons are those she can tell us about, it seems clear that in many cases, subjects can be unaware of the reasons for which they believe, in which case we cannot claim that they must have a belief to the effect that the reason supports a given belief. It might be responded here that the meta-belief itself can be unconscious – the unconscious meta-belief connects the unconscious reason with the belief (if this is to work, the reason must somehow be accessible to the subject’s belief-forming processes – a kind of unconscious awareness<sup>65</sup>). One might also appeal to dispositional beliefs. But if this is allowed, and the requirement is weakened as Audi suggests, then, as I have noted, it seems that the initial motivation for requiring such a belief falls away, and that it is trivially involved in non-deviant mental causation: it seems that what is required is that the subject’s belief system

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<sup>65</sup> This must be left unclear.



“somehow reflect[s] [the proposition that is the content of the reason state]’s subjectively registered support for p” (Audi 1993, 241).

A minimal taking condition could be stated thus: The subject’s *subjective cognitive system* must take the premise to support the conclusion. This sort of “taking” seems to be trivially exhibited by the cognitive system making the inference: given certain inputs, the system generates certain outputs<sup>66</sup>. But then nothing more seems to be involved in this taking condition than is already involved in forming beliefs through certain dispositions or belief-forming habits – or forming beliefs *non-deviantly*. If so, I can accept that this weakened form of “taking” must be involved if the basing relation is to obtain<sup>67</sup>.

The second premise of the argument, the claim that if an output doxastic state is based on a set of input doxastic states, then the set of input doxastic states is *the reason for which* the output doxastic state is held, follows from our functional understanding of reasons: *reasons for which* are whatever beliefs can be based on, provided that the state that plays that role is a doxastic state that expresses a proposition that stands in a certain rationalizing relation to the proposition that is expressed by the belief which is based on the state (the rationalizing relation can be understood in terms of probability). If the content of the state on which a given belief is based fails to e.g. raise the probability of the content of the belief – fails to rationalize it - some might not want to call the state a reason for which the belief is held – it is a bad reason. However, it is not merely an explanatory reason, even though it is not a reason in the rationalizing sense. We may say that it in some sense purports to be a reason in the rationalizing sense: it is involved in guiding the belief formation. Our account treats the cases in the same way: it is the same relation that holds between a good reason for which a belief is held and a bad reason for which a belief is held. Whether the reason in question is a good reason or not is a further question<sup>68</sup>. We want to allow for bad epistemic reasons: they aim at supporting the truth of a given doxastic state content, but fail to do so.

In this premise, we have limited the input states to doxastic states, and, moreover, to proximal input doxastic states. This is because we are interested in reasons in the narrow sense. As we have noted, experience may serve as a basis for beliefs, but if so, those would not count as reasons in my narrow sense, only as grounds. The limitation also lets us avoid having to deal with problems relating to certain emotions serving as the basis for beliefs and the discussion of whether they can count as grounds. But some might worry that there are cases where the basing relation obtains between a set

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<sup>66</sup> The system exhibits a disposition to respond to certain inputs by producing certain outputs.

<sup>67</sup> Or for a process to count as inference or reasoning (see again Boghossian 2014 here, and also Wedgwood 2006, esp. 674-675).

<sup>68</sup> Since the basing relation and our account of reasons must include bad reasons, we cannot, for instance, employ Wedgwood’s 2006 solution to the causal deviance problem: he appeals to causation *in virtue of* rationalization. Obviously, we cannot use this as a general account since the reasons in question can fail to rationalize.

of input beliefs and an output belief, but where we would not want to count the basis set as the reason for which the output belief is held. Audi (1993, 261-262) mentions a few such cases: basing the belief that *p* on wishful thinking, or basing the belief that one believe that *p* on the belief that *p*.

The causation in these cases do not seem to be deviant in the same sense as the examples of deviant causal chains that we saw in Chapter 1; indeed, the causation does seem non-deviant, and hence our account says that basing is instantiated. But the causation does not seem non-deviant in the sense above. To see this, we can appeal to the weak “taking condition” above: The subject’s *cognitive system* must take the premise to support the conclusion, where this is exhibited by the system forming beliefs in accordance with certain dispositions or habits. If so, we can claim that one’s belief is not based on these states in the appropriate sense. But it might be that we want to claim that the beliefs *are* based on the states in the appropriate sense. If so, we might argue that they fail to be reasons because they do not purport to support the truth of the proposition believed in the appropriate way, and that they therefore fail to be epistemic reasons. We assumed that epistemic reasons must exhibit this (purported) truth-conduciveness. And it seems plausible to assume that the states involved in wishful thinking, for instance, do not do this. To both these responses, one might reply that e.g. the case of wishful thinking *does* exhibit the minimal taking condition, and the state *does* exhibit purported e.g. probability raising. If they do, I claim that they are reasons in the epistemic sense: they are reasons for which the person believes that *p*. But then there is no problem with such cases, and our claim that “believing *p* on the basis of believing *r* does entail that *r* is a reason for which one believes *p*” (Audi 1993, 270) is true.

Premise 3 claims that if a set of input doxastic states is the reason for which an output doxastic state is held, then whether the output doxastic state is justified depends partly on whether the set of input doxastic states is justified. That is of course not so if the inputs are non-doxastic grounds, e.g. experiential states: positive epistemic statuses do not apply to them, and they can confer justification without themselves requiring justification. In that case, whether the output belief is justified does not depend upon whether the ground is justified. But doxastic states are such that they require justification in order to transmit justification. As I have understood the term, ‘reasons’ apply only to such states<sup>69</sup>.

Some may want to argue that, in some cases, a belief can be inferential yet not depend for its justification on the beliefs on which it is based, that is, a set of input doxastic states may be the reason for which an output doxastic state is held without the justification of the output state

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<sup>69</sup> Again, many theorists employ the term ‘reasons’ to apply to experiential states that do not require justification in order to confer justification as well. This is a terminological issue. What they refer to by ‘reasons’ is the same as what I refer to by ‘grounds’.

depending on the justification of the input states. This seems to confuse *reasons for which* with *reasons why*. Purely explanatory reasons are not epistemically relevant; states can be based on them without them contributing in any way to the justification of the belief (see below); and further, explanatory reasons can play roles in causing a belief yet fail to be based on it and fail to contribute to its justification. But no one can deny that when a belief is based on a *reason for which*, that reason for which is relevant to the justification of the belief: that is the nature of such reasons – to rationalize beliefs.

Premise 4 states that in comprehension, a set of input doxastic states non-deviantly causes an output doxastic state, that is, the state of comprehension. This is because comprehension is inferential; inference as construed here is a causal process, where a set of premise-beliefs causes a conclusion-belief. We assumed that all inferences take as input doxastic states and output doxastic states<sup>70</sup>. Since we assumed that comprehension is inferential, we must assume that the output of comprehension is a doxastic state. The output of comprehension is the comprehension state. Therefore the comprehension state must be a doxastic state<sup>71</sup>. Thus, hidden in premise 4, we find an important consequence of the inferential model of communication: It provides us with a view about the *nature* of comprehension states. Non-inferentialism about the epistemology of comprehension, as presented in chapter 1, section 1.3, turns out to be a non-viable position: it is incompatible with the inferential model of communication, since it construes the output of comprehension as a non-doxastic state. Holding the view that the process that produces a certain state is inferential forces one to hold that the state thus produced is a doxastic state<sup>72</sup>. I shall return to this important point in chapter 5. Here, I wish to offer reasons we have to think that the causation involved in the production of the state of comprehension, that is, between input and output doxastic states, is non-deviant.

Again, according to the inferential model of communication, the process of comprehension is an inferential process; it takes as input certain beliefs and responds to these beliefs by producing a conclusion belief, and the inputs serve as causes for the output. Another way of expressing this is to claim that the inferential model states that comprehenders instantiate a function from a certain set of input events-kinds – that of coming to believe certain propositions, e.g. *the speaker said 'p'* – to a

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<sup>70</sup> We noted some caveats here. Let me add that some inferences may involve semantically incomplete states, that is, thoughts that are not propositional: they fail to “represent definite states of affairs” (S&W, 1995, 73). The epistemology of such states is a difficult question, since they are not propositional attitudes (beliefs) in any ordinary sense. However, such states do not seem to play the role of a premise in the pragmatic inference. It is the latter we are concerned with, so I set the problem of such states aside.

<sup>71</sup> I shall discuss this argument further in Chapter 5.

<sup>72</sup> Again, remember that I set aside cases of belief-revision. The point here is that the output cannot be a kind perceptual state or a perception-like state.

set of output event-kinds – that of coming to believe further propositions, e.g. *the speaker said p*<sup>73</sup>, where the output is generated through an inferential mechanism. The comprehension mechanism is a kind of normal psychological mechanism that we must assume humans to be in possession of if we are to explain comprehension: since a mere decoding mechanism cannot do the job of explaining how hearers grasp propositions expressed, a further specific mechanism must be introduced<sup>74</sup>. Now, this seems to be just the kind of input-output mechanism – responsible for forming and sustaining beliefs in a way that is characteristic of human beings - the causal operation of which we took to be the hallmark of non-deviant mental causation (cf. Alston 2005, 84, and Chapter 1, section 1.1 above). Remember our account of the basing relation from Chapter 1: non-deviant causation involves manifesting a cognitive trait, where cognitive trait is “a disposition or habit to form (or sustain) a doxastic attitude in certain circumstances” (Turri 2011, 391). Normal comprehension processes manifest such cognitive traits. To see this, we must connect our statement of the inferential model of communication above in terms of a function to an account of dispositions<sup>75</sup>. Such an account is given by Wedgwood: “a disposition can be specified by means of a function from one set of event-kinds (the stimulus event-kinds) to another set of event-kinds (the response event kinds)” (Wedgwood 2006, 666-667). Further,

Something has this disposition if and only if it has some intrinsic feature in virtue of which, in any normal case in which it undergoes an event of one of the stimulus event-kinds, it also undergoes an event of the kind onto which the relevant function maps that stimulus event-kind. When this disposition is manifested, then the first event e1 causes the second event e2 precisely in virtue of e1’s having the property of being an event of the relevant stimulus event-kind. (ibid., 667)

Given the statement of the comprehension mechanism as a function that responds to certain outputs of decoding processes by yielding as output a conclusion concerning what the speaker intended to convey, it seems clear that the mechanism of comprehension instantiates such dispositions. So in normal cases, particular processes of comprehension manifests such dispositions; in other words, it manifests the cognitive traits of the subject. It does so through a causal process of deriving a new belief from input beliefs. Given our understanding of non-deviant causation, this causal process involves non-deviant causation between a set of input doxastic states and an output state - it manifests the cognitive traits of the subject who makes the inference; it manifests a certain belief-forming disposition. Since this is sufficient for basing, as I have argued, we are forced to claim that the basing relation is instantiated. The output effects – the comprehension state produced by the

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<sup>73</sup> Notice again that in the input, the utterance is only mentioned, i.e. its propositional content is not represented. The input belief could be the output of parsing, but I take no stance on this.

<sup>74</sup> The mechanism may be construed as a general inferential mechanism, or a specific, dedicated module. More on this in Chapter 5.

<sup>75</sup> But note that my account does not rest on this particular account being true.

comprehension mechanism – is *based* on the input causes – the premises in the inference to the conclusion about what the speaker said. This is a crucial, since, as it will appear, it follows from this that the comprehension states is based on a reason, from which inferentialism can be derived.

Now, another way of expressing the belief-fixation involved in comprehension might be to say that the doxastic states that figure as premises in the inference in some sense *guide* the formation of the comprehension state: it is not merely an effect of them. In the case of experience, Alston understands the *guiding* in question as occurring when “the belief formation is the result of taking account of features of the experience and forming the belief in light of them, rather than just involving some subcognitive transaction” (Alston 1989, 228-229. For discussion see Korcz 2000, 540)<sup>76</sup>. We can apply this account of *guiding* to cases where the inputs to belief-formation are doxastic mental states. As I noted in my defense of Premise 1, a very weak taking condition may be involved in the inferential processing I am interested in: one’s cognitive system in some sense takes account of the inputs in the formation of the output state (as is exhibited by its making the transition (cf. Winters 1983)). Above, causal non-deviance is also understood in terms of *normal psychological processing*<sup>77</sup>. If we accept this, then claiming that a causal chain between mental states is deviant is claiming that there is something psychologically abnormal about the process in question, and making that claim about the process of comprehension is absurd<sup>78</sup>. The claim of the inferential model of communication is precisely that comprehension is a normal psychological process by which hearers grasp the propositions expressed by utterances. This is a further reason to believe that the basing relation is instantiated, even though the notion of psychological normality is left vague.

Premise 5, the claim that in comprehension, whether an output belief is justified depends partly on whether the set of input beliefs is justified, follows straightforwardly from Premises 1-4: since, as Premise 4 states, comprehension consists in a set of input doxastic states non-deviantly causing an output doxastic state, by Premise 1, comprehension establishes the basing relation between input and output. By Premise 2, since the basing relation is established between input and output, the

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<sup>76</sup> The “taking account of” locution here must not be understood to be a commitment to requiring a taking condition. In fact, Alston is opposed to requiring such a condition:

My belief that you are upset may be based on various aspects of the way you look and act without my consciously believing that these features provide adequate support for that belief; in a typical case of this sort I have no such belief simply because I am not consciously aware of which features these are; I do not consciously discriminate them. And even where I am more explicitly aware of the ground, I may not consciously believe anything at all about support relations. It is very dubious that very small children, for example, ever have such support beliefs; and yet surely a small child’s belief that the kitten is sick can be based on her belief that the kitten is not running around as usual. (Alston 1989, 228)

Of course, as I noted in earlier in this section, a defender of the doxastic account may try to weaken the taking condition: it might be dispositional, *de re* and unconscious. That seems to be admitting defeat, as I noted.

<sup>77</sup> I noted that expanding on what that amounts to is beyond the scope of this thesis.

<sup>78</sup> I am here assuming that the inferential model is correct, of course.

input is the reason for which the output is held; and thus, by Premise 3, it follows that whether the output is justified depends partly on whether the input is justified.

The sixth premise simply states an uncontroversial understanding of the notion of inferential justification. It states that if whether an output belief is justified depends partly on whether the set of input beliefs is justified, then the output belief is inferentially justified. This is sometimes called mediate justification: “When your justification to believe P comes in part from your having justification to believe other, supporting propositions, I will say that those latter propositions *mediate* your justification to believe P” (Pryor 2013, 204). Note that this concerns propositional justification; my premise concerns doxastic justification: if one believes the latter propositions and bases one’s belief that P on those beliefs, the one has inferential or mediate doxastic justification. Some may question the use of “partly” in my premise. I use it to make it clear that I do not want to be committed to the claim that the justification for an inferential belief depends *only* on the justification for the input beliefs. As I noted in my discussion of testimonial justification, a non-inferential species of justification might attach to a belief *in addition* to the justification it derives from the beliefs on which it is based (though I shall express doubts about this in Chapter 4). If that is the case in a given case, the justification for the belief should still count as inferential: the justification for a belief is only non-inferential if it does not depend *at all* on other justified beliefs of the subject. Inferential justification is just the opposite of this. Further, in the standard case of inferentially justified belief – belief based on inference<sup>79</sup> – the justification for the output belief will depend on more than the justification for the premises. It will involve the justification one has to draw the inference: this is possibly a kind of non-inferential justification.

At this stage, one might raise the following worry. One might claim that a belief can depend on other belief’s justification to be justified, but still fail to be inferentially justified. I have in mind cases where a given piece of justification can serve to *make available* justification of another sort. A belief may depend on another piece of justification without that justification attaching itself to the belief. A case here may be inference: the belief may depend on your justification to draw the inference, without that justification attaching itself to the belief: the justification attaching to the belief could entirely be a matter of the justification for the premises of the inference. Another case could be testimony. One needs justification for accepting the testimony, and one’s belief may depend upon that. But the justification for acceptance may not attach to the resulting testimonial belief. The justification may serve to make available the justification that derives from testimony

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<sup>79</sup> Why not claim that all inferentially justified beliefs are beliefs based on inference? I make reservation about this because, seemingly, the directness or indirectness of the justification does not entail the directness or indirectness of the belief (cf. Audi 1993, fn6). Of relevance here is the distinction between structural and episodic inference that I alluded to in Chapter 1. I intend to return to related questions in Chapter 5.

non-inferentially. These would be cases of dependence of justification without that justification playing a direct role in justifying the belief – it only makes other justification available<sup>80</sup>. Obviously, however, I have explicitly defined inferential justification as justification depending on other justified *beliefs*. If a belief depends for its justification on justification for other beliefs, it cannot be non-inferentially justified.

### 2.3: Conclusion and Summary

If the premises of my argument are true, it follows that the output of comprehension is a belief that itself is inferentially justified. The reasoning in this chapter should come as no surprise. All should agree that inference (of the kind I have claimed is involved in comprehension) is sufficient to establish doxastic basing relations<sup>81</sup>, where this is understood as instances of the basing relation where the relata are doxastic states.<sup>82</sup> All should agree that when such relations are established between two states, the state at one end of the relation is the reason (in my narrow sense) for which the state at the other end is held<sup>83</sup>. All should agree that if they are such reasons, the justification of the output states depends upon the justification of the input states<sup>84</sup>. For instance, let's assume that one of the input reasons is false and lacks justification. It only purports to make likely the truth of the proposition that is the content of the output doxastic state; but in fact it does not - it is a bad reason. Then the justification for the output state is partly undermined. The simple reason for this is that it depends for its justification on the justification of the input states. But this amounts to holding that the output states are inferentially justified.

To illustrate the epistemological picture of communication that we end up with, let me use some examples<sup>85</sup>. First, take a standard case of implicature comprehension:

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<sup>80</sup> I am inspired here by Faulkner 2011, 20-21. I return to the idea of making available justification in chapter 5.

<sup>81</sup> Cf. Neta 2010, 111: “inferring that q from P is sufficient for there to be a basing relation between your belief that q, on the one hand, and your reason for holding that belief (a reason that you can specify by appeal to P), on the other hand”. See also Boghossian 2014, 3: “Our question about inference, then, may be seen to be a special case of the topic that is discussed in the epistemological literature under the label the ‘basing relation’”. Even more directly, Korcz notes that “inferences are simply a kind of basing relation, so a conclusive account of the basing relation also provides an adequate theory of inference.” A worry that arises here is that my argument becomes trivial: assuming that comprehension is inferential is already assuming that it established basing relations and that the epistemology of comprehension is inferential. But the assumptions I made about comprehension are entirely *psychological*. Combining them with views about the basing relation serves to relate them to the epistemic. In this it can be argued that certain epistemic views follow from those assumptions. (Basing and believing for a reason might seem to entail inference – inference might be necessary for believing for a reason, although Neta notes that it is an uncommon view (Neta 2010, 111); and Audi notes that “inferring is not entailed by believing for a reason” (Audi 1993, 242fn6)).

<sup>82</sup> Of course, many would not agree that comprehension does involve inference in that sense. I will come back to such disputes in Chapter 4.

<sup>83</sup> I assume that the relation is asymmetric. Coherentists might want to deny this. But if the relation is understood as a causal relation, it is hard to see how it could be symmetric.

<sup>84</sup> Reliabilists want to say that it depends on the reliability of the mechanism *in addition*.

<sup>85</sup> As I have noted earlier in the thesis, since the inference involved in comprehension is inference to the best explanation, it is very hard to spell out exactly what states figure as premises: it is hard to give more than a very simple reconstruction. As Alston says, the mechanism involved in nondeductive inference must “be sensitive not only to formal properties of the argument but also to a variety of more substantive considerations – the character of the sample

(1) Violet: Who went to the dinner party? (asking a group)

John: I had already eaten.

John here intends to convey both that he had already eaten (e.g. a meal) in a certain time span prior to the dinner party and that he did not (therefore) go to the dinner party. (I'm simplifying here). Provided she understands John's utterance, Violet can form certain testimonial beliefs based on her comprehension of it: she can form the belief that John had already eaten and the belief that he did not go to the dinner party. Let's ignore what is involved in grasping the explicitly expressed proposition. How does Violet grasp John's implicitly expressed proposition? According to Grice, she employs the following data: "(1) the conventional meaning of the words used, together with the identity of any references that may be involved; (2) the Cooperative Principle and its maxims; (3) the context, linguistic or otherwise, of the utterance; (4) other items of background knowledge; and (5) the fact (or supposed fact) that all relevant items falling under the previous headings are available to both participants and both participants know or assume this to be the case." (Grice 1989, 31)<sup>86</sup>. Now, the inferential model of communication is certainly not committed to Grice's view; but it claims that some such *set of beliefs* serve as Violet's premises in figuring out what John meant.

Violet thus forms the belief that the speaker intended to convey that p. Call the premises, that is, his evidence of the hypothesis about the speaker meaning (a set of doxastic states) A. Call his hypothesis about the speaker meaning B. Now, on the causal account, in a normal comprehension situation, according to the causal account of the inferential model of communication, the doxastic state set A non-deviantly causes Violet's hypothesis B. This is what is involved in her inferring the hypothesis from the evidence. A basing relation is thus established between A and B. It follows that A is the reason for which B is held; A is a reason in the narrow sense. Then, whether her hypothesis B is justified depends upon whether the premise set A is justified. Let us assume that the propositions that are the contents of the doxastic states in A do in fact raise the probability of the propositional content of B: the reasons are, as we might say, *adequate*. If so, B is a justified doxastic state. But it is only justified because A is justified: if the appropriate relations did not hold between the propositions, the justification for B would be undermined. Note that this allows Violet's premise states to be false yet justified so that she can derive a justified conclusion. She might, for instance, mishear John's utterance, e.g. believe him to have said 'I enjoyed it', from

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if it is inductive generalization, various bits of relevant background knowledge, the field of competing explanations if it is an explanatory inference, and so on" (Alston 2005, 131). I do not attempt to spell out what is involved in this thesis, and my examples will be rough simplifications as a result.

<sup>86</sup> The Cooperative principles and maxims arguably amount to expectations that speakers have about ordinary communicative behaviour.



which she could derive false, but justified conclusions. Perhaps her comprehension state represents John as having intended to convey that he did go to the dinner party. If the evidence available to Violet supported this conclusion, her comprehension state would be justified. This is so even if she misunderstood John's utterance. This is why I noted that we are discussing *seeming comprehension*. However, in the case above, Violet infers the right conclusion: she is in a true justified comprehension state that depends for its justification on the inputs to its formation. The explanation we have given, though very simplified, is meant to represent the causal mental process that Violet undergoes in comprehending the utterance. But it is not *mere* causal explanation: it is also a rationalizing explanation<sup>87</sup> in the sense that it is relevant to how the resulting belief is justified. This is what my claim has been in this chapter. To find out whether the epistemology of comprehension is inferential, we must look at the causal explanation of comprehension. The example of Violet makes this clearer. This account of the example should be relatively uncontroversial. Most theorists agree that implicature derivation is genuinely inferential; and that it must involve inferential justification (see Burge 1993, 248-249fn21 and Recanati 2004, 17). Burge claims that "understanding based on conversational implicatures *must* be justified", and also that "construal of a sentence of content as ironic must be justified", but that "construal of a sentence as asserted can rest on an a priori entitlement" (Burge 1993, 249fn21) (recall that the difference between justification and entitlement in Burge's sense roughly corresponds to our distinction between inferential and non-inferential justification). But on the inferential model, there is no important difference between implicature comprehension and comprehension of ordinary assertion. So if understanding of conversation implicature must be justified – inferentially so – then so must ordinary comprehension.

Second, consider a case of derivation of a proposition explicitly expressed.

(2) Violet: It is raining.

Here, Violet intends to convey the proposition that it is raining in e.g. Oslo. Provided that he understands the utterance, John can acquire the testimonial belief that it is raining in Oslo. But how does he grasp the proposition Violet intends to express? Again, according to our picture of communication, he must make an inference to the best explanation, constructing a hypothesis about the speaker meaning based on the evidence available to him (that is, the beliefs that are relevant to the explanation of the utterance). These may include beliefs about the context of utterance, general beliefs about speech situations, beliefs about the utterance that Violet made, i.e. the belief that Violet said "it is raining", and so on.

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<sup>87</sup> I have assumed in this thesis all explanations in terms of epistemic reasons are causal explanations - but not vice versa, of course.

At this stage, let me briefly note an argument that I have alluded to earlier. Most theorists are committed to the view that implicature derivation involves inference (of the appropriate kind) and that the hypothesis about it must be inferentially justified. But the derivation of implicatures is undertaken by the same process that derives explicatures – it is a process known as *mutual adjustment*. So the theorists who claim that hypotheses about implicatures are inferentially justified, while hypotheses about explicatures are not, are invited to explain what the difference consists in. Their initial claim is that the processes that derive explicatures are sub-personal and therefore not epistemically relevant – but now it seems that we cannot claim this, since we have agreed that the processes involved in derivation of implicatures are epistemically relevant and we have seen that it is the very same process that derives explicatures. We have good reasons to believe that implicature derivation is epistemically relevant, and we have good reasons to believe that implicature derivation and the derivation of explicit content are performed by the same process – so it seems that we have good reason to believe that explicatures derivation is epistemically relevant. If the theorists deny mutual adjustment of implicatures and explicatures, they must explain the communicative phenomena that motivate this claim in the first place.

In this chapter I have argued that inferentialism in the epistemology of comprehension is true. Whether comprehension states are justified depends partly on whether the states that are the inputs to its formation are justified. Comprehension states cannot be experiential states that do not admit of justification, since they are the outputs of inferential processes<sup>88</sup>. With the Master Argument of the Introduction in mind, we can see that we have combined the third premise, that the psychology of comprehension is inferential, with the first premise, that if the psychology of comprehension is inferential, then the justification of comprehension states is inferential, to yield the conclusion that the justification of comprehension states is inferential. In the next chapter, we can combine this result with the second premise, that if the justification of comprehension states is inferential, then the justification of testimony-based beliefs is inferential, to yield the conclusion of the thesis, namely that the justification of testimony-based beliefs is inferential. If we can do this, inferentialism about the epistemology of testimony is established.

### **Chapter 3: The Justification of Testimonial Beliefs is Inferential**

The aim of this chapter is to argue that if, as I argued in Chapter 2, the justification of comprehension states is inferential, then, plausibly, the justification of testimonial beliefs is

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<sup>88</sup> In Chapter 4 I will defend this view against objections relating to the fact that sub-personal inference can output experiential states (as Fricker 2003 claims).

inferential too. This is the second premise of the Master Argument (see Introduction). Since the justification of comprehension states is inferential, the output of comprehension is a belief (that depends for its justification on further beliefs). It can then be argued that testimonial beliefs are based, at least partly, on the outputs of comprehension. It follows from these claims, along with a few more plausible assumptions, that the justification of testimonial beliefs is inferential. This is the conclusion of the Master Argument. If it can be established the task that is the primary aim of this thesis, namely to demonstrate the falsity of testimonial foundationalism, has been completed. In section 3.1 I briefly present the argument for the claim. In section 3.2 I expand on the argument. In section 3.3 I offer a summary and some general remarks concerning the argument and its conclusion. Major objections to the argument will be discussed in Chapter 5.

### 3.1: The Argument

The second of the two positions to be argued for in this thesis (see Chapter 1, section 1.4) is inferentialism in the epistemology of testimony. The claim of this position is that the justification enjoyed by testimonial beliefs is inferential: such beliefs depend for their justification on other states that themselves require justification (reasons in my narrow sense). It is thus a rejection of testimonial foundationalism, according to which testimonial beliefs are basic beliefs. I said that the brand of inferentialism in the epistemology of testimony to be defended in this thesis follows from inferentialism in the epistemology of comprehension, which I argued for in Chapter 2. I offer the following argument for inferentialism in the epistemology of testimony by way of inferentialism in the epistemology of comprehension:

- P1. An output testimonial belief is non-deviantly caused by a process that takes as input the output of comprehension
  - P2. The output of comprehension is a belief about what is said
  - P3. An output testimonial belief is non-deviantly caused by a process that takes as input a belief about what is said
  - P4. An output belief is based on an input belief if and only if the input belief non-deviantly causes the output belief.
  - P5. If an output belief is based on an input belief, then the input belief is a reason for which the output belief is held.
  - P6. If an input belief is a reason for which an output belief is held, then whether the output belief is justified depends partly on whether the input belief is justified.
  - P7. Whether a testimonial belief is justified depends partly on whether a belief about what is said is justified
  - P8. If whether an output belief is justified depends partly on whether the set of input beliefs is justified, then the output belief is inferentially justified.
  - P9. If whether a testimonial belief is justified depends partly on whether a belief about what is said is justified, then the testimonial belief is inferentially justified.
- C. A testimonial belief is inferentially justified.

The argument is valid, so to refute it, one must deny one of the premises. I shall now expand on the argument by giving a brief defense of the premises. Serious objections will be discussed in chapter 5.

### 3.2: Short Elaboration

Testimonial beliefs are based on comprehension states. This view is held by most authors working in the epistemology of testimony (cf. Graham 2010, Lackey 2006, Audi 2011). A *prima facie* case for this can be made by observing that when persons form beliefs through testimony, they will respond by saying that somebody told them when asked why they believe that such and such. If I form the belief that there is more cider in the cellar through your telling me so, and Suad asks why I believe that there is more cider in the cellar, I will respond that you told me so. It is natural to think that I am here offering the reason for which I believe that there is more cider in the cellar. Given that reasons are states of the subject, the only contender for this role seems to be the state of comprehension: the state in which a hearer represents it as being the case that someone has told them something. Through my processing of your utterance, I arrive at a state that represents it as being the case that you said that there is more wine in the cellar. It seems to be this state that I am identifying when I respond to the question of why I believe that there is more wine in the cellar.

That testimonial beliefs are based on comprehension also follows naturally from our analysis of the notion of a testimonial belief offered in Chapter 1 (which, as I noted, we share with most epistemologists of testimony). There is a need to distinguish testimonial beliefs from other beliefs that can arise through being confronted with an utterance. I may conclude through hearing your utterance that you have a cold or that you are nervous, but these are not testimonial beliefs: testimonial beliefs must share contents with the utterance<sup>89</sup>. A natural way to distinguish these beliefs is to claim that such beliefs are based upon one's representation of those *contents* of the utterance, which is another way of claiming that testimonial beliefs are such partly in virtue of being based upon one's state of comprehension.<sup>90</sup>

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<sup>89</sup> I note again that I am speaking loosely; it may be that there need only be a similarity of content. Let us take this to be the paradigmatic case: A hearer forms a testimonial belief that *p* based on her acceptance of the speaker's testimony that *p*. We should note the restrictions of this paradigmatic case, however. When communicating, it may in fact be rare that the content of the belief formed in the hearer is *strictly speaking* identical to the proposition testified to by the speaker, partly due to linguistic underdeterminacy (cf. Kjøl 2010). A broader definition should include testimonial beliefs that are based on, but whose contents are not necessarily identical to the proposition testified to; it must be similar enough, where this property is yet to be specified. Thus, it would look like this: A speaker tells a hearer that *p*, and the hearer forms the belief that *q*, where *q* is identical *or similar enough* to *p*.

<sup>90</sup> Some may want to claim that testimonial beliefs are based on the speaker's testimony itself, taking this to be corroborated by ordinary locutions such as hearers *taking the speaker's words* for something or forming beliefs *on the basis of testimony* (cf. Goldberg 2013, 68-71). First, it is not at all clear that such ordinary locutions capture the

Now, the traditional view of the epistemology of testimony has been that it is an inference starting with the premise that the speaker said that *p*. Goldman claims that

accepting the reports of others is really a specific pattern of inference, where inference is construed as a process that takes some beliefs as inputs and generates new beliefs as outputs. *In the testimonial case, the inputs include beliefs of the form "Person R reports X" and the outputs are beliefs of the form "X."* (Goldman 1999b, 130, emphasis added).

Different inferential accounts then specify what *extra premises* are needed in order to explain testimonial justification. As I noted in chapter 1, anti-inferentialists have responded to such accounts by claiming that ordinary testimonial recipients do not possess those extra premises, and have therefore concluded that testimony cannot be an inference. But, perhaps unknowingly, this commits them to viewing the comprehension state as a non-doxastic state: for if the comprehension state serves as basis for testimonial belief and that state is a doxastic state, we are forced to view the testimonial belief as an inferential belief. Non-inferentialists cannot accept this<sup>91</sup>. In order to hold that testimonial belief-formation is a belief-independent process, one must endorse the view that comprehension is a non-doxastic state. Van Cleve attributes to Reid the view that understanding an utterance "would include as an ingredient the belief that A said *p*" and correctly notes that it would follow from this that "believing what you hear others say would turn out to be a belief-dependent process" (Van Cleve 2006, 73, fn17). As we have understood an inference, it is a belief-dependent process in which the basing relation is instantiated. Again, since testimonial foundationalists agree that the basing relation is instantiated in the testimonial case, they seem forced to claim that it is an inference. So they have to endorse the view that the comprehension state is a non-doxastic state. Their arguments to the effect that testimonial justification is non-inferential focus on whether the hearer employs positive reasons in favour of accepting the testimony. But as we shall see, we ought to regard testimony as inferential in any case, regardless of whether the hearer employs positive reasons or not.

The reason for this should now be apparent: the conclusion of chapter 2 was that the state of comprehension is a state that is doxastic and that is itself inferentially justified. It is a belief of the

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psychology of testimonial acceptance, and, given our causal account of the basing relation, it is the latter we are interested in. Second, it is not clear that such locutions don't allow for a construal of taking someone's word for something as the hearer taking it that a speaker has said something and basing the testimonial belief on that state. Thirdly, the relata of the basing relation are psychological states: it is entirely unclear how a person's belief can be based (in the relevant sense) on an external event or state of affairs. Fourthly, Goldberg's view does not tally with the existence of justified testimonial belief from hallucinated testimony: in such cases there is no actual utterance on which to base the belief. The only plausible explanation in such cases is that the hearer bases the belief on a state that represents it as being the case that S said that *p*. There is no obvious reason why we should treat the ordinary case differently: both can give rise to justified testimonial belief.

<sup>91</sup> It might be that the claim is that the testimonial belief is formed on the basis of a doxastic state through a process that is not inference. As we saw in Chapter 2, no such processes seem available. Moreover, since they agree that the basing relation is involved, it seems that, by definition, they are committed to the view that testimonial belief fixation is an inference if they accept doxasticism (the view that comprehension states are doxastic states): inferential beliefs are understood simply as beliefs based upon further beliefs.

hearer to the effect that the speaker said that *p*, which she formed through an inference to the best explanation. She took into account contextual factors: worked out the referents of indexicals, disambiguated ambiguous words, and so on, and concluded that a certain proposition (or set of propositions) *p* was what the speaker intended to convey. The conclusion must be a belief, since it is the output of an inference<sup>92</sup>. The conclusion's justification depends upon the justification of the premises. If we now connect that with the above, we arrive at the conclusion that the testimonial belief that she then forms on the basis of the conclusion is based on a reason, in my narrow sense. Now, remember our claim that

(I) if a belief is based on a reason, then that reason is relevant to the justification of the belief in the sense that whether the belief is justified depends upon whether the reason is justified. If the belief is based on a reason, the belief is inferentially justified. If not, the belief is immediately justified.

It follows from this that testimonial beliefs are epistemically inferential – they are based on inferentially justified doxastic states.

Is it possible to deny my first premise - that an output testimonial belief is non-deviantly caused by a process that takes as input the output of comprehension - thus avoiding the view that the basing relation is instantiated? Malmgren considers this possibility, and correctly concludes that if we deny this, “we end up with a rather curious picture of the recipient's motivational psychology.” (Malmgren 2006, 226)<sup>93</sup>. If we agree that the state of comprehension is causally involved in the production of a testimonial belief, which all authors in the debate do<sup>94</sup>, the only option for the anti-inferentialist seems to be to claim that testimonial belief fixation involves *deviant causal chains* (if they are non-deviant, it follows that the comprehension state plays the role of a reason). As we noted in Chapter 2, deviant causal chains are abnormal: they are cases in which something has “gone wrong” (cf. Malmgren 2006, 229). Such examples include seeing Sylvia, then forming the belief that one sees her, and as a result dropping one's cup of tea, scalding one's legs. One then forms the belief that one's legs hurt. (Plantinga 1993, 69). Another example involves an inspector who discovers a handkerchief in a laundry basket, and forms a belief that it is there, which causes

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<sup>92</sup> Let me note again that this is a stipulation: an inferential process, as it is understood in this paper, always outputs a belief. I do not deny that on other understandings an inference may output an intention (as in the case of practical reasoning) (see Broome 2013). I also ignore cases where an inferential process results in suspension of belief, or retraction of belief. I agree with Wright, who claims that “no particular attitude to [the conclusion] proposition is implicit in inference itself, in particular not judgement of its truth” (Wright 2014, 28). The process I have in mind, that of coming to believe the conclusion of an inference, is rather a special case of inference.

<sup>93</sup> Malmgren's 2006 argument is rather similar to mine: she wants to establish that knowledge of what is said plays a crucial role in acquisition of testimonial belief. She does not, however, consider the possibility that comprehension states might be non-doxastic, as I have done. In chapter 2, I blocked that view, and this makes the role of beliefs about what is said even more plausible.

<sup>94</sup> This seems impossible to deny: one cannot acquire testimonial beliefs without in some way processing the utterance in order to make its contents available for belief. One can give different accounts of how this is done, but one cannot deny that it is done.

him to reminisce about his Aunt, and through free association, he realises that he has a bit of independent evidence for the guilt of the suspect, which causes him to believe that he is the murderer (Wedgwood 2006, 667). It is clear in these cases that the latter beliefs are not based on the former; they are not reasons for which the latter beliefs are held. There has been an unsuitable intervention between the beliefs. The suggestion that testimonial belief formation should parallel such cases, the suggestion that testimonial belief acquisition is not a normal belief formation mechanism, seems absurd<sup>95</sup>: it clearly is one of our primary sources of beliefs about the world, and involves, as pragmatics suggests, normal psychological comprehension mechanisms and, moreover, dedicated filtering mechanisms (see Sperber et al 2010). Further, an account of the deviant causal chains in question is needed, but none has been given. In the absence of such an account, it seems safe to assume that testimonial belief fixation involves a normal belief formation mechanism, and that the causation involved is non-deviant. If so, it follows that the comprehension state, which is the input to that mechanism, and figures as a non-deviant cause, is a reason upon which testimonial beliefs are based. The premise that in testimony an output testimonial belief is non-deviantly caused by a process that takes as input the output of comprehension of course concerns testimonial beliefs *in normal cases*. I do not deny that testimonial beliefs may, in special circumstances, be caused by deviant causal chains. It is the suggestion that all testimonial beliefs are caused in this way that I take issue with.<sup>96</sup>

If one wants to avoid the view that the belief that the speaker said that *p* plays the role of a reason they can accept the view that the comprehension state is a non-doxastic state to which justification does not apply. But this is not compatible with the widely accepted inferential model of communication, as I showed in Chapter 2. Another possibility was to deny that the basing relation is instantiated, but as we saw above, this yields absurd consequences. Another possibility is to claim that one need only have a disposition to believe that *S* said that *p*. This option is suggested by Audi 2002, who claims without argument that in order to acquire testimonial belief “I need not have to believe that you have attested to *p*, though to be sure I must be *disposed* to believe something to this effect” (Audi 2002, 79). But since comprehensional states are occurrent beliefs, that is, beliefs currently internally represented in one’s psychology, that position is hard to maintain: comprehension *does* always involve a belief to the effect that *S* said that *p*. We have taken it that the state of comprehension must play a causal role in causing one’s testimonial belief. A comprehension state can only play that role if it is internally

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<sup>95</sup> Though Wedgwood’s case involves a relatively normal sort of mental process – free association, to suggest that testimonial belief formation mirrors that sort of process does not seem to be a contender. In any case, the anti-inferentialist must offer an account of just what sort of process testimonial belief-formation is.

<sup>96</sup> Note also that if it is denied that the basing relation is involved, one cannot understand testimonial beliefs in terms of it, as I suggested we must. A purely causal account might be possible, but I shall not pursue this here.

represented. So the comprehension state must be internally represented (also because it is the output of an occurrent process). But the comprehension state is a belief to the effect that S said that p. So such a belief is occurrent. Hence, testimonial beliefs that p are based on an occurrent belief to the effect that the speaker said p. Testimonial beliefs are inferential (Audi agrees that this follows if I must have a belief that S said that p in order to acquire a testimonial belief that p, cf. 2003, 79). This might appear to be question-begging. However, the conclusions are drawn based on the influential inferential model of communication, and Audi denies that model at a high cost. He opts for a perceptual view, according to which I need only perceive your utterance in order to acquire a belief from it. Obviously, this encounters the difficulties similar views did in Chapter 2. A number of anti-inferentialists about testimonial belief fixation endorse the view that comprehension is a belief type state. Burge for instance, speaks of *one's entitlement to one's understanding* (see his 1993, 1999). This implies that he takes understanding to be doxastic, since he holds the view that epistemic status applies only to such states (see his 2013, 275fn29) – and he agrees that such states might “constitute propositional knowledge of the content of another’s utterance” (ibid.). It is clear that non-inferentialists who hold this must find a way to deny that it nonetheless serves as a reason in my narrow sense – for if they did, inferentialism would follow. Such further options for the anti-inferentialist I will discuss in Chapter 5<sup>97</sup>. I turn now to a short summary of this chapter.

### 3.3 Conclusion and Summary

In this chapter, I showed that testimonial foundationalism is committed to non-inferentialism about comprehension, and that it therefore is false, since the inferential model of communication is true. All agree that testimonial beliefs must be based on comprehension states, - the output of comprehension is the basis for testimonial acceptance - but because inferentialism about comprehension entails that the output of comprehension is a belief, testimonial beliefs necessarily depend for their justification on another belief, namely the belief that the speaker said that p. To put it another way: the justification of testimonial beliefs is mediated by the justification of doxastic

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<sup>97</sup> Let me note three further options here, just to set them aside. First, it possible to claim that comprehension states cannot be reasons on the basis that their contents do not raise the probability of testimonial beliefs. This option amounts to testimonial skepticism: there is no testimonial justification to explain. I set aside this view in chapter 1, and I will only note here that this view is not available to the anti-inferentialist: their claim, of course, is that there is a principle particular to testimony. If there is no such justification, the principle is superfluous. Moreover, all the authors noted as proponents of anti-inferentialism share the non-skeptical assumption. But claiming this would anyway only show that comprehension states cannot be *good reasons*. That is not to say that they cannot be reasons. Second, one may deny that comprehension is necessary for acquiring beliefs through testimony. I agree with Jack (1994, 174) that this option is absurd. Third, a way to deny that testimonial beliefs must be based on comprehension states is to equate comprehension with acceptance (Millikan 1984 seems to hold such a view). But this option still entails that testimonial beliefs are inferential if one accepts inferentialism about the epistemology of comprehension. Further, there clearly is a distinction between comprehending and testimonial belief: I can understand that you said that p without accepting p.



comprehension states. I do not claim that the justification derived from a belief about what is said is sufficient for testimonial justification. I claim that it is necessary. I claim that part of the explanation of what makes a testimonial belief justified is the justification it derives from a justified belief about what is said. I conclude that inferentialism about testimonial belief must be true: testimony cannot be a source of basic justification.

## Chapter 4: Against Anti-Reductionism

In the previous chapter, I offered an argument in support of the main thesis of this dissertation, inferentialism about the epistemology of testimony. I took it to be a refutation of testimonial foundationalism, the thesis that testimonial beliefs are basic beliefs. In the introduction, I promised to show the consequences of these points for the central debate in the epistemology of testimony, namely the reductionism/anti-reductionism debate (which I briefly presented in chapter 1). In this chapter, I will offer a brief argument to the effect that inferentialism is incompatible with anti-reductionism, and thus, given my previous points, cast doubt on anti-reductionism itself.

First, let me briefly recap the reductionism/anti-reductionism debate (see Chapter 1, section 1.2). *Anti-reductionism* is the view that testimonial justification is non-inferential: one has a default non-inferential justification to believe what one is told, so long as one has no reason not to. So the resulting belief enjoys non-inferential justification. This is because the justification one has for a testimonial belief derives from a non-doxastic ground and from a foundationalist epistemic principle, on a par with epistemic principles for perception, introspection, memory, and so on, rather than from other justified beliefs the speaker has. *Reductionism*, on the other hand, is the view that the justification for a given testimonial belief must derive from reasons on which the testimonial belief must be based; other things one justifiably believes. On this view, testimonial justification is inferential. There is no epistemic principle particular to testimony: we can account for testimonial justification by showing how it *reduces* to other kinds of justification for which we have given epistemic principles. Justification that a testimonial belief may possess is never of a distinctively testimonial kind.

Now, it is clear that inferentialism in the epistemology of testimony is incompatible with the view that testimonial justification can be explained without reference to reasons *at all*, a view we might call *pure anti-reductionism* – for that view is committed to testimonial foundationalism. There are other forms of anti-reductionism, however, according to which reasons play some role in the explanation of testimonial justification, but further elements need to be introduced – a principle specific to testimony: one such view would be dualism as described above. What I want to suggest

now, however, is that all forms of anti-reductionism are committed to testimonial foundationalism: for, as we will see, an epistemic principle specific to testimony could only be introduced if testimonial belief fixation were non-doxastic; that is, if testimonial beliefs were based on a non-doxastic state. The reason for this is that foundational epistemic principles do not govern inferences in particular domains: they only govern the movement from non-doxastic states produced by sources of belief to doxastic states<sup>98</sup>. So if there is an epistemic principle specific to testimony, testimony cannot be a kind of inference: it must be a movement from a non-doxastic state to a testimonial belief (again, an inference is, by definition, a transition from a doxastic state to a doxastic state). So any view that introduces an epistemic principle specific to testimony is committed to testimonial foundationalism. But as I have argued in chapters 2 and 3, testimonial foundationalism is false. So anti-reductionism is false. Typical arguments against anti-reductionism often focus on its tendency to lower the bar for testimonial justification too much: it seems to legitimize gullibility. Here I offer an argument against anti-reductionism based on views about the nature of the comprehension state. It shows that there is no epistemic principle particular to testimony.

The epistemology of testimony is part of a general epistemology. It is a widely shared view that a general epistemology offers a set of principles that together explain which beliefs are justified and which beliefs are not. These principles are normative, in that they permit certain belief forming practices: those that fulfill the conditions generate justified beliefs whilst those that do not generate unjustified ones. Now of course, considerations of parsimony play an important role in offering such a set of principles as an explanation of justification. One must be careful not to introduce principles that fail to do epistemic work, and in particular, as Pollock and Cruz note, we must avoid proposing “ad hoc lists of epistemic rules whose only defense is that they seem to be required for the justifiedness of those beliefs we antecedently regard as justified” (Pollock and Cruz, 1999, 123). A central concern as regards testimony, then, is whether a testimonial principle can do any epistemic work, whether it is strictly needed in a general epistemology. I will now cast doubt on such a view. First, we must note that foundational epistemic principles govern the formation of basic beliefs, that is, beliefs that are based on non-doxastic states. They permit the movement from a non-doxastic state to a doxastic state. An example of such a principle would be

If S’s perceptual system represents an object x as F (where F is a perceptible property), and this causes or sustains in the normal way S’s belief of x that it is F, then that confers justification on S’s belief that x is F. (Graham 2005, 95)

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<sup>98</sup> Of course, there are epistemic principles governing inference, but these are transmission principles, i.e. they do not concern the generation of justification, and are therefore not suitable for the anti-reductionist: they would require a specific principle that generates testimonial warrant (but this is not to claim that testimony is a generative source (though some authors claim this, see for instance Lackey 2008).) I am speaking here of foundational principles.

There would be one such foundational principle for every basic source of beliefs, in addition to, as mentioned above, transmission principles for inference (but these are not foundational: non-foundational principles are general in that they do not concern particular basic sources of beliefs: they concern the movement from belief to belief through inference.) For anti-reductionism to succeed, there must be a need for such a foundational epistemic principle concerning testimony. An example of such a principle would be

If a subject S (seemingly) comprehends a (seeming) presentation-as-true by a (seeming) speaker that P, and if that causes or sustains in the normal way S's belief that P, then that confers justification on S's belief that P (ibid.)

The comprehension state here must be regarded as a non-doxastic state. If it is not, then the principle above seems redundant: the principle would permit a specific kind of inference, but there already are general inference rules that account for all inferences: it seems more parsimonious to read the transition in question as an instance of a general type of inference. Fumerton draws an analogy with what he calls litmus paper reasoning:

It's harmless enough to suggest that there is an epistemic rule permitting an inference from the litmus paper turning red in the solution to the conclusion that the solution is acidic. (Fumerton 2005, 81)

But he notes at once that

It is surely more perspicuous to suggest that there is no rule of inference *at all* sanctioning an inference from the proposition that the paper is red to the conclusion that the solution is acidic. (ibid.)

He suggests instead that we will find that the inference in question is an instance of a general kind once we supply missing premises: "the representation of the reasoning in question is enthymematic" (ibid.).

Now, as Fumerton also suggests, a similar point holds for testimonial belief formation. Even though we represent the inference as a movement directly from a belief about what the speaker said to belief in what was said, we will notice that it is an instance of a general reasoning pattern once we supply premises (remember that we are assuming for the moment that the comprehension state is a belief). Once that much is conceded, the need for a testimonial principle in a general epistemology ceases to exist.

At this stage, anti-reductionists would deny that there are such hidden premises - a typical case used to cast doubt on reductionism is the case of a person visiting a foreign city who asks a complete stranger for directions to the nearest church. Such cases are set up so that the information the tourist has regarding the speaker is seemingly non-existent. The person seemingly lacks the materials – the sufficient premises – to draw a justification-providing inference. Nonetheless, the person is justified in her belief about where the church is located. If that is so, it seems that we cannot reduce that

justification to the reasons she has available. It follows that there must be an epistemic principle particular to testimony that can explain the justification.

Now, the anti-reductionist takes such cases to be representative of most of our testimonial exchanges. Such cases are not convincing, however. First, as many authors have noted, most testimonial contexts do not seem to be informationally impoverished (see Faulkner 2002, Kenyon 2013). Second, it is not clear that much information is needed in order for the inference to be justification-providing: as Schiffer (2003) notes, all that is needed seems to be very general beliefs about human interaction and belief-acquisition.

He introduces the case of Abe, who “comes to believe that it’s snowing because he comes to believe that Sally believes she knows that it’s snowing, and, using his general knowledge about the sorts of ways one is likely to acquire such a belief, Abe believes that it’s very unlikely that Sally would have her belief if it weren’t snowing” (Schiffer 2003, 2315). Abe’s inference to the best explanation relies only on general premises, in addition to the belief that Sally said that it is snowing, and this seems sufficient to explain Abe’s justification to believe that it is snowing.

What this suggests is that testimonial belief formation can instantiate *a general type of inference*: there is no need for an inference principle particular to testimony. I will not take a stance here as to what type of inference it is. It can, as Hume suggested, be an inductive inference, where one concludes from one’s observation of the general reliability of testimony (or of the reliability of a particular kind of testimony) to the truth of this particular instance of testimony. Another possibility is an inference to the best explanation: the truth of the testimony is the best explanation of the utterance. What these approaches have in common is that they tally with the idea that a belief about what is said plays a crucial role in the formation of testimonial beliefs.

Second, what if we assume that the comprehension state in the principle above is taken to be non-doxastic? This would save anti-reductionism, since this would preserve the idea that the principle in question is a foundational principle that confers warrant on testimonial beliefs, and that testimony is a basic source of beliefs. The problem with this solution is, of course, that the comprehension state is a doxastic state. This is what I have argued for in chapter 2. There I drew the first epistemic consequence of the inferential model of communication, which was that that the epistemology of comprehension must be *inferential*. This amounts to the claim that comprehension states are inferentially justified, and that they are doxastic states, since they are outputs of an inferential process: comprehension states are based on reasons, which are input doxastic states of the subject that function to rationally support a given output doxastic state.

Now, we have already showed that if the comprehension state is a doxastic state, the need for a principle particular to testimony seems to vanish: testimonial belief fixation can be accounted for by showing that it is an instance of a general pattern of inference. What this suggests is that we can fully account for testimonial justification without introducing a further principle particular to it. But this is another way of claiming that testimonial justification reduces to other forms of justification. It follows that anti-reductionism is false, since anti-reductionism precisely is the claim that testimonial justification cannot be fully explained by reference to other epistemic principles. It seems, then, that inferentialism about testimonial justification favours a form of reductionism. This has a further virtue in that it preserves the view that testimonial justification is a unitary category (cf. McMyler 2013, 50) – it is an instance of inferential justification. It would also explain why anti-reductionists often deny the doxastic view, for agreeing with the doxastic view, it seems, commits one to reductionism.<sup>99</sup>

Now, anti-reductionism is also sometimes characterized as the view that in order for one to acquire testimonial justification, one does not need positive reasons – it is enough simply to understand the utterance. If one holds that understanding is belief, though, this thought does not seem plausible. If understanding is belief the question of testimonial justification becomes a question concerning “under what conditions ... it [is] rational for H to believe that p, given that H has evidence to the effect that S asserted that p” (Goldberg forthcoming, 8). It does not seem rational to move directly from the belief that S said that p to p<sup>100</sup> – further premises must be supplied in order to derive p from the former premise, i.e. further reasons must enter the picture. So inferentialists seem to be committed to the view that positive reasons are needed<sup>101</sup>, hence at odds with anti-reductionism under the second interpretation.

## Chapter 5: Inferentialism Defended

The aim of this chapter is to respond to certain objections to the account of comprehension and testimonial belief fixation that I offered in Chapter 3 and Chapter 4. The central claims of those chapters were these: (i) the comprehension process is an epistemically inferential process, (ii) the

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<sup>99</sup> There are further reasons to believe that inferentialism might be incompatible with anti-reductionism. Anti-reductionism is often motivated by comparing the fixation of testimonial beliefs with the fixation of perceptual beliefs (cf. Gelfert 2014, chs. 5 and 7). This route is obviously not available if one endorses inferentialism. Perceptual processes are on most views non-inferential in a way that comprehension is not (in my strong sense (that is to so, they do not involve propositional belief states as inputs)), hence the parallel collapses.

<sup>100</sup> Though note that if one does hold that it would be, the transition would still be an epistemically inferential one, it would just not involve positive reasons. It would hence be compatible with anti-reductionism on the present interpretation.

<sup>101</sup> Though these reasons need not be those anti-reductionists claim to be absent – beliefs regarding the competence and sincerity of the speaker.

state of comprehension is a doxastic state that is inferentially justified, and (iii) the testimonial belief fixation process is an epistemically inferential process. There are several considerations present in the literature that are designed to undermine such claims, some of which we have touched on already. Here I will take each objection in turn and offer responses on behalf of my account. We will see that none of the objections hold up under scrutiny. I begin in section 5.1 by considering objections to (i), in section 5.2 I consider objections to (ii) and in section 5.3 I discuss objections to (iii).

## 5.1: Inferentialism about the epistemology of comprehension defended

In chapter 2 I argued that the process of comprehension is an epistemically inferential process, that is, the process is one in which a set of beliefs is taken as input and the output is based on the inputs, such that the justification of the output depends for its justification on the justification of the input. The inputs are premises in an inference to the best explanation of an utterance, and the output is a conclusion about what the speaker intended to convey. I focus here on five different objections to such a view: the first is the objection that such a view is incompatible with the phenomenology of speech comprehension, the second is the objection that such a view is incompatible with the inaccessibility of speech comprehension, the third is the objection that such a view is incompatible with the modularity of speech comprehension, the fourth is the objection that such a view is incompatible with facts about concept possession and mental sophistication, and the last is the objection that the inferential model of communication on which my view is based is false.

### 5.1.1

I start with the least serious objection. This is the objection that the claim that comprehension is inferential does not tally with ordinary experience: comprehension has a certain phenomenology that is held to be incompatible with the view that it is inferential. When one listens to speech in a language one is competent with, one seems to *take in* the meaning in a way that is *immediate*: one is not aware of making inferences about what the speaker could have meant. One seems simply to *hear* the meaning. The objection then moves on to claim that this phenomenal immediacy entails that the processes underlying speech comprehension are non-inferential. It is this last move I take issue with. My response will be that the *cognitive spontaneity*<sup>102</sup> of a state entails nothing about its etiology, in particular, it does not entail that it is non-inferential. This is, I take it, uncontroversial – we have reasons to believe that cognitively spontaneous states can be both psychologically and epistemically inferential.

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<sup>102</sup> 'Cognitively spontaneous' is a term from BonJour 1985. It is used to denote beliefs that are not the product of a conscious process of inferring a belief from another; such a belief "simply occurs to me, "strikes me," in a manner which is both involuntary and quite coercive" (BonJour 1985, 117).

The objection can be found in many authors: Burge claims that “understanding an interlocutor’s speech, on ordinary topics, seems no less immediate than understanding one’s own speech in thinking out loud”, and claims that the view that comprehension is inferential “has no intuitive plausibility for ordinary understanding” (Burge 1999, 354). He holds that the immediacy of understanding counts in favour of it being non-inferential. Fricker claims that “it is a fact of phenomenology that we enjoy [...] understanding-experiences, quasi-perceptions of meaning”, and goes on to argue that such understanding-experiences cannot be the product of a process of inference (in the sense of a transition among beliefs). About testimonial beliefs Audi claims that this is “the kind of belief that arises naturally, non-inferentially, and usually unselfconsciously in response to what someone says to us”, and this claim is supported by the following illustration: “I ask you the time; you tell me it is nine o’clock; and straightaway I believe this on the basis of your saying it” (Audi 2006, 26), where the immediacy of the process is taken to support its non-inferentiality: “Typically, we simply understand what is said and believe it” (ibid., 27). Schiffer claims that “the information process that takes us from an auditory perception of the utterance of a sentence to a belief about what was said in that utterance does not appear to be any sort of *inference*. It seems much more like the sort of non-inferential processing at work when one has a visual experience and on that basis believes that there is a red ball in front of one” (Schiffer 2006, 283-284). He seems to consider this to be a motivation to reject an inferentialist view. The objection goes back to Reid, who, according to Van Cleve held that “when we hear others attest to some fact that *p*, we automatically believe *p*. There is no drawing of inferences or weighing of reasons – we simply believe *p*”, from which it is said to follow that testimonial beliefs are “psychologically immediate, not based on reasons” (Van Cleve 2006, 66). I will return to this objection in section 3, but here I will simply note that it also concludes implicitly, from phenomenology, that comprehension is non-inferential as well.

What these authors seem to have in mind is the view that comprehension and testimonial belief fixation on the whole is not what is sometimes termed *episodically inferential*: the beliefs do not arise “from a process or episode of inferring, of explicitly drawing a conclusion from something one believes” (Audi 2011, 180). As we saw in Chapter 1, however, my brand of inferentialism is entirely compatible with the view that comprehension is not episodically inferential in this sense. Inferentialism is incompatible with the view that comprehension is not structurally inferential: that it does not involve “a belief *for* a reason, *based on* another belief” that arises through “an automatic

process of belief formation” (ibid.)<sup>103</sup>. But none of the above considerations establish that comprehension is not structurally inferential. I readily agree that comprehension is automatic, unconscious, spontaneous and immediate. That is simply not incompatible with holding that it is inferential, and the above arguments do not provide any reasons to believe this. Inferentialism does not entail that the phenomenology of speech comprehension is mediate. I am, of course, not committed to the view that comprehension requires effortful, conscious reflective reasoning. This much is clear from Chapter 1. Most inferential belief formation goes on without our consciously reflecting on it: only in rare cases do we stop and slowly and deliberately reason our way to a new belief. Most of our inferences are spontaneous. These inferences are nonetheless epistemically relevant. The beliefs that are the results of such inferences are inferentially justified. Consider forming the belief that there has been a person in the room on the basis of the belief that there are footprints on the floor. This inference might be drawn without any conscious deliberation – the resulting belief might appear completely spontaneous. One need not even consciously register the footprints, for instance if one’s attention is directed at the location where one’s missing Meissen figure stood. However, if the belief that there are footprints on the floor is unjustified – if it was not based on an adequate ground, let’s say – then the belief that someone has been in the room is unjustified. This shows that a belief might be phenomenologically immediate yet be inferentially justified. In fact, most of our beliefs are formed this way: a large category of our beliefs have an immediate phenomenology, yet are epistemically inferential.

Further, two reasoners might be identical with respect to their phenomenology, yet differ epistemically due to a difference in epistemic status of one of their premises. Consider a twin case in which the twins have identical phenomenology. Let us then assume that they both perform an inference. Assume that both perform the inference above: the belief that there has been someone in the room is formed on the basis of the belief that there are footprints on the floor. Now, one of the twins is completely justified in holding the first belief, while the second is unjustified, due to a set of defeaters that are not present in the first twin. Both form the beliefs that there has been someone in the room completely spontaneously. In this case, it seems clear that the epistemic status of the conclusion beliefs differ. But the difference cannot be due to phenomenology, since they are identical with respect to that. So justification does not supervene only on what is phenomenologically accessible to the agent.

A further case to show that spontaneous beliefs might still be inferential is provided by Lyons (2009). He looks at Jane and instantly forms the belief that his sibling is in front of him. Further, for

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<sup>103</sup> Though I noted that in my terminology a belief that is structurally inferential must arise on the basis of an inference. Audi wishes to reserve the terms ‘inference’ and ‘reasoning’ for processes that are episodically inferential (Audi 2011, 180). I have not done so. I insist that there is a swift inference in the structural case.



him *sibling* is not a perceptual kind, so the belief is not the output of perception: he needs to infer that there is a sibling in front of him on the basis of the belief that Jane is in front of him and that Jane is his sibling. Next, “[s]uppose, for example, that I am at a large gathering of my extended family, and I need to find one of my siblings. Because I’m on the lookout for one of my siblings, when I see Jane, what pops into my head is something like ‘there’s one of my siblings now’. Though I certainly wouldn’t consciously rehash my belief that Jane is one of my siblings, this belief is clearly part of my evidence for my belief that one of my siblings is here.” (Lyons 2009, 132-33). The belief that there is a sibling in front of him is clearly cognitively spontaneous: he is not aware that he has inferred this from two previous beliefs – the belief is just as spontaneous as the belief that Jane is in front of him. But the former is inferential, while the latter is not. Lyons concludes that there is

no good principled reason to hold that basing relations are always transparent to introspection [...] and the examples currently under investigation strongly suggest that some basing does not involve consciously introspectible inferential moves. Suppose that the psychological account I have suggested is correct, that this particular belief that there’s a sib in front of me, though relatively spontaneous, is causally dependent on the outputs of semantic memory (in this case, the belief that Jane is one of my siblings) and face recognition (the belief that Jane is here). If, in this particular instance, I am unjustified in believing that Jane is nearby, or that Jane is one of my siblings, then I am similarly unjustified in believing that one of my siblings is nearby. The only natural explanation for this is that the sibling belief was based on the Jane beliefs, despite the fact that I didn’t have any introspective awareness of explicitly inferring the one from the others. “ (Lyons 2009, 132)

This tallies well with my conclusions above. Lyons notes further that “I may draw this inference so habitually and rapidly that it does not seem like an inference to me, but it is an inference nevertheless, and the resulting belief is nonbasic. “ (Lyons 2009, 131). Let me now apply this to comprehension, so that the commitments of inferentialism are made clear.

Take the case of encountering John uttering ‘these banks are enormous’<sup>104</sup>. Now, a belief about the utterance as a physical token with certain linguistic properties is the output of perceiving and parsing the utterance: The belief that John said ‘these banks are enormous’. We may suppose that this belief is non-inferential: it does not arise on the basis of other beliefs<sup>105</sup>. But this belief is not yet a belief about what is said – it is not an assignment of a representational content and mode to John’s utterance. What happens further is that such a belief about what is said arises through complex processing on the basis of the first non-inferential belief (and whatever further input beliefs the science would assign in order to explain the conclusion representation). The belief that is output is the belief that John said *that* the banks in front of us are enormous (where banks are taken to be financial institution buildings). This conclusion is drawn spontaneously and automatically (and may even be performed by a dedicated mechanism, that is, be modular, as we will see below). But it is clear that the justification one has for the resulting belief about what is said

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<sup>104</sup> Please note that my following simple explication involves an extreme simplification of what is involved in comprehension.

<sup>105</sup> Though my account is compatible with this belief being inferential. I take no stand on this point.

rests on the justification one has to believe the input beliefs. The output belief is cognitively spontaneous yet epistemically inferential.

As with perception, it is hard to know precisely where to draw the line between what is present in a non-inferentially generated belief (that might be based on an experience) and what is inferred spontaneously and automatically from these beliefs. In Lyons' sibling case, it might not be entirely clear that the belief that there is a sibling in front of him is based on a further belief rather than non-inferentially generated. And as Fricker asks "does one literally see that it is going to rain shortly in perceiving a threatening grey sky and immediately forming the belief that it will rain shortly?" (Fricker 2003, 328 fn6). It seems clear that Fricker agrees that one cannot answer such questions entirely by introspection. Indeed, had she believed that an inferential belief wears its etiology on its sleeve, the question would not seem apt. For in that case, inferential processes and beliefs would have a certain phenomenology that would distinguish them from non-inferential processes and beliefs. But Audi, Fricker and Burge all seem to agree, as they should, that they do not. And in the lack of a principled distinction between inferentiality and non-inferentiality along such lines, and in fact, on the whole, the objections pose no problem for inferentialism. As long as no good case is offered for the view that cognitively spontaneous or immediate mental states are necessarily non-inferential, inferentialism remains a viable position. A belief arises on the basis of another belief automatically and spontaneously, so that the phenomenology of the reasoner is immediate in the sense that it does not appear to the reasoner that she is making an inference.

An objection here, though, might be that certain inferences one makes do not provide inferential justification, and that comprehension is a case in point. A further condition on reason-providing inference might be that the premises provide in phenomenology an explanation of the conclusion from the point of view of the reasoner. This might be argued to be what is lacking in the comprehension case. If that is so, the processes in question are inferential (even in the sense I have set out: that of a transition amongst beliefs, instantiating a basing relation exhibiting a habit of the reasoner) yet the justification for a belief thereby acquired is not epistemically supported by the premises. Such a view would, of course, be at odds with the considerations above (and of course, I have argued that so long as a doxastic basing relation is involved, the justification of the resulting belief will depend on the justification on the basis belief). But Burge offers a consideration in favour of there being such cases. He notes that "some of what we call 'inductive inference' may not be genuine, reason-giving inference, even when it is warranted" (Burge 2013, 493) – and that this can be the case even with transitions amongst propositional attitudes. These are cases where the following, according to him, minimal condition on reason-giving inference is not satisfied: "the premises and the transition-rules must go some way toward providing an (object-level) explanation

for the individual inferrer of why the conclusion is credible” (ibid.)<sup>106</sup>. Is this a plausible condition on reason-giving inference? Read in one way, it is clearly too strong. This would be the requirement that the subject must believe of each of the premises that it supports the conclusion. Many subjects have beliefs that depend for their justification on other beliefs without having the means to explicate their inferential transitions. And further, in many ordinary cases, reasoners have inferential beliefs that they are unable to fully explain. Take the case of an extremely long episode of reasoning: here it would be very hard for the reasoner to have in mind all her reasons, much less somehow to be representing an explanatory support relation between the reasons and the conclusion. Phenomenologically, the conclusion could appear as a spontaneous “epiphany”, to speak colloquially. But this would not render the conclusion non-inferentially justified. Whether it is justified still depends upon the reasons that were operative in bringing the reasoner to the conclusion (of course, the basing relation would have to be instantiated). If the requirement is read in the strong way, inferential beliefs would be very rare indeed – and many intuitively inferential beliefs would be rendered non-inferential: the belief that the fall of the Roman Empire was caused partly by the military’s having too much influence on the government, the belief that cockroaches predate dinosaurs by at least 100 million years, the belief that Earth’s circumference at the equator is 24,901.55 miles, beliefs that are arrived at through complex reasoning to which it is doubtful the reasoners have complete access<sup>107</sup> - but also more mundane beliefs like the belief that Australia won the U.S. Open, arrived at through hearing that primeval cries are coming from the local Aussie beerhouse<sup>108</sup>. Arguing that these beliefs are part of the foundation of the structure of justification, rather in the superstructure, is very controversial. Noticing such worries, Burge notes that “one need not have a complete or fully satisfying explanation of the conclusion’s being made credible by the premises, even at a non-metarepresentational-, object-level of thinking” (ibid.). All that is required is that the premises provide “some sort of rationalizing, explanatory support for the conclusion”. It is not entirely clear what sort of support (or presumably purported support) this amounts to. And if the condition is weakened, it is not clear that comprehension does not satisfy it. It is not implausible that in fact the inferences involved in understanding do provide such explanations *in phenomenology* of the acceptability of the conclusion for the individual. I claim that the conclusion about the speaker meaning does not appear completely unmotivated for the individual. The resulting beliefs are not ‘epistemologically ungrounded blind hunches’. Neither are they entirely

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<sup>106</sup> This is perhaps most plausibly read as a dispositional requirement rather than a phenomenological one. I return to this below.

<sup>107</sup> Of course, on some accounts, such beliefs could be acquired non-inferentially through testimony. I have in mind the non-testimonial cases.

<sup>108</sup> Case from Malmgren 2006. As she notes “The average epistemic agent can certainly not be expected to be able to articulate the factors that explain why she judged that p (say, that Australia won the U.S. Open) rather than that q (say, that the U.K. won and the local Aussie beerhouse has been taken over by Brits)” (Malmgren 2006, 211).

like perceptual beliefs: take the case of encountering the utterance “The sound is broken”. I immediately infer that the speaker intends to convey that the sound device of the telephone in front of me is broken, yet I am aware that this is not what she strictly speaking said (I am speaking colloquially here). Of course, this might be a special case. Showing that such awareness is present in the typical case is hard. But at least it goes some way toward challenging the view that the phenomenology of comprehension in general lacks awareness of premises. Note that this is a point about phenomenal access – I return to similar points about dispositional access below.

In this section I have argued that the phenomenology of comprehension does not count against inferentialism about comprehension, neither psychological nor epistemological. My inferentialism agrees that the phenomenology of comprehension is typically immediate and spontaneous, but nothing follows from this regarding the debate about whether comprehension is inferential or non-inferential. A belief may be spontaneous yet inferentially justified. This much I take to be uncontroversial. In fact, it might appear obvious to some<sup>109</sup>. Still, having shown that inferentialism is entirely compatible with the immediacy of comprehension is a feather in the inferentialist’s cap, for the immediacy of comprehension is one of the prime prima facie considerations in favour of perceptualism or any kind of non-inferentialist view. I believe, however, that underlying the consideration I have discussed, that due to its phenomenological immediacy comprehension cannot be inferential, might be a view according to which comprehension states cannot be *beliefs* at all, but should rather be understood on the model of perceptual states. The authors expressing the consideration just discussed have articulated no such argument, but I will discuss such an argument in section 2, and show it to be inadequate. I now go on to discuss a strategy the non-inferentialist might employ: the claim that comprehension is dispositionally inaccessible, and that this fact renders the processes involved epistemically irrelevant or non-inferential.

### 5.1.2

A second objection strengthens the first one by claiming that inferentialism is incompatible with the claim that speech comprehension is inaccessible in a weaker sense to the subject. This objection agrees that processes and states that fail to be phenomenally consciously accessible at the time of occurrence can still be epistemically relevant. What it claims instead is that there is a weaker accessibility requirement, and that speech comprehension fails to satisfy it. The accessibility requirement requires that the states be dispositionally accessible. For something to be a reason, they claim, it must be possible for the state to be made conscious. The claim is then that comprehension

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<sup>109</sup> Even Audi, a proponent of the objection under consideration, notes: "To be sure, we must allow 'unconscious' reasons, quite as we must allow unconscious evidential grounds" (Audi, 1993, 348).

lacks this property. The transitions and states one relies on in comprehension are such that they cannot be made conscious: they are not dispositionally accessible. My response here will be that it is not clear that comprehension does not satisfy the condition: at least some of the premises relied on can be made conscious should the question arise. But I will remain neutral on whether they can in fact be accessed in this way, and argue that they still are epistemically relevant. There are reasons to believe that there can be reasons that are in-principle inaccessible to the subject, the justification of which is relevant to whether beliefs based on them are justified.

Most authors agree that states that are not phenomenologically accessible can still function as reasons for the individual. That this is uncontroversial we established in the previous section. However, a prominent thought in general epistemology is that for a state to function as a reason, and for it to be a premise in a reason-giving inference, it must be capable of being made conscious. This line of thought is expressed by Peacocke:

In the basic, personal-level case in which something is done for a reason, whether it be in thought or bodily action, the reason-giving state must be either conscious, or it could become conscious for the thinker. A reason-giving state need not be actually conscious. If you decide to fly to Paris, you may call one airline rather than another. There need not be any conscious state, one contributing to what it's like for you, just before or after your decision, which is the reason-giving state which rationally explains your calling that airline. But if this was a minimally rational action, your reason could become conscious if the question arose. In a case in which no reason becomes conscious, when the question arises, and the thinker consequently cannot explain why he chose to call that airline, we have a much-diminished sense of the rationality of the action. [...] The requirement that the reason-giving state is one which is or could become conscious is intimately related to our conception of an agent as someone with a point of view, and whose rational actions make sense to the subject himself [...] given that point of view. For an alleged reason-giving state which could not even become conscious, this condition would not be met. Any action produced by it would not make sense even to the subject himself. (Peacocke 1998, 96)

This is essentially the point that Burge made above: reasons must provide explanations from *the subject's point of view*. A more plausible version of the argument of section 5.1.1 holds that the states involved in comprehension do not satisfy this condition. This might have been the underlying claim of the formulations of the argument from inaccessibility in section 5.1.1, though they did not bear it out. Recanati argues explicitly that the states involved in grasping contents explicitly expressed do not satisfy such a weaker accessibility condition, and concludes that they therefore cannot be inferential (Recanati 2002, 2004). Burge notes that “[w]e seem normally to understand content in a way whose unconscious details (inferential or otherwise) are not accessible via ordinary reflection.” (Burge 1993, 477), implying that those details cannot serve as reasons. The requirements here are of accessibility to reflection, not to phenomenology. The notion of accessibility is not a clear one, and I shall not attempt to make it precise here (importantly, few of the authors making the objection under discussion operate with a precise notion of accessibility). I shall assume that we have a working conception. I now turn to ways of responding to the objection.

Here is one reason to believe that the condition is not a condition we should set on states relevant to epistemic assessment. We have agreed that there can be unconscious beliefs, and that we can be mistaken about what we believe (and the basis for our beliefs). I might, unbeknownst to me, have the belief that Paderewski has musical talent. Now, suppose that this belief can inferentially interact with my further beliefs, conscious and unconscious. It can influence my belief formation. I can see no reason to deny that it can. In fact, our example of the unknowing sexist (in Chapter 1) is a case in which unconscious mental states influence actions and inferences. Let's say that I form the belief that Paderewski can play the pianoforte based on the belief above and the belief that everyone who has musical talent can play the pianoforte. Suppose then that the premise belief is undercut: I have no justification to believe that Paderewski has musical talent. It seems quite clear to me that the justification for the conclusion would be undercut too. I would not be justified in believing that Paderewski can play the pianoforte. I see no other explanation for this than that the conclusion depends for its justification on the premise beliefs. The conclusion belief is inferentially justified, even if the beliefs involved are unconscious. So if the premise beliefs of a pragmatic inference are unconscious beliefs of that variety, it is allowed that they can be epistemically relevant. Note that these unconscious beliefs are not like e.g. the representational states involved in knowledge of language: they are inferentially integrated. Let's imagine another twin case: assume that the beliefs that the twins have access to are identical for them. Let us then assume that one of the twins has an unjustified in-principle inaccessible belief on which he bases a given belief, and the other twin as a justified in-principle inaccessible belief on which he bases his belief (they are identical apart from their epistemic status)<sup>110</sup>. The verdict here should be that the conclusion belief of the twin with the justified premise belief is justified, while the conclusion belief of twin with the unjustified premise belief is unjustified. Things will not *seem* different to the two twins. Further, the explanation available to the twins will not differ. Yet it seems clear that they differ epistemically.

Now a more serious response. We are now operating with a much weaker notion of availability than we did in section 5.1.1. But if it is understood in this loose sense, the non-inferentialist runs the risk of making it plausible that comprehension processes are accessible in the same way. As Malmgren notes in a critique of Burge, "if we water down the notion this much, it is no longer clear that the [hearer] does not have reflective access to the details of the process that takes her from perceptions of words to a belief about content." (Malmgren 2006, 211)<sup>111</sup>. This is echoed by Carston, who notes that "on the less demanding construal of conscious availability [...] it looks as if it is a property of

<sup>110</sup> Of course, the ordinary notion of justification might not apply to these in-principle inaccessible states. But the result seems to be a difference in epistemic standing of the two twins. So the lesser notion seems to be a part of the picture.

<sup>111</sup> Malmgren leaves open whether BWS belong to the category of inferentially or non-inferentially justified belief (cf. Malmgren 2006, 212 fn 32). My point is precisely that, if inferentialism is true, BWS must have an inferential epistemology.

pragmatic processes quite generally” (and not just implicature derivation, which we have noted many times is uncontroversially inferential) (Carston 2003). Second, and relatedly, we may claim with Carston (2007) that in many cases of understanding we actually have such access, as exemplified in the following exchange, where the hearer seems to be aware of the literal meaning of A’s statement: “A: Juliet is the sun. B: Oh right, full of hydrogen and helium, is she?”. We may say that it seems that the hearer draws an inference to a conclusion about the proposition expressed (a belief about what is said) based partly on a belief about the literal meaning, and is aware of both beliefs and the inferential connection between them<sup>112</sup>. As Carston notes

surely most hearers are *able* to perform the reflective activity of ‘making explicit’ their tacit reference fixing process: if asked how he knows that the speaker was referring to Tony Blair (rather than Cherie Blair or John Prescott), the addressee could respond that he knows this because the speaker used the word “he” while pointing at (or demonstrating in some other ostensive way) Tony Blair. He thereby shows that his referential hypothesis has a rational basis and that he is consciously aware of both the hypothesis itself, the evidence on which it is based and the relation (inferential?) between them, and that, on reflection, he is able to make the connection explicit. (Carston 2003).

The claim of the non-inferentialist would be that no such ability is *required*. But that is not the question at stake here. The objection currently under consideration relies on the assumption that the premises of the pragmatic inferences are not available even in this weaker sense; that “an (object-level) explanation for the individual inferrer of why the conclusion is credible” (Burge 2013, 493) is lacking in the comprehension cases. And it is quite clear that it is not. Indeed, not all the details of the process are available, but that is *not* the claim. Boghossian takes it to be a desideratum for any account of inference that we are “hard pressed to say *exactly* why, or in what respects, we take these premises to justify the conclusion” (Boghossian 2014, 12). So it seems that we have good reasons for thinking that the premises are accessible in a way that satisfies the weak dispositional accessibility requirement on reasons: There is a sense in which these are part of a subject’s perspective<sup>113</sup>. If so, there is no reason to believe that the premises of a pragmatic inference cannot play the role of reasons. Hence, the view that they can serve as the justifying basis for beliefs about what is said is preserved in the face of the second objection. Even though subjects do not have a full grasp of all of the unconscious details of the process that generates beliefs about what is said, they have, at least when the question arises, some access to the considerations that were taken into account. And it is a fact of psychology that the considerations are taken into account: The beliefs are occurrent, in the sense of being active in processing. In this sense they are presumably explicitly

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<sup>112</sup> In fact, this is Recanati’s criterion for a process to be available. The immediate view may respond that the fact that we may reconstruct it as such does not show that the process is a consciously available (inferential) process. But then the same could be said of the above examples of mediately justified perceptual beliefs. An account of the difference must be given. It may be claimed that in many cases of understanding there is no availability – it is not necessarily conscious; but the same might be demonstrated to be true of the type of belief exemplified.

<sup>113</sup> This seems to be widely accepted, though not uncontroversial; see Carston 2002, Bezuidenhout 1998 and Stanley 2005.

represented in one's working memory. But occurrent beliefs can be unconscious<sup>114</sup>. So whether, from the point of view of epistemology, she needs to take these into account, beside the point. Since she *does take them into account*, the states are epistemically relevant. Specifically, their epistemic status, such as whether they are justified or unjustified, matters when assessing the resulting conclusion for justification. The question of what is *required* seems out of place if it is already established that one *does* (necessarily) take certain reasons into account.

A point to note in light of this is that if non-inferentialists claim that the processes are inaccessible even in the weaker sense, they have already committed themselves to a psychological claim about speech comprehension. It is not merely a phenomenological or a priori claim. I'll be the first to admit that we do not have a clear understanding of the relations between inference and consciousness: I agree with Kenyon that they are both "fuzzy categories" (Kenyon 2013, 79). As I noted in Chapter 1, I take it to be a largely empirical matter whether and in what sense the processes are consciously available, and what the nature of the processes are. But I shall now grant the non-inferentialist premise that the processes are in-principle inaccessible to the subject, but argue that even if this assumption is made, non-inferentialism still does not follow.

But the mediate view can respond to this by appeal to the notion of a justifying rational structure (cf. Burge 2013, 4; 490) that I introduced in Chapter 1. According to this idea, a given belief may be mediated by reasons even though the subject has no access to those reasons; even though those reasons are sub-personal or even modular<sup>115</sup>. What is crucial is that the individual has "an operative (undefeated) reason for the attitude in the individual's psychology" (ibid., 490 fn 2, emphasis in original). Of course, a reason must be said to be in the individual's psychology even though the individual is not the locus of the cognition. An inferentialist about psychology may either claim that pragmatic inference is personal or sub-personal; either way, a structure of premises is ascribed to the person's psychology in order to explain how the psychology arrived at the conclusion about the proposition expressed. Those premises take the form of fully formed propositional doxastic states. A structure of this sort seems to be what Burge has in mind when he says that a belief may be supported by "a rational structure in one's psychology that functions to support and explain the relevant attitude" (ibid.) (Burge is not talking about pragmatic inference; that his notion applies here

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<sup>114</sup> Note that some authors use 'occurrent' to refer to *conscious* beliefs. For a debate on this terminology, see Audi 1994, Manfredi 1993, Lycan 1986.

<sup>115</sup> I shall return to modularity below. But here, note that this notion seems to render Burge's own version of non-inferentialism incompatible with inferentialism about the psychology of comprehension: his reason for claiming that understanding involves entitlement (roughly equivalent to non-inferential justification) is that "individuals need not be capable of giving reasons that justify their comprehension of others' utterances." (Burge 2013, 274-5). But there no longer is such a condition for something to be an instance of reason-based belief or inferential justification (note that the inferentialist view as presented never employed such a condition), so to preserve non-inferentialism, he would have to deny that there is an in-principle unconscious inference involved in comprehension.



is my suggestion). It seems plausible that the presence of a justification in the weaker sense for beliefs about what is said (BWS) is enough to vindicate the inferentialist view. There is no requirement that a BWS must have justification in the stronger sense of justification from consciously accessible reasons. The only claim is that the BWS derive their justification from reasons. This is a functional and structural way of understanding justification: it emphasizes psychological structure instead of availability to consciousness. It might be objected that this is not the ordinary notion of justification. If that is so, at least inferentialism is established with respect to *this* notion of justification. However, I do think that the ordinary notion of justification is sensitive to states that are in-principle inaccessible to the subject.

If the reasons are not, even in principle, accessible to the subject, how do they function as reasons? They play an explanatory role and supporting role. A necessary condition for playing these roles is that the reasons stand in a causal relationship to the belief that is being assessed. That a belief is non-inferentially justified means that it has justification that does not depend upon the subject having an operative reason for the belief: and for Burge, an operative reason “is one that is the mode-content of a psychological state or occurrence that has that content and that figures causally in forming or sustaining the attitude whose mode-content the reason is a reason for” (Burge 2013, 490 fn 2, emphasis mine)<sup>116</sup>. A reason may play this role even if it is sub-personal or modular. There may be numerous propositions that can serve to explain and support a given belief; however, a reason is not going to be the reason for which the belief is held unless the reason is the content of a belief that stands in a causal relation to the belief that is being justified. The claim of the inferentialist is precisely that a BWS is based on, in the sense of being caused by, the beliefs that figure as premises in an inference to the best explanation of the utterance. She takes this to imply that the BWS is inferentially justified. The non-inferentialist view wants to avoid this; however, it does not seem that claiming that the processes are sub-personal works, given the notion of a rationalizing structure that functions to epistemically support beliefs even though it is sub-personal. This will become clearer in the next section.

### 5.1.3

I now offer a response to the objection (related to, but stronger than the objection above) that the processing involved in comprehension is *sub-personal*, and hence not epistemically relevant. The assumption is that for something to be epistemically relevant, it must be attributable to the

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<sup>116</sup> It seems that Burge is endorsing a causal account of the epistemic basing relation, and it seems that he notices, I have argued in Chapter 1, the short path from this view to the view that the basing relation can hold even though the reason is sub-personal or modular.

individual. Here we can question the idea that the process is sub-personal (though some proponents of the inferential model seem to think that it is (see Carston 2002, Carston 2005), but I will argue that even if we grant that it is sub-personal, it does not follow that the process is epistemically irrelevant. I will discuss this in terms of modularity, since modularity entails sub-personality. Whether the processing is modular is an open question, but I want to suggest that even if it is modular, the beliefs that are taken as input can serve as reasons.

In the previous section I pointed out that the claim that pragmatic processing is inaccessible to consciousness, both when access is construed as phenomenal access and when it is construed as dispositional access, is controversial. But I argued that even if the claim is true, it does not follow that the processes are epistemically irrelevant. In this section and the next I assume that the processes are inaccessible. I will argue that they nonetheless are epistemically relevant. In this section I argue that even if the processes are *modular*, the inputs still serve as epistemic reasons for the outputs. Modular processes are widely regarded as being inaccessible<sup>117</sup>. Further, modularity is commonly taken to entail sub-personality. So if the argument of this section is successful, it can be concluded that both inaccessible and sub-personal processes can be epistemically relevant. That is, belief-fixation processes over which the subject or the subject's central system has no control or access can nonetheless function as reason-providing. This is so, however, only if the processes take doxastic states as input. At first sight, these claims might appear inconsistent since modular processes are often construed as processes that do not take doxastic states as input. But we shall see that this latter claim is controversial, and that if there is any plausibility to the claim that pragmatic inference is modular, the claim must be false, given the assumption that the input to pragmatic inference must be doxastic. This latter claim might be disputed, but if it is, the result seems to be a non-inferential model, or an inferential model only in a stretched sense of the term. Before we proceed, it could be useful to note again that pragmatic inference is assumed to be a specific kind of transition among *beliefs* or *doxastic states*. Some might think that I have begged the question against modular accounts, since mental representations that occur inside a module might be argued to be subdoxastic states: beliefs are states that are stored in general memory, that are inferentially integrated with one's general belief system and states to which the agent has some degree of access. These properties might be thought not to apply to modular states. This, like the worry above, rests on a specific view about what a module is, and what modular states are. Once an updated picture of modular processes is in place, however, the worry seems to disappear.

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<sup>117</sup> Cf. Burge 2013, 28 and Pettit 2010, 24. But it might be claimed that processes can be accessible even if modular. Modularity is a claim about the locus of processing, not its accessibility. A key attribute of modules is informational encapsulation – they cannot access information stored outside its own database and inputs. It does not follow from this that they are inaccessible. I shall return to this problem.

Several authors raise the objection that comprehension is modular and therefore not epistemically relevant. Burge claims that

the processes underlying domestic understanding of others are fast, unconscious, difficult to articulate, nearly automatic, almost modular [...]. Inferences relevant to epistemology are acts in the central cognitive system, though often unconscious ones. They are acts by the individual, not processes in subsystems. The transformations present in [this case] normally do not involve acts by individuals. (Burge 1999, 354)<sup>118</sup>

And Pettit claims that

If linguistic competence is deployed in speech comprehension by modular subsystems, then the competence thus employed is not warrant apt [...]. [It] is not warrant apt, because the modules that deploy it are not properly evaluated as warranted or unwarranted in what they do – only persons are properly subject to such evaluation (Pettit 2010, 27-28)

Only states that are warrant apt can enter as inferential justifying grounds for beliefs, so it would follow that the linguistic competence is inferentially epistemically irrelevant, contrary to the inferentialist view.

The first thing to note about these objections is that they seem to rely on a Fodorian view of modules, which I will briefly set out below. Pettit claims, for instance, that modules “are supposed to be informationally encapsulated” (ibid. 27), a central characteristic of Fodor-modules. I think that showing that a process is Fodor-modular is showing the process to be epistemically irrelevant. That is only because the Fodor-modular processes cannot take beliefs as input. But Burge gives us no reason to believe that the processes are Fodor-modular – his claim seem largely to be made from the armchair, and Pettit’s reasons only support the claim that syntactic and semantic decoding are Fodor-modular, a claim which I and other proponents of the inferentialist<sup>119</sup> view have agreed with. At this stage, we have no good reasons to believe that pragmatic processing is Fodor-modular; in fact, we have reasons to believe that it is not, since pragmatic inference is sensitive to a wide range of information. Second, both stress the point that only processes *of the individual* are epistemically relevant. It seems that the claim that the processes are modular is not required to make this point: as Pettit notes, “the crucial psychological assumption was just that the linguistic competence is deployed by some component of the locus of cognitive activity that is distinct from the person” (ibid. 28). This is a weaker claim, and it might be more plausible. However, I shall argue the conclusion does not follow even on the stronger assumption.

It is a largely empirical question whether the processes involved in comprehension are modular. Recently proponents of the inferential model of communication have turned towards a modular

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<sup>118</sup> I remind the reader that Burge seems now to reject this argument. I shall return to his reasons for this.

<sup>119</sup> I should note that Pettit’s target is a Radical Interpretation type view, which holds that even syntactic and semantic decoding is inferential. I think some of the resistance to an inferential view stems from confusing such an extreme view with a more relaxed pragmatic picture (see for example Burge 1999). I will return to this confusion later in this chapter, when I discuss comparisons between an inferentialism about comprehension with sense-data inferential views about perception, brought forth to undermine the inferentialism about comprehension. I think such analogies are apt if the target is the extreme view, but they do not undermine the relaxed picture.

view of the mind, according to which there might be a dedicated pragmatics module making pragmatic inferences (see Sperber and Wilson 2002, Wilson 2005). As we will see, however, such a module could not be a Fodor-module. It would be a module of a quite different sort, which I will briefly set out below. And I think showing that a process is modular in this sense does not amount to showing the process to be epistemically irrelevant. I want to remain neutral on whether the processing *is* modular, but as I said in the first paragraph of this section, I will argue that even if one assumes that the processing is modular, Burge's and Pettit's conclusions do not follow: the processes can be epistemically relevant.

In early cognitive pragmatics, e.g. Sperber and Wilson 1995, 1987, pragmatic inference was construed as a central process of belief-fixation. In the philosophy of language, e.g. Grice 1989, it was likewise construed as an exercise in general reasoning capacities (though no explicit standpoint was made regarding processing). At this stage, theorists endorsed roughly a classical Fodorian picture of the mind, where the mind is construed as consisting of on the one hand several specialized input systems, that is, modules that operate in specific domains and are encapsulated – they are sensitive only to a limited amount of information, and on the other, a central system that integrates information from the modules and has access to all information stored in memory. Belief fixation is regarded as a central process, and perceptual processes are regarded as the prime example of a modular process.

When proponents of the inferential model claim that there might be a pragmatics module, they do not have in mind this picture of the mind, however. The pragmatics module cannot have several of the properties that a Fodor-module has. For instance, the inferential model assumes that the input to pragmatic inference is belief, that is, conceptual. But a Fodor-module cannot take conceptual contents as input. Some might want to dispute the former claim, but I cannot do so here, nor will I defend it. I think it is an essential component of a proper inferential model of communication. Rather, underlying the claim is a view that holds that there are more modules than Fodor thought, and these modules are not Fodor-modules: they are conceptual modules that are responsive to a wide range of information. Unlike Fodorian modules, they take conceptual information both as input and as output: their processing is propositional and inferential<sup>120</sup>.

One might want to respond to this by saying that the processing involved in comprehension precisely does not involve beliefs of the subject but beliefs represented in the database of a module. That might be the case for some modules. However, the beliefs involved in pragmatic inference must be inferentially integrated with the rest of the subject's beliefs: for in many cases,

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<sup>120</sup> Burge (2010) notes that there might be opposition to the idea that propositional inference can be modular. But that seems to be so only if one assumes a Fodorian picture. Burge himself notes that “it is far from obvious that all *propositional* inference is non-modular” (2010, 49).

encyclopedic knowledge will enter into the inference. The module must have access to the database of the person. It employs beliefs tokened in working memory. If that is so, the fact that the processing is modular does nothing to show that the states cannot serve as reasons for beliefs, and hence that the justification of the outputs of the processing is non-inferential. If the beliefs are not beliefs of the subject, but beliefs of the module (though I am not sure how much sense it makes to ascribe beliefs to modules), this would not follow, since I agree with Pettit and Burge that only beliefs of the subject are assessable for justification.<sup>121</sup>

The conceptual modules may share a number of properties with Fodor-modules, however: they may be fast, operate mandatorily, be domain specific, have a relatively fixed neural architecture and show characteristic breakdown patterns. An important feature of the inferential model has been preserved, however: the inputs to the processes are still propositional doxastic states from central memory. It does not follow from the fact that the processes are modular that the states are modular or sub-personal. We have no good cognitive scientific understanding of what it is to have a belief, or of what it is for a person to have a belief. But mental representations stored in general memory or tokened in working memory seem to be good candidates. The beliefs are tokened in the subject's central systems, and then taken as input to a modular process, and as a result, a new belief is tokened and stored in memory.

We might, however, think that the modules exploit regularities in their domains – in the case of a pragmatic module the domain of ostensive communication - and employ principles relating to that domain that are not beliefs of the agent. Such principles might be thought not to satisfy the condition of inferential integration. I think this is true, as do Sperber and Wilson (e.g. 2002). But such principles are typically not employed as premises in the pragmatic inference: they are wired into the system.<sup>122</sup> The module can have a database that it uses to process its inputs. But the inputs need not come from the database: the inputs come from general working memory. It is of course the inputs that we are interested in.

My claim is that just because a process is modular does not entail that the states that are involved in the processing are modular or sub-personal. Take for instance a Gaze Direction Device that infers what people are seeing from the direction of their gaze. The input to such a module is a belief about

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<sup>121</sup> Though there might be a sense in which we can assess a module epistemically; but that would not be that with which we are interested here, which is personal justification.

<sup>122</sup> Some might want to argue that Gricean maxims play the role of premises in a pragmatic inference. But such maxims seem to be inferentially integrated: they seem to be formalizations of general beliefs or expectations speaker-hearers have about conversational behaviour, and not like e.g. "the phonological or syntactic representations of the language module (Carston 2002, 8)

the direction of the person's gaze<sup>123</sup>. This is not a modular or sub-personal state. The output of such a module is a belief about what the person is seeing. This is not a modular or sub-personal state. Nonetheless, the processing is modular. This shows that the fact that a process is modular does not entail that the states that figure in the process are modular. One way to express this would be to say that a module *employs* the beliefs of the wider organism, beliefs that are stored in general working memory. The person does not employ the beliefs. But they are beliefs *of* the person. We do not have a well-defined criterion for saying when a belief is the belief of a person rather than of a module or sub-system. It seems, however, that beliefs stored in a general working memory should be attributed to the person, or at least to the person's general cognitive system. I take it that most of the beliefs discussed by epistemologists can be attributed to the person in this sense. Now, it would be odd to claim that the belief produced by the Gaze Direction Device is non-inferentially justified. Remember that all that I am trying to show is that these beliefs are inferentially justified. I think we should hold that even if these beliefs are outputs of modules, they can be inferentially justified, that is, depend for their justification on the justification of other beliefs.

To take another example, suppose I have a module for *modus ponens*<sup>124</sup>. Let us suppose the module takes as input the belief that *p* and the belief that *if p then q*. It then outputs the belief that *q*. Here, we might want to say that the module *based* the belief that *q* on the belief that *p* and the belief that *if p then q*. The processing is modular. It is clear that whether the belief that *q* is justified still depends on whether the input beliefs were justified. The beliefs in question are beliefs of the subject. Further, in the case of a theory of mind module, the input likewise seem to be beliefs of the subject about observed behaviour, tokened in working memory, that the module employs to draw inferences about other people's mental states. As Wilson notes "[t]he result should be an intuitive ability to draw valid conclusions in the domain of intentional behaviour, but without any reflective awareness of how these conclusions are drawn" (Wilson 2005, 1136). But the conclusions would still be based on inferences, for the input to the mechanism would be beliefs of the organism.

Another reason to believe that the states involved are not modular states is that pragmatic inference seems to be subject to belief revision. We can question whether the person really intended to refer to that person rather than this, in a way that we cannot question the 'conclusions' of syntactic and

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<sup>123</sup> Evidence suggests that the input to such a module might be a visual non-doxastic state. If so, this case cannot help illustrate my point. But there are clearer cases below.

<sup>124</sup> This is an imagined case. There might not actually *be* modus ponens modules. It clearly seems possible, however, and I use the case merely to motivate the view that modules can take as input personal-level states and output further personal-level states that will have an epistemic dependence relation.

semantic processing<sup>125</sup>. And we can deploy our competence in understanding utterances. The reasons for this seems to be that the states that are involved are propositional states that are inferentially integrated with one's other beliefs. The modules under consideration take propositional beliefs as inputs, rather than subdoxastic states<sup>126</sup>. Stich (1979) notes an important property of beliefs that subdoxastic states seem to lack: they are inferentially integrated<sup>127</sup>. This seems to be a property of pragmatic inference. The chief inspiration for this thesis, Bezuidenhout, claims that "the sort of pragmatic inferential processing involved in verbal communication is non-modular and that it is inferentially integrated with ordinary consciously accessible background and encyclopedic knowledge" (1998, 280). I agree with her contention that the states that are involved in pragmatic inference are "inferentially integrated with ordinary consciously accessible background and encyclopedic knowledge": I think this is evidenced by the fact that general encyclopedic beliefs can influence pragmatic inference: they can play the role of premises in the inference. This shows that a pragmatics module cannot be encapsulated, and it shows that the states involved in the processes are beliefs rather than subdoxastic states. It seems that Bezuidenhout assumes a Fodorian construal of modules, thus her claim that the processes are non-modular. But encapsulation is not a property of modules in the wider sense that has been briefly presented here. It is the non-encapsulation of these modules that allows them to perform processes that are reason-providing. For if they can take as input general beliefs in working memory, there is a question of them being justified, and thus a question of the transmission of that justification from the inputs to the outputs.

Again, the information involved in the pragmatic inference is in the form of beliefs that can be attributed to the person. They may be unconscious and tacit, but they are beliefs, represented in the subject's cognitive system. This differentiates the states from those involved in perception. The states involved in perception, assumptions made by the perceptual system, are information states that are not to be counted as beliefs. As Lyons notes "the sorts of assumptions made by the perceptual systems are often not going to be the contents of any of the agent's beliefs, and if not, then these assumptions cannot be part of the agent's evidence" (Lyons 2009, 56). The representations involved in pragmatic inference are, however, part of the agent's evidence. They are beliefs, possibly dispositional, that the agent has. They might be *employed* by certain modules in modular reasoning. As we have seen, it is possible that certain modules take as input beliefs of the

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<sup>125</sup> That is to say, we can question it, but must do so pragmatically. We cannot *deploy* our syntactic and semantic competencies in the same way.

<sup>126</sup> I believe that a characteristic of such sub-doxastic states is that they play a role through being stored in the subsystems, and are largely innate. They represent information about rules, assumptions about distance, etc., that are longstanding. They do not play a role, I think, in cognition through being acquired on the spot and stored in general memory. Many of the states that are relevant to the interpretation process are acquired on the spot, however, and as I have noted, are stored in general working memory (but perhaps that is the case with perception also).

<sup>127</sup> He also claims that accessibility is another property of belief that distinguishes them from subdoxastic states. I have given reasons to doubt that accessibility is a criterion for being a belief, and will not discuss this further here.

larger organism (contrary to Fodor's 1983 notion of a module – but compatible with Sperber's notion (cf. 1994)), and output beliefs of the larger organism. Here, the output beliefs won't be justified unless the input beliefs are. Since they are beliefs of the larger organism, it makes sense to ask whether they are justified. What does not make sense is to ask whether the module was justified in making the transition, or whether the person was justified in making the transition, since not the person but the module performed it. But it does make sense to say that the justification of the output beliefs depends for their justification of the input beliefs even if the person did not make the inference. If pragmatic inference is modular, then the assumptions the module employs as premises will presumably be assumptions of the larger organism, as will the output belief. Indeed an important aspect of language comprehension is that *any information* can be relevant to it (this is what makes some people skeptical of pragmatic theory). Often, pragmatic inference draws on ordinary encyclopedic knowledge. Hence I assume that if the inference is modular, the module must have access to such knowledge, i.e. to beliefs of the organism. The module might have a small set of assumptions that it always employs. However, ordinary knowledge must always be involved. And once this is involved, it makes sense to ask about the justification of the premises and of the conclusion as depending, at least partly, on this justification.

As I noted, it is true that a module cannot be assessed for justification: and Pettit is certainly right to claim that a module does not have reasons (2010, 25-26). However, since it can take as input beliefs of the larger organism, there *is* a question of whether its inputs are justified, and as a result, the outputs depend for their justification on whether the inputs are justified. In this way, the inputs to the process can function as reasons for the individual, even though the individual does not employ them. The beliefs are, at least, inferentially justified. I should note again here that the notion of justification I am interested in is stronger than that of epistemic blamelessness. I can agree that beliefs that are formed through modular processes are epistemically blameless. A belief formed by an automatic inference process might be epistemically blameless even if based on unjustified premises. I am not to blame for the automatic operation of my cognitive systems. However, there is a good sense in which the belief is unjustified. This is the sense of justification I am interested in.

Underlying my conclusion here was that propositional inference is a process that involves only beliefs: it is a relation among doxastic states. It follows from this that anything that is not a doxastic state cannot stand in an inferential relation to anything (cf. Stich 1976, 507). The inferential model assumes that the states involved in comprehension are propositional and doxastic. Otherwise the model would not be inferential: it would fail to distinguish the processing involved in comprehension from that involved in e.g. perception. But this is precisely the distinction that the inferential model stresses. If the inputs to a process are non-doxastic states, we cannot claim that



that process is an inferential process. The same should hold true for outputs: if the outputs fail to be doxastic, we cannot claim that the process is inferential (I remind the reader of the role this point played in Chapter 2). Now, there might be a kind of intuitive naturalness in calling perceptual processes ‘inferential’ (see Harman 1970). What matters here, however, is the substantive issue of whether these two phenomena are similar in important respects (cf. Stich 1979). I think they are not, since properly inferential processes are propositional. As the term ‘inference’ is ordinarily used in philosophy it refers to a process that involves only belief<sup>128</sup>. It is this kind of process that the inferential model claims must be involved in comprehension. As Stich notes “what we need to know are the similarities and differences between the process leading from sensory stimulation to belief, and the process (ordinarily called “inference”) leading from pre-existing beliefs to the formation of new beliefs” (Stich 1979, 514). I have claimed that there is an important difference in that the former are non-propositional. Another option, however, is to follow Harman (1970, 175) in preserving the principle that inference is a transition amongst beliefs, but where one greatly expands what it is to be a belief, so that even proximal stimuli can count as beliefs. I think Stich successfully undermines such a view. But I do not agree with Stich that we should give up the principle that inference is a transition amongst beliefs (Stich 1979, 514): for then we again have no way of capturing the crucial difference between perceptual and pragmatic processing<sup>129</sup>. I think there is a difference in type of process. Had it not been for the vast context-sensitivity of language, the analogue would perhaps hold. That is, if the claim had been that one must infer at a semantic level, the analogue would hold. That is not the claim, however. The presence of *pragmatic* inference is what makes the psychology of comprehension inferential in a sense that perception is not, and in a sense that implies that it also is epistemically inferential. The key difference, as I have noted, is that the processing involves fully propositional mental states – it is an inference in the more narrow use of the term, albeit spontaneous, unconscious and fast. I agree with Burge (and Fodor (1983)) that semantic decoding is modular: it is performed by an encapsulated, specialized mechanism. It involves a non-inferential processing that nonetheless relies on background information and assumptions. It does not require reasons or evidence: their outputs are entitled, that is, not backed up by reasons or justification (in the inferential sense). As Burge says, “the warrant for the understanding does not rest on an unconscious transition from a reason or evidence” (Burge 1999, 346). Semantic decoding is not an inferential process. It is a decoding process. But again, it only serves as an input to pragmatic inference. In a given case, the output of the comprehension of constant aspects of words, that is, semantic decoding, might be both veridical and entitled, yet I will

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<sup>128</sup> Again, my claims are about theoretical inference.

<sup>129</sup> Stich believes that there are some states that represent the information that p, i.e. that are propositional, but that are not beliefs, because they fail to be accessible and are not inferentially integrated with one’s overall beliefs. I have noted that the states involved in pragmatic inference seem to be inferentially integrated.

not count as having comprehended the utterance. Semantic decoding does not yield the proposition expressed by an utterance, and it is this proposition that one needs to grasp in order to understand the utterance<sup>130</sup>. In order to grasp it, one must employ the output of semantic decoding and *infer* the speaker meaning, i.e. the proposition expressed. As Sperber and Wilson note, if comprehension is understood this way “linguistic decoding is not so much a part of the comprehension process as something that precedes the real work of understanding, something that merely provides an input to the main part of the comprehension process” (Sperber and Wilson 1995, 177). This must be reflected in the epistemology of pragmatic inference, and I have shown how.

So long as the process involves a rational structure of beliefs - this one finds in all explanation in terms of ordinary beliefs – there are reasons for belief. As Glüer puts it: “there are reasons as soon as there are correct reasons explanations” (Glüer 2009, 318). Propositional attitudes have their home in ordinary explanation, but they also have a home in scientific psychological explanation. A state cannot be a reason for which a belief is held unless it figures causally in the formation or sustainment of that belief. And only reasons for which a belief is held are relevant to whether that belief is evidentially justified.<sup>131</sup> We must look to the scientific explanation of the given belief, and see whether that explanation involves belief. It does not matter whether the beliefs in question are modular or not. This point seems to be the one underlying Burge’s recent endorsement of the possibility of modular reasons<sup>132</sup>. Moreover, it tallies well with Lyons’ claim that “[t]he basing relation is a naturalistically specifiable relation, a psychological relation, a species of causal relation; thus there is no reason it couldn’t apply to modules as well as persons” (Lyons 2009, 139). Beliefs about what is said are *based* on other beliefs of the agent, even though the agent does not perform the *basing*: the basing is performed by a module that employs the agent’s general beliefs stored in working memory. This is all that is required for a belief to be epistemically inferential, since whether it is justified depends upon whether the input beliefs are justified.

In this section I have argued that even if pragmatic inference is modular, it is still epistemically relevant in that the inputs to the inference serve as epistemic reasons for the outputs. Specifically, the doxastic states that serve as premises – among them the belief that S said ‘x’ – in the inference to a conclusion of the form S said that p, transmit epistemic justification onto the conclusion. The

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<sup>130</sup> At some points Burge seems to be aware of this: He notes that Davidson claims that “the linguistic elements that are shared are not sufficient to enable one to understand all that is said”, and seemingly agrees with this (Burge 1999, 348 fn11). But he does not see the consequences this has for his view.

<sup>131</sup> Other properties might be relevant for justification, e.g. reliability, but that is not evidential justification.

<sup>132</sup> At some points in his 2003, Burge operates with a very strong notion of a reason: one can have a reason only if one has access to the concepts necessary to formulate the principle that governs the justification of the beliefs that is supported by the reason (see 528-529). At other points, he seems to be operating with a weaker notion, according to which there are reasons as soon as there is propositional inference (see 504-505 fn1). In allowing for modular reasons in his 2013, it seems plausible to assume that he is operating with the weaker notion. It is of course the weaker notion that I am employing in this thesis.

conclusion would not be justified unless the premises were justified: there is a positive epistemic dependence relation holding between the conclusion about the speaker meaning and the premises, even if the states are employed by a module, rather than by the subject's central system. This was argued to be so because even if a module employs the beliefs, the beliefs are nonetheless beliefs of the agent to which justification applies. This suggests that one cannot tell through mere introspection whether a given belief is inferential or not: beliefs that are the outputs of modular processes are commonly held to be cognitively spontaneous. This suggests that whether belief is epistemically inferential or not is to be determined through looking at the belief's etiology. The question that must be asked is whether the process of belief fixation took as input a doxastic state. If the answer is 'Yes', the belief is epistemically inferential, as well as psychologically inferential<sup>133</sup>. Since a pragmatic module is an inferential module that does take beliefs as inputs, the conclusion that the outputs of the module are epistemically inferential seems to follow. The beliefs that are taken as input to a module seem to satisfy my criteria for being epistemically relevant – so the overall process seems to satisfy the criteria for being epistemically relevant<sup>134</sup>. So even though as Carston notes (Carston 2002, 8)

[t]he unconscious inferential processes, mediating input and output representations, internal to the modular mental systems are very likely to be quite distinct from the conscious, normative rationalizations of the personal-level theorist,

we can hold that the mental representations that are inputs serve as reasons for the outputs. This is because we have construed a belief's epistemic inferentiality in terms of its etiology, and the etiology of beliefs about what is said, whether or not they are produced by modular processes, includes beliefs that serve as their basis. The beliefs are part of a causal explanation of the conclusion. So even though the explanation given by a causal version of the inferential model of communication might not be of the ordinary folk-psychological type, it includes states of the subject that are epistemically relevant. That is so even if those states are employed by sub-personal, modular systems. Carston (2002, 8-9) claims that cognitive pragmatics is aimed at a purely computational level, as against the objection that the mental representations involved in

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<sup>133</sup> Of course, as I argued in Chapter 1, the input beliefs must also be the bases, in the sense of 'taken as evidence for', for the outputs (strictly, the contents of the inputs are taken as evidence for the outputs). As I noted there, 'taken as evidence for' is understood in a very weak sense: the subject's system or a module take certain information as evidence for other information, as is exhibited by their processing (cf. Winters (1983, 216): "'Seeing the connection' [...] is simply being disposed to make transitions that exhibit it"). Through the basing requirement, we block certain beliefs produced by deviant causal chains or flukes to count as epistemically inferential, and we ensure that if memory and introspection take doxastic states as input (as we might dispute) they are not counted as inferential processes – since they fail to involve basing (e.g. the proposition p is not taken as evidence that I believe that p when then introspective belief that I believe that p is output from a process taking as input the belief that p.) (For a congenial discussion of this, see Lyons 2009, 140)

<sup>134</sup> They seem also to satisfy Lyons' 2009 criterion: "*a process is (epistemically) inferential* if and only if (i) the synchronic inputs to the process are beliefs and (ii) the outputs it produces in response to such inputs are not only caused by, but based on, these beliefs" (Lyons 2009, 142)

the explanation are personal-level, and that pragmatic theorizing therefore is personal level. Carston might be right that the explanations are sensitive only to computational properties: but the fact still stands that the states have propositional contents. So even though pragmatic explanation is only sensitive to the syntactic properties of the process, on another level, the pragmatic inference attributed to hearers is still an *operation* on propositional contents<sup>135</sup>. It is this feature, I believe, that makes them epistemically relevant. Pragmatic inference falls epistemically within the pattern that Bonjour notes:

“It is clear that we often think, commonsensically, that we know various things which apparently would have to be justified on an inferential basis if justified at all, but for which the required inferences not only have not been formulated explicitly, but could not be formulated without very considerable reflective effort – and perhaps not even then (Bonjour 1985, 20).

I take the considerations of this section to support the claim that a belief may have an inferential justificatory basis without there being access from the subject’s point of view to, even on reflection, any inference that supports the belief. The inference might be modular. And a process that is modular is sub-personal: it is not performed and cannot therefore be attributed to the agent. So by showing that a modular process nonetheless can be epistemically relevant, I have shown that sub-personal processes can be epistemically relevant. For Pettit’s and Burge’s modular argument to have any force, it must be assumed that pragmatic inference is performed by a Fodorian module. But no one believes this. So the argument does not seem to have any force against me. Fricker suggests that “the correct interpretation of an utterance containing context-dependent expressions will always involve something like inference to the most likely explanation. But this could all be done subpersonally [...]” (Fricker 2003, 350), implying that it therefore makes no epistemological difference. I have argued that it does make an epistemological difference, since it involves a belief’s being based on other beliefs of the agent, even though this is “done subpersonally”. I now turn to a further objection to inferentialism about comprehension.

#### 5.1.4

A common objection to inferential accounts of communication is that the requirements for being able to communicate are too strong: the mental machinery required is too sophisticated. Some beings, e.g. children, that seemingly can communicate seem to lack some of the required abilities. If the task of the model is to explain communication in general, we have a problem, and the use of the model to explain justification of comprehension states might not be apt. There are two types of objection here. One objects that communicating children do not have a crucial *ability* required by the inferential model, namely a theory of mind – the ability to attribute mental state, in particular intentions to others (the comprehension state is an attribution of an intention to the speaker). The

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<sup>135</sup> Cf. Fodor 1985, 91-94.

second objects that children lack some of the *concepts* required by the inferential model, such as *truth*, *saying*, *intending*. These are objections to inferential models of communication in general, and since I have assumed such a model here, I will not spend much time responding to these objections. However, responding to them will make certain commitments of my *epistemological* model of communication clearer. But I will also discuss an objection to the epistemological model specifically: the objection that the model demands that e.g. children have *epistemic* concepts that it is implausible that they have, yet they have justified beliefs.

First, regarding abilities. The fact that the inferential processing in question might be modular, as discussed above, helps weaken the requirements regarding mental sophistication. The claim is that the module responsible for pragmatic processing is innate – i.e. the model no longer requires general theory of mind reasoning abilities. So evidence that children do not have such general abilities do not necessarily cast doubt on the view that they communicate inferentially. Since my epistemic account is compatible with a modular view, this objection seems to raise no problems for my account. Second, the evidence is not clear that children do not have such abilities. If they can make such inferences, then they satisfy the same conditions as adults with respect to the premises being reasons for the conclusion, because if one satisfies the criteria for making the inference, then one also satisfies the criteria for having the premises as reasons. Anyone who can make an inference can satisfy the conditions for employing reasons.

Now, even if my account does not place too high a demand on abilities, it might be argued that it places too high demands regarding possession of concepts. In order to be in a doxastic state, the subject must possess the concepts that constitute the proposition. My account claims that a comprehension state is a doxastic state which represents it as being the case that S said that p. Not only must the subject possess all of the concepts constituting p; for example, imagine a case where John says to Violet that Napoleon was a Corsican. In order to understand the utterance, Violet must represent it as being the case that John said that Napoleon was a Corsican. So she must possess the concepts *Napoleon*, *Corsican*, etc. But she must also possess the concept *say*. A version of the inferential model of communication will require that she has the concepts *intention* and *convey*: the representation of the speaker meaning is representation of an intention of the speaker. At this stage, one might object that one can understand utterances without having such concepts. My account entails that one cannot: for the state of understanding is a doxastic state that one can be in only if one has the right concepts.

But it is not clear that children lack these concepts. The inferential model entails that children do have these concepts, and it is the most plausible account of communication on offer. If the objection is to have any effect, strong reasons must be provided for thinking that children lack the

concepts in question e.g. *saying*, and one must show that another plausible psychological account of speech comprehension is available that does not entail that children have these concepts. Cognitive scientific explanation is our best guide to the attribution of concepts. If our best theory entails that children are in possession of concepts of this sort, then we should believe that children have concepts of this sort. So if the argument is to have any force, independent reasons must be given to doubt that children have the concepts. I can see no such reasons. I think it is plausible that children can represent it as being the case that S said that p. Note that ordinary non-inferentialist experientialist accounts seem to be committed to that being so as well: the propositional content of understanding experiences are assumed to be identical to those of the corresponding BWS (note that this is necessary for Hunter's argument below to work). What differs is their epistemic category (they are non-doxastic). So this seems to be a problem that arises for non-inferentialism too.

But there is a more general response to the two objections above. We may grant that children *do not* have the *abilities* and/or *concepts* required, and that a model of communication less demanding would have to be employed in order to explain their comprehension. But it does not follow from this that the inferential model is not true of adults. It does not follow that the inferentialist epistemology I have offered for comprehension is false in general: only that it cannot explain children's justified comprehension. My account still applies to mature persons. There is no reason to suppose that since children grasp propositions expressed in a simpler way – that since different machinery is involved in communication - that is also true of adults. We would expect the psychology to be different: in children, a basic form of (non-inferential) processing may be involved that does not involve complex metarepresentations, while in adults, a more sophisticated form of (inferential) processing is involved (see Breheny 2006 for an account of basic communication in children). If this were the case, the epistemologies of children and adult communication would be very different. I do not intend here to give an account of the epistemology of children's communication, though I suspect the account would involve *entitlement* or non-inferential justification, rather than inferential justification; that is, reasons for beliefs do not enter into the picture at least as far as comprehension states are concerned. The strategy of restricting one's epistemic account to adults is familiar: see Fricker 1994 and 2004, Malmgren 2006 and Schiffer 2003 regarding testimonial belief.

Third, objections to the epistemic model specifically. The objection claims that having reasons involves having certain epistemic concepts, and having the ability to give reasons. Since the epistemological model claims that one must have reasons for one's beliefs about what is said, the model makes implausible demands on children, who seem to lack such epistemic concepts, yet they have justified beliefs about what is said (and justified testimonial beliefs). Often associated with

inferentialist positions is the view that the requirement of such views is that the hearer must “be able to supply as backing an argument” (Dummett 1993, 420), that the view requires that a standing in the space of reasons is “constituted by the cogency of an argument that is at its occupant’s disposal” (McDowell 1998, 415), that “it is *always* in order to require that the hearer be able to furnish [a justification for the resulting belief]” (Cooper 1987, 94 – surprisingly, he takes that position to be the most plausible version of inferentialism about comprehension) – and that if one is unable to supply an argument in support of the content of one’s belief, one’s belief is not justified. I regard such versions of inferentialism as nonstarters. It should be clear that I am not committed to claiming any of this: what the above authors seem to have in mind is the ability to claim or give justification, not the property of being justified (though the claim might be that the former is necessary for the latter). I do not claim that the subjects must give reasons. The requirements I gave for having a reason are no stronger than the requirements for having a belief and basing it on other beliefs. If a subject can have a nonbasic belief, then the subject can have a reason for a belief. I admit, of course, that the subject must possess the concepts that compose the belief. Possession conditions for reasons in my sense should be no stricter than possession conditions for belief. If one has beliefs that can enter into non-deviant causal chains with other beliefs, then one has operative reasons for belief. Burge seems to be operating with a much stricter notion. On his view, for one to have a reason, one must have such concepts as epistemic, warrant, reason, reliable, and so on (Burge 2003, 521). This is clearly an over-intellectualization. Children have beliefs and base some of their beliefs on other beliefs. The basis beliefs should count as reasons, and not just causes. All that is required is the ability to think the reason. So long as one can explain the behaviour in terms of beliefs and desires, or in this case belief, there are reasons. And we can explain without the person having access to those reasons, as we saw above. There might be a correct explanation of a person’s action or inference in terms of beliefs and desires that she does not have access to.

Burge applies the general objection to comprehension: “Many comprehenders cannot articulate the inductive and context-dependent transitions that they make from perceiving utterances, as physical tokens, to assigning a representational content and mode to the utterance” (Burge 2013, 278)<sup>136</sup>. Here Burge assumes that one must be able to articulate one’s transitions if one is to count as reasoning epistemically. As we have seen, though, this assumption is false: many beings have the capacity to infer conclusions from their beliefs without having the capacity to articulate those inferences. As I have claimed, there are reasons and reasoning as soon as there are reason-explanations. And one can explain a person’s attitude in terms of reasons without that person

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<sup>136</sup> I take it that Burge is employing the term ‘inductive’ broadly here, so as to include any non-demonstrative type of inference. As I have noted several times, the processing is plausibly abductive. Note that also Burge agrees that one makes such transitions, he just believes that one cannot articulate them.

having the ability to articulate that explanation. Burge himself (2013, 4, fn6) seems to agree: he claims that “[t]here may be cases in which fully formed psychological states operate as reasons in a psychology, but are not accessible, even in principle, to the reasoner’s consciousness” , which seems to entail inarticulability: it is, of course, much stronger than inarticulability. So it does not follow from the claim that comprehenders cannot articulate their transitions that these are not inferences, and that the states they produce are not doxastic states that are inferentially justified. Anyhow, as we argued above, it is not implausible to claim that comprehenders can access and articulate their reasons should the question arise (though not in full detail: but that can hardly be required if articulability is to be a plausible condition on having reasons).

The first two objections are objections to the inferential model of communication. I have offered reasons to doubt that they are serious problems, but as the inferential model of communication is an assumption of the thesis, I defend it no further here. The model assumes a certain amount of mental machinery. I have argued that no further machinery is needed for reasoning. Arguing that the account is too demanding is begging the question against me. To the objections against the epistemological model specifically, I responded that the demands on having inferential justification should be no higher than the demands on having inferential beliefs: requiring ability to articulate seems to confuse the notion of giving a justification with the notion of being justified (for more on this, see Alston 1989) – and requiring possession of epistemic concepts is a clear over-intellectualization of inferential justification. Once again, it is important to notice how weak the demands of the inferential model are. It does not require that comprehenders be in possession of epistemic concepts; it does not require the capacity to articulate one’s reasoning. I have been open about what cognitive machinery is required: the ability to attribute mental states to others, more specifically, a communicative intention; and one must possess the concepts that are the constituents of the propositions that are the contents of the suggested belief state. As we have seen, there is reason to suppose that comprehenders have these abilities. But if it is the case that certain comprehenders can communicate without such abilities, this does not show that all comprehenders do. It might be that children’s communication is less sophisticated, a form of basic communication. I admitted that if that is the case, the epistemology might look different. But my claims still hold for the adult case.

### 5.1.5

A fifth objection attacks the inferential model as an account of comprehension by offering an account of communication that explains the phenomena that the inferential model is purported to explain, yet avoids positing inferences on the part of the hearer in comprehending explicitly expressed content. This could preserve the view that comprehension is epistemically non-



inferential<sup>137</sup>. The non-inferentialist can here favourably employ the account of Recanati (2002, 2004). For Recanati, no inferential processing is needed to account for how hearers grasp the explicit content of utterances: the gap between decoded semantic meaning and speaker meaning is bridged by a non-inferential and sub-personal associative process guided by a criterion of accessibility, which “ultimately outputs a conceptual experience” (Recanati 2004, 16). This formulation, of course, tallies well with the view that the epistemology of comprehension is non-inferential. In claiming that understanding is an experience, Recanati is in effect denying that an understanding must be justified, since an experience is not something that is apt for epistemic justification. Moreover, the processing in question is claimed to be non-doxastic: doxastic states do not figure in the etiology of the states produced. Thus the access to content is not mediated in any sense, which also is appealing to the non-inferentialist. On Recanati’s view, the processes involved in comprehension are inferences in a very wide sense of the term, according to which also perception is inferential. Taken in this sense, the inferentiality of comprehension would not provide a basis for an argument to the effect that it is epistemically inferential. So if the proposal could be made to work, the argument of this thesis would be undermined<sup>138</sup>. That defenders of the non-inferentialist epistemology have something like Recanati’s account in mind is evidenced by the following statement by Burge: comprehension, he claims, “begins with perception and proceeds through a complex, context-dependent set of unconscious transitions” that are not “a sequence of the individual’s unconscious propositional inferences involving beliefs about sounds, speech acts, and the like” (Burge 2013, 278). Of course, the non-inferentialist does claim that complex processing is involved in comprehension. The question concerns whether the processing is epistemically relevant or not. What I want to stress here is that the non-inferentialist is committed to an account along the lines of Recanati’s: it is a large commitment regarding the psychology of speech comprehension. If the inferential model is true, so is inferentialism about the epistemology of comprehension.

At this stage, the epistemological question of whether our access to content is inferential or non-inferential seems to depend on psychological theses about speech comprehension. I cannot discuss such matters here; in particular, I cannot discuss Recanati’s account: I have assumed the inferential model to be true, so a denial of the model is begging the question against me. But we have

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<sup>137</sup> Though not straightforwardly, since psychologically non-inferential processes can nonetheless be epistemically inferential.

<sup>138</sup> Defenders of the inferential model stress that their account posits processing of a very different kind than Recanati’s. So even though, as we noted above, Carston is reluctant to posit personal level inferences, she does distance herself from Recanati’s view of comprehension processes as brute, non-doxastic processes. This helps us see that the inferential model really is committed to there being inferences in a strong sense: that the processing involved is propositional and involves doxastic states. If such requirements are dropped, the difference between Recanati’s views and the inferential model start to seem less clear.

previously seen reasons to doubt whether its employment of the distinction between primary and secondary processes hold up to scrutiny, and relatedly, we have seen its inability to explain the phenomenon of mutual adjustment of propositions explicitly expressed and implicatures. Since the non-inferentialist is forced to accept an account along the lines of Recanati's, such problems will appear for her. And crucially, if non-inferentialists about the epistemology of comprehension employs Recanati's account, they are no longer neutral on the psychology of comprehension. Recanati's account is precisely an account of the underlying processes taking one from decoded meaning to understanding the explicit content of an utterance, and it explicitly denies that such processing is inferential. That the non-inferentialists wish to stay neutral on the processing involved is clear from Burge's claim that "we seem normally to understand content in a way whose unconscious details (*inferential or otherwise*) are not accessible via ordinary reflection" (1993, 477, emphasis mine). Thus, according to Burge, the claim that if a belief is arrived at through inference, its justification must be inferential doesn't hold. His claim is that the "unconscious details" of the comprehension processes might involve inference, but he still maintains that the warrant for the BWS does not involve inferential justification. So he thinks he can remain neutral on whether comprehension is inferential or not. Fricker states that her remarks to the effect that understanding-experiences provide grounds for BWS "all describe the conscious, personal-level nature of linguistic understanding, and are intended to be neutral on the nature of the psychological and neurological processing mechanisms which underlie this" (Fricker 2003, 326). Since Fricker holds the non-inferentialist view, and her account is meant to support it, she must think that unconscious processes do not play any epistemic role. Thus, the non-inferentialists may want to say that underdetermination is a pervasive feature of communication and accept that pragmatic inference is needed: these are features of the psychology, not the epistemology. But this is precisely what they cannot say: if my arguments are correct, they cannot accept the inferential model. They are committed to a view about the psychology of speech comprehension that involves the denial of the inferential model. What I have noted here is that if such an account, e.g. Recanati's account, is true, my inferentialism lacks motivation, but that the non-inferentialist is committed to such an account being true. Let me here stress again how widely shared the inferential model of communication is. The endorsement of something like Recanati's proposal seems too high a cost for the non-inferentialist, at least if she wants to stay neutral on the psychology of speech comprehension.

## **5.2: Doxasticism about comprehension states defended**

In Chapter 2 I argued that the state of comprehension is a doxastic state, based on the assumption that it is the output of an inferential process. The state that one is in after having successfully

processed an utterance is a committal state that is tokened in one's belief box (though a more nuanced picture will emerge below). Moreover, it is assessable for justification, and I claimed that since it is a psychologically inferential belief that instantiates the basing relation with a set of premise beliefs, its justification is necessarily inferential. The claim that the state is doxastic played a crucial role in the argument for inferentialism in the epistemology of testimony. If it could be shown that the state of comprehension could not be a state of belief but must rather be a state understood on the model of perceptual experience, it would be devastating to my account. Moreover, it would threaten the inferential model of communication itself, since it is questionable whether if the output of a process is an experiential state, the process can be deemed inferential (if so, it would be inferential in the weak sense of Fodor (1983) alluded to above). The objection I now turn to is designed to show just that. Its aim is to show that comprehension states belong in a different epistemic category than states of belief. Versions of the objection are found in various places in the literature (Hunter 1995, 1998, Fricker 2003, Pettit 2002). Here I discuss the version found in Hunter 1998, though my response should be applicable to other versions as well.

Hunter wants to show that the products of the processing involved in comprehension are distinct from belief. He wants to reject the view that "the process that produces occurrent states of understanding is a belief forming process" (*ibid.*, 565), precisely the view I have been defending. The central point that Hunter wants to establish is that a subject may understand an utterance to mean something yet fail to believe that it means that. If he can establish this, he believes, it follows that states of comprehension are fundamentally different from states of belief: they belong in a different epistemic category and lack some of the central properties of belief. He argues that they share more properties with perceptual states: they are "conscious states of awareness" (*ibid.*, 559). Hunter thinks he can show this by constructing cases where a person is not disposed to assert that X means that such-and-such, even though it seems to her that X means that such-and-such (she understands X to mean such-and-such). Since the person is not disposed to assert it, she does not believe it<sup>139</sup>. Hence the state that represents it as being the case X means that such-and-such, i. e. the comprehension state cannot be a state of belief. Belief is not necessary for understanding. Another way of putting the objection comes from Longworth:

Since a veridical take on meaning can be retained through disbelief, a belief-based model of that take would imply simultaneous belief and disbelief in the same content. And that seems incompatible with the fact that attempted withholding of belief might in some circumstances be rational (Longworth 2008, 55-56)

The objection corresponds to the familiar Müller-Lyer illusion case against doxastic accounts of perceptual experience. Here, one's perceptual experience represents it as being the case that the

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<sup>139</sup> One can take issue with the condition for having a belief. I will not do so here.

lines are of different length, yet one believes that they are of equal length, and the situation is entirely rational. To illustrate the case, Hunter's offers the following example:

Consider, first, a subject who doubts the reliability of her understanding. Suppose that S is attending Jones' speech and understands Jones to be saying that Bill Clinton is President but suspects that the crowd noise at that moment is causing auditory interference. In that case, S might not be disposed to judge or assert that Jones is saying that Clinton is President. S may thus not believe that that is what Jones is saying even though that is what S understands Jones to be saying. (Hunter 1998, 572)

Of course, had S's understanding been a doxastic state, we would be forced to attribute to her both the belief that Jones said that Bill Clinton is President and the belief that Jones did not say that Bill Clinton. Since S is perfectly rational, that conclusion would be absurd. It is meant to follow that states of understanding are not states of belief.

I turn to my response. I offer four quick *prima facie* responses, and one more developed response. First, it is controversial whether experiences in general are apt to ground beliefs (although this view has become more popular in recent times (cf. Pryor 2001, 2013)) of that kind (about the world). Coherentists, for instance, would argue that belief can be justified only in virtue of standing in relations to other beliefs (drawing motivation from the familiar Myth of the Given argument proposed in Sellars (1956) (for a contemporary discussion, see Pryor 2013). Very roughly, the central idea is that the property that enables a state to confer justification is the same property that makes it the case that it stands in need of justification (and only doxastic states satisfy the relevant conditions)). It is not only coherentism that one rejects if one endorses the experiential view. Lyons 2009, for instance, argues that while only beliefs can evidentially support beliefs, this does not commit one to the denial of the existence of basic beliefs – those are the ones that are the outputs of primal modular systems, and experience plays no role in justifying them. Hunter does not give a thorough account of the justifying role of experience (though see Hunter 1995, where he gives an *adequate grounds account* in terms of the reliability of the grounds (drawing on Alston 1989. What is lacking, however, is an explanation of just what relations the states can enter into, and what content they have)). He merely takes for granted that experiences can ground beliefs. This assumption is, of course, not free of charge. Though this is a very general worry, Hunter owes us an account of how they can do so; at least *specifically* for the case of understanding. Understanding-experiences are a controversial theoretical entity, and it is not clear whether Hunter can simply adopt a general account of how experiences can ground beliefs in order to account for how such understandings can ground beliefs about what is said. Of course, Hunter claims that the states are propositional (paradigmatically so – perhaps unlike perceptual experiences (cf. Burge 2013)), and this could go some way towards explaining how they can stand in appropriate epistemic relations to beliefs about what is said. However, the states are claimed to be *non-committal* in a sense in which beliefs are not. It might be the lack of this quality that gives rise to a reluctance to allow them to be

justifiers. If they are committal, however, there is no reason to construe them as in a different epistemic category than doxastic states.

The fact that the experiences are claimed to be non-committal leads me to a second worry about Hunter's case<sup>140</sup>. It is not clear that we should attribute understanding to someone who fails to have a belief about what is said<sup>141</sup>. The reason for this might be that understanding is committal – it is a person's conclusion about what is said<sup>142</sup>. At least, it is not clear that a person who positively disbelieves that a given utterance means what it appears to her to mean has understood that utterance, as Hunter must claim. If that is so, Hunter may have a point about *seeming* understanding, but fails to account for *fully-fledged* understanding. Fully-fledged understandings might be doxastic states: this would account for their property of being committal. They are *accepted* hypotheses about what is said – it not only passively *appears* to the hearer that S said that p, the hearer actively concludes that S said that p.

Third, related to my point above about the blurry lines of the distinction between experiences and what are instantaneously inferred from experiences, with comprehension, as in general, it is hard to know exactly where to draw the line between a belief that is generated on the basis of processing that is doxastic and processing that is non-doxastic. As Fricker notes, with respect to her account of understanding-experiences, determining which “properties of an utterance may feature in an understanding-experience, and which are merely instantaneously inferred from it, is no less, and with luck, no more difficult than determining the line between what is present in the content of a visual perception and what is merely instantaneously inferred from it” (Fricker 2003, 328 fn6). In other words, it is hard to know exactly when *beliefs*, as opposed to non-doxastic or subdoxastic states enter the picture. Fricker and Hunter seem to have no principled boundary here. What I have done is to claim that the boundary is drawn further down than Fricker and Hunter do. The full truth-conditional content of an utterance is instantaneously inferred from one's belief about the speech act that is generated on the basis of what may be an understanding-experience (though I am not

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<sup>140</sup> Hunter also claims that states of understanding do not admit of justification. He claims that “one cannot [...] ask whether [...] S is justified in having understood Jones to have said that Clinton is president.” (Hunter 1995, 121). A similar worry is found in Burge's 1999: “It is no more in place to ask someone who is a perfectly competent language user to support his or her presumed understanding of someone who says “push-button telephones are more common than rotary ones” than it is to ask a normal perceiver how he or she justifies a perceptual belief that that is a brown lectern, when he or she is looking at one in good light” (Burge 1999, 355). In response to these considerations I reply that, first, this is only a *prima facie* consideration: the fact that it is inappropriate to ask for justification does not entail that the state is not (inferentially) justified or that the state is an experience rather than a belief (as Hunter but not Burge suggests). Second, it is far from clear that the question is not in place. To me, it seems entirely appropriate to ask for the justification of a person's understanding of an utterance. It is only inappropriate if one has already assumed that the comprehension state is not a belief. I think a person's understandings of other people's utterances is relevant to evaluating that person's rationality (but perceptual states are not).

<sup>141</sup> This reluctance is shared by Longworth 2008, 56.

<sup>142</sup> On my account, of course, understandings are fully committal beliefs arrived at through inference. But I am not begging the question here. The worry is *prima facie*, and not based on my own theoretical point of view.

committed to this) – at least, a belief that is generated non-inferentially.<sup>143</sup> If that is so, there is a further reason to doubt that the experiences can ground a belief about what is said: it could be argued that the full truth-conditional content is not part of the experience. Again, if there is any such experience, it seems more plausible that it serves as the basis not for a belief about what is said, but a belief to the effect that the speaker said ‘X’, where X specifies the minimal semantic non-propositional content of the utterance, which is the output of decoding. That belief is not a belief about what is said. It serves as a premise in an inference to the effect that the speaker said such and such<sup>144</sup>. As I noted above, Hunter does not provide a full specification of the contents of the experiences. This makes it hard to draw a principled distinction between what is part of the experience and what is inferred – and in the absence of such a distinction, Hunter does not have a case against inferentialism. One would have such a case only if one could argue that the understanding-experiences contain the full truth-conditional content of the utterance (and force, of course). Based on my presentation of the inferentialist picture, it seems clear that the full truth-conditional content does *not* seem apt to be experienced or accessed directly. This becomes especially clear when one considers various kinds of semantic underdetermination. Thus, the role of experience, if any, seems to be to ground not conclusion-beliefs about what is said in this rich sense, but to ground premise-beliefs to the inference which outputs such conclusions. That seems to be compatible with what Hunter claims. Fricker wants to argue that the content of an understanding-experience includes the full propositional content (cf. *ibid.*). But this cannot be – that content is inferred, much like we infer from our believing that the sky is grey on the basis of seeing it to the conclusion that it will probably rain. As Fricker herself says, it is hard to draw the line between what is perceived and what is inferred from the experience. This allows me to argue that what we perceive is the semantic content (although I have a very hard time saying this, since I do not believe that we can perceive content), but that this falls short of helping me determine what the content of the utterance is (the proposition expressed). I can draw the line between what is inferred and what is perceived further down than Fricker does or Hunter would do, but they have made no in-principle claims as to where to draw it, so drawing the line further down seems to preserve the notion of an experience (that importantly plays an epistemic role – for we might want to hold that

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<sup>143</sup> Fricker seems to think that non-literal uses of language would involve such swift inferences from the understanding-experiences she postulates (or rather, from beliefs based on them). What I have argued, of course, is that there is no in-principle difference on the comprehension side between what she calls non-literal and literal use.

<sup>144</sup> Some may want to argue that the input to forming a belief about what is said is a belief to the effect that the speaker said that p, where p is understood as a minimal proposition. Such a position would, however, agree that this is not a belief about what is said in my terms. A belief about what is said in my terms is a belief about the full truth-conditional content of the proposition expressed: minimalists would not want to argue that the minimal proposition is the proposition expressed or communicated.

the output belief of comprehension is accompanied by a certain doxastic experience that does not play an epistemic role (since only the premise beliefs serve as grounds)).

Fourth, the inference involved in communication is automatic and will output the belief that best fits the evidence. On reflection, one might come to doubt whether the output belief should be held, for instance if one believes one's auditory systems to be malfunctioning. In this case, the inference may still run, outputting a belief, but a belief which one rejects the moment it is tokened. It is not clear that if a person who fails to believe that an utterance means what it seems to her to mean thereby must have an experience: the representations could simply be instantiated *at different times*. The temptation to believe might result from a process of automatic inferential belief generation that continually gets overridden. It does seem plausible, however, that e.g. the belief that the lines are of the same lengths (in the Müller-Lyer case) is a standing belief that is not replaced at short intervals with the belief that they are of differing lengths. The possibility remains open, however.

Now to a more developed response. This is the claim that Hunter's argument does not show that in the good case, the output state is not a belief, coupled with the claim that the argument does not show that in the bad case the state is in the same epistemic category as a perceptual state. First, the good case: the conclusion that we are meant to draw from the argument is that even in the good case, there is an understanding-experience that serves as the ground for a belief about what is said. But there seems to be no good reason to take the supposed experience in the good case to be different from the belief that it is meant to serve as a ground for. What happens is this: a representation of the fact that the speaker said that *p* is generated, but whether this representation is tokened in the belief box or is simply treated as a temptation to believe depends on the cognitive role that the representation is fit to serve in the psychology of the hearer. If no defeaters are present, the representation is fit to serve as a premise in further (perhaps testimonial) inference or as a guide to action: it is tokened in the belief box. The state is a doxastic state. There is no reason to suppose that there is an experiential state *in addition*. Lyons notes that "the standard view in the philosophy of mind [...] holds that (occurently) believing that *p* is a matter of standing in a certain functional relation to a representation, *R*, which has the content *p*" (Lyons 2009, 71). What functional role a representation has can thus change, and it can simultaneously instantiate roles associated with different types of mental states. This understanding of the individuation of mental states lets us propose the following solution to Hunter's argument: from the fact that a person can fail to believe that an utterance means what she understands it to mean it only follows that there are two different *types* of states, not that a given representation *token* is an experiential state. In the good case, the representation is a doxastic state because it serves the functional role of belief states.

What about the bad case? In the bad case, the state might be grounded in other beliefs, which a perceptual state is not. The state might be a *conditional intuition*. The intuition fails to result in belief because of the defeaters. One has certain premises at one's disposal, but one does not draw the appropriate conclusion from them: one does not infer that the speaker said such-and-such. Rather, one is tempted to believe that the speaker said such-and-such by the premises one entertains. As an example, Dogramaci offers the following: "I have a conditional intuition that dolphins are born live, which is generated by my belief that dolphins are mammals and all mammals are born live. I might self-attribute this conditional intuition by saying, 'It seems to me, in the light of my beliefs that dolphins are mammals and mammals are born live, that dolphins are born live.'" (Dogramaci 2013, 397). I think the account of inference and basing assumed in this thesis, what one might call a 'habitual' view, is an instance of a Humean view of reasoning: there is an associative psychological relation between the premises and the conclusion, but no intermediary contents. The associative relation is the conditional intuition. Now, in the case of pragmatic inference, a number of beliefs are generated and brought to bear on the communicative situation. For instance, a belief that the speaker said e.g. 'John is ready' is generated. This belief, together with a set of others, generates the intuition that the speaker said that John is ready to go to the cinema. But the hearer may still fail to believe that the speaker said that, due, for instance, to distrust of her hearing. So no conclusion about the speaker's intention is drawn. But still, an inferentially generated mental state – a temptation to believe the conclusion – is generated. This story accounts for the case Hunter offers just as well as the story that what is involved is an experiential state that represents it as being the case that the speaker said that John is ready to go to the cinema. If that is so, the inferentialist is not forced to admit the existence of understanding-experiences that play a justificatory role. The phenomenology of speech comprehension is readily explained without admitting of such states. Thus the view that comprehension is inferential can be maintained (remember that if the comprehension state is an experience, it is hard to see how the process that generated it could be inferential, since inference is a transition among beliefs). Suppose S has evidence that her reasoning capacities are not functioning properly. Her system infers from the belief that the streets are wet to the conclusion that it has rained. But since she doubts her reasoning capacities, she does not come to believe that it has rained. It does not follow that the output of the reasoning capacity is a non-inferential, non-doxastic state. S feels a temptation to believe the conclusion of the reasoning process - the output of her reasoning capacities, but refrains from doing so. This is a case where the seeming-state is inferentially grounded – it is a conditional intuition.



Lastly, I offer a case constructed to show that at least some states of comprehension need not be states of seeming. Understanding may occur without a corresponding experience, or even a non-veridical experience. Let us say that it seems to A that S communicated that p. Let us say A does not trust her speech perception capacities, so she does not come to believe that S communicated that p – let's say that she believes that she misperceived a particular word, and that she in fact misperceived that word, in the utterance. However, A, partly from the context, partly from her perception of the other words, is able to infer that S communicated that q instead. She disregards her seeming. Let us assume that S in fact intended to communicate q. In this case, I take it that A has understood the utterance, even though she did not have a veridical understanding experience, and even though it did not seem to her as if the speaker communicated that q. She had a seeming understanding-experience<sup>145</sup> as of S communicating p, but she disregarded this and formed the *belief* that S communicated q instead. In this case, the state of understanding is the state in which she veridically represents S as having communicated q. This is a belief of hers, one that she inferred partly from beliefs about the utterance, partly from contextual beliefs, possibly beliefs about the speaker's intentions. So a belief to the effect that S communicated that q is in this case the state of comprehension. This might suggest that such experience is not necessary for understanding – in the sense of *being* understanding<sup>146</sup>. So understanding-experiences are not constitutive of understanding either. Hunter will no doubt reply that such are not normal cases. Yet, the case still shows that veridical experience is unnecessary for understanding, and that experience is not understanding, even though it might have played a role in the acquisition of that understanding.

So far, I have responded to the objection that belief is not necessary for understanding. I have argued that the argument does not establish this. A further objection holds that belief about what is said is not sufficient for understanding (Fricker 2003). This is so since one can gain beliefs about what is said through testimony or through the use of subtitles, yet one would not count as having understood the utterance. On my view, states of understanding are states of belief. BWS are not perceptual. They are straightforward inferential beliefs. So this sufficiency problem might seem to arise here. But I respond that not any BWS will count as a comprehension state. Comprehension states are BWS that are arrived at in a particular way. Previously, I have characterized BWS as such through specifying their contents. However, a specific way of arriving at a belief is not implied by specifying its content. So how does one delineate the comprehension-BWS from e.g. the BWS that one has acquired from the testimony of others? I suggest that understanding is *Comprehensional Belief* about what is said. A Comprehensional Belief is a belief that is the output of comprehension.

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<sup>145</sup> On my account, this seeming is accounted for by claiming that it is a conditional intuition. See above.

<sup>146</sup> Though they might be a necessary stage in understanding.

This is not circular, since we can rely on cognitive science to tell us what comprehension is. Comprehension is whatever cognitive science tells us that it is<sup>147</sup>. One might worry that the inferential model tells us that comprehension is a completely general inferential process, but specifying the inputs to the process should help narrowing down possible kinds<sup>148</sup>. Moreover, if there is a dedicated pragmatics module, the task becomes easier: we might want to specify the comprehensional beliefs in terms of being outputs of such a module. This constitutes a reply to Fricker's insufficiency claim: beliefs about what is said acquired through testimony do not amount to understanding because they are not comprehensional beliefs. Understanding is a *particular kind* of belief or knowledge; one arrived at in a particular way<sup>149</sup>. Here, we also have a way of distinguishing beliefs about what is said that amount to understanding and beliefs about what is said that one has acquired through testimony – i.e. you may tell me that S said that p.<sup>150</sup>

In this section I have argued that while Hunter's argument offers a *prima facie* case for non-doxasticism about comprehension – for the view that comprehension states are non-doxastic experiential states understood on the model of perceptual states – it does not establish this. I can still claim that comprehension states are beliefs about what the speaker meant (but, as I noted, perhaps accompanied by a phenomenological state of seeming). Hunter has argued that the state of seeming provides grounds for beliefs about what is said. I have claimed that the experience may provide grounds for a belief that the speaker said 'X', where X specifies the minimal semantic content of the utterance<sup>151</sup>. I have not committed myself to this claim, however. The phenomenal state is an epiphenomenon regarding fully-fledged comprehension states, for the justification of the interpretation is grounded in justification for the premises of an inference to the best explanation of the utterance. If one is to introduce a new theoretical entity to one's theory, as the experientialist wants, one should have a strong motivation for doing so. Linguistic understanding has been proposed to be a kind of doxastic state – and it seems that it can be explained in terms of belief. If one wants to claim that it is another kind of state, one had better provide an account of the nature of that state, and the motivations for introducing such an entity. These might include undermining

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<sup>147</sup> This strategy of deferring to cognitive science, recognizable throughout this thesis, in matters epistemic and in the philosophy of mind might seem suspect to some. But in recent years, the methodology has gained currency (see for instance Alston 2005, who defers to cognitive science in the explication of non-deviant causation involved in basing (in line with my account in Chapter 1), Lyons 2009, who defers to cognitive science in the definition and understanding of perceptual belief, and Burge 2003 and 2010, who defers to cognitive science in epistemology and in the philosophy of perception, respectively), and I have no qualms about employing it.

<sup>148</sup> A necessary condition for being a comprehensional inference might be that it includes a premise belief of type 'S said 'X'', but that is too strong, since there will be cases where there fail to be such premises yet the output is a comprehensional belief, i.e. cases where there is no linguistic semantic material output. I do not have the space to go into how one might specify the comprehensional inferences.

<sup>149</sup> Notice that we also have analysed testimonial beliefs in terms of their etiology: they are based, i.e. non-deviantly caused by comprehension states (in addition to further conditions).

<sup>150</sup> That worry about doxasticism is raised by Fricker (2003, 332).

<sup>151</sup> The utterance is mentioned, its meaning is not represented.

objections to the doxastic account. As I see it, proponents of non-doxastic accounts have provided none of this.

### 5.3: Inferentialism about the epistemology of testimony defended

In Chapter 3 I argued that testimonial beliefs are inferential beliefs that are inferentially justified. I argued that if we regard understanding as a doxastic state apt for warrant, as we should, given the conclusions of Chapter 2, then it looks as if, if we take a testimonial belief to be based on that understanding, we have to reject the view that testimonial beliefs ever can be non-inferential, since they are going to be partly based on the understanding, which itself is a state in need of warrant, so that a testimonial belief will partly depend for its justification on the comprehension state. Here I briefly consider three standard objections to inferentialism about the epistemology of testimony and argue that they have no bite against my particular account.

First, there are a couple of claims in the literature that might be taken to insist that a belief about what is said is not necessary for testimonial belief. Audi, for instance, claims that “one need not believe, as opposed to having grounds adequate *for* knowing or justifiably believing, that the attester gave testimony that  $p$  [...]. My knowledge that  $p$  need not be inferred from any premises nor based on a belief that  $p$  was attested to” (Audi 2002, 79). He concludes from this that testimony is a source of basic beliefs: the beliefs that one acquires through testimony are not based on other beliefs. In response to an objection, Graham claims that “linguistic acceptance is not inferential in the way the objection supposes. The hearer need not believe that the subject stated that  $P$  nor that the subject knows that  $P$ ” (Graham 2000, 391).

These views would only be worth considering if a positive account of what plays the role of a ground for a testimonial belief is given. What these authors should provide is an alternative to what I have argued, namely that the subject’s only apprehension of the meaning of an utterance consists in belief – in a hypothesis about speaker meaning. Surely everyone should agree that a kind of apprehension of the meaning of the utterance is necessary in order to acquire a testimonial belief from that utterance. Some may want to claim that testimonial beliefs are based on the testimony itself. But this point seems merely terminological: there must be a state that represents the testimony as being made. Moreover, the basing relation is a psychological relation: its relata are psychological states. So such a view understood literally seems impossible. There must be an internal representation of the testimony, that is, there must be a state of comprehension. I have argued that the most prominent argument in favour of non-doxasticism do not stand up to scrutiny. One needs a motivation for introducing this new form of state. Neither Audi nor Graham provide such motivation: yet they are committed to there being such a state, i.e. a non-doxastic state, for

otherwise, testimonial belief formation would be inferential, or at least belief-dependent, contrary to what they claim. This much is noted by Van Cleve, who notes that if it is the case that “hearing A say *p* would include as an ingredient believing that A said *p*”, then “believing what you hear others say would turn out to be a belief-dependent process” (Van Cleve 2006, 73fn17). This of course, is the principle I insisted on in Chapter 3, and it is also presupposed by Graham and Audi’s reasoning.

Second, a standard argument against reductionist theories of testimonial justification might be taken to offer a case against inferentialism. Some have argued that hearers normally do not have reasons in favour of their testimonial belief; or if they have, they are not good enough to justify the testimonial belief. One could present the problem as a dilemma:

- (1) We do not have at our disposal adequate reasons to justify our testimonial beliefs.
- (2) Many of our testimonial beliefs are justified
- (3) Testimonial beliefs are justified only if we have at our disposal adequate reasons to justify our testimonial beliefs.

These three claims are inconsistent. (3) is the *positive reasons* claim. This is the claim that most authors reject (for a rejection of (1) see Faulkner 2002, Kenyon 2013). They take this to be an argument against reductionism. I suspect that these had led many to believe that testimonial belief fixation is importantly non-inferential: with the rejection of the positive reasons requirement comes the rejection of inferentialism. I argue that this should not be so. The reasons that we *do* have must be justified.

Let me note at once that such an argument does not have any bite against my inferentialism. These arguments, if successful, only establish that the justification of the inference does not exhaust the justification that attaches to a given testimonial belief. What they do not seem to establish, however, is that reasons are not *necessary*. They are an argument against *whole-sale* reductionism, which would be the claim that testimonial justification must be explained *purely* in terms of positive reasons. Needless to say, I am not committed to such a view: my only claim is that it is necessary that a hearer has a belief about what is said that can serve as the basis for the testimonial belief, and that this belief be justified. I have stated explicitly that this is only *part* of the explanation of testimonial justification. I can stay neutral as to what the full explanation might be, though my account sets constraints on this. I have claimed that, as a matter of psychology, we *have at least one* reason for testimonial belief; the further claim is that it must be justified. Whether there must be further reasons is an open question. My view entails the denial of testimonial foundationalism only, and whole-sale anti-reductionism is committed to this position. It may fit with a hybrid view, according to which “testimonial justification is not a unitary epistemological category” (McMyler 2011, 50), though as I argued in Chapter 4, inferentialism tallies best with reductionism. If that is so, one must offer the responses to the argument above that I suggested in that chapter. We ought to

view the testimonial inference as enthymematic – there are premises on which the testimonial recipient can draw that are sufficient to justify the testimonial belief, or else conclude with Schiffer that “justification is pretty easy to come by in cases like this” (Schiffer 2003, 2315).

Goldberg 2006 constructs a case to show that inferentialism is false. He imagines two twins that are identical with respect to their internal psychology: they have the exact same evidence available. Yet they are claimed to be different with respect to a given testimonial belief due to an epistemic difference further down the respective testimonial chains. If that is so, testimonial justification cannot supervene on one’s reasons or evidence. But again, this only shows that, if successful, one’s justification derived from reasons cannot exhaust one’s testimonial justification. The paper assumes that if one cannot show that the epistemic status of a belief is not exhausted by the reasons that the speaker has based that belief on, it follows that the justification of that belief is non-inferential; i.e. that the belief does not depend for its justification on those reasons but on something else. But this argument assumes monism about justification: it assumes that a belief cannot have both inferential and non-inferential justification attached to it. But this assumption is unmotivated. What the argument can succeed in showing, however, is that reductionism is not viable: at least one of the claims of reductionism (the one concerning the reduction). But it does not refute inferentialism; that is, it does not refute the claim that the hearer must have reasons for her testimonial beliefs. So it is not an argument against my view. I argued, however, in Chapter 4, that inferentialism seemingly is incompatible with anti-reductionism. If that argument was correct, one must find another way of responding to Goldberg’s criticism. Luckily, we already have one at hand: the notion of justification that I have been operating with in this thesis, and hence the one that inferentialism was argued to be the case for, is not the same as that which Goldberg employs. On my account, two persons who have exactly the same grounds have the same justification. Further, I do not share Goldberg’s intuition that the twins differ in justification.

Setting aside my argument in Chapter 4, let me sketch one way in which my inferentialism can be compatible with anti-reductionism. Let us say that there is a principle allowing for a kind of non-inferential testimonial justification: one is *prima facie* non-inferentially justified in believing that *p* when told that *p*, unless there are reasons not to. However, to access this kind of justification, one must be justified in believing that one has been told that *p*. This justification, we have argued, is inferential. One must base one’s belief that *p* on one’s belief that one has been told that *p*. Hence, the belief that *p* depends for its justification partly on the belief that one has been told that *p*. However, this enables one to access the non-inferential kind of justification that the testimonial principle allows. The resulting belief would have both inferential and non-inferential justification. However, the inferential justification is needed for the non-inferential justification to hold. This

would be inferentialism in the epistemology of testimony, since inferential justification is a necessary part of the justification of testimonial beliefs (non-inferentialism is the denial of the claim that testimonial justification is even partly inferential, it is not the view that testimonial justification is partly non-inferential, which we have allowed). Everyone should agree that a belief about what is said serves as a reason – the debate is about what makes it the case that this is a reason (evidence, assurance, trust) and about whether it needs supplementation (reductionism, anti-reductionism). I have tried to stay neutral with respect to these two debates, even though I have suggested that inferentialism tallies best with the evidential view of testimony and reductionism.

A further objection suggests that testimonial inference is a foundational inference: “A theorist might simply take the *processes of inference* involved in the acceptance of testimony to be *foundational processes*, processes that *S* is directly prima facie justified in using.” (Harman 2003, 5). I am not convinced by Harman’s argument here. A foundational method will not yield justified beliefs as output unless the input beliefs are justified. And so the outputs will depend on the inputs for their justification. Let me demonstrate. Take, for instance, BonJour’s Norman (BonJour 1980): a person that has a clairvoyance-mechanism that he is unaware of that delivers beliefs about e.g. the location of the prime minister. The beliefs simply pop into his mind, and he has no reasons for or against the belief. The common verdict is that these beliefs are not justified. Harman should agree with this. But then suppose Norman infers from his belief that the prime minister is in Oslo to the belief that the prime minister is in Norway. His belief that the prime minister is in Norway is not justified. But on Harman’s account, it follows that it is, since, presumably, Norman employed a foundational inferential method. Now, we should not dispute that Norman is justified in making the inference – but the belief that is output is nonetheless unjustified, and the explanation for this is that the input belief is unjustified. This shows that a foundational method yields beliefs that are nonetheless epistemically inferential in the sense that they depend for their justification on other beliefs. This follows also for the testimony case: beliefs about what is said acquired through extremely unreliable processes, held in the face of defeaters, are not fit to serve as a justifying basis for testimonial beliefs, even though one is foundationally justified in moving from that premise to a conclusion testimonial belief.

#### **5.4: Conclusion and Summary**

In this chapter I have responded to criticisms of the brand of inferentialism that I favour. The three general claims I have argued for, namely the claims that (i) the comprehension process is an epistemically inferential process, that (ii) the state of comprehension is a doxastic state that is

inferentially justified, and that (iii) the testimonial belief fixation process is an epistemically inferential process, seem to be preserved in the face of these criticisms. I hope also to have clarified some of the commitments of my account. I argued that my inferentialist account is compatible with the view that comprehensional states are cognitively spontaneous, and further that it is compatible with the view that the transitions involved in comprehension are inaccessible or even modular. I argued that the abilities of mental sophistication required by my account seem to be possessed by all agents capable of comprehension, but I also noted that if the unsophisticated, e.g. children, fail to satisfy the requirements, that does not force us to abandon the account; rather, it forces us to claim that it is an account of the epistemology of mature comprehension and acceptance. A different epistemology might have to be developed for the unsophisticated. Further, I argued against the objection that comprehension states are non-doxastic states: the argument purported to establish this does not hold up to scrutiny; the possibility of something's seeming to a subject to mean something she does not believe it to mean is explained not by introducing a further entity into our ontology of comprehension (understanding-experiences), but by showing that certain temptations to believe can arise on the basis of the premises of an inference, and that what happens in the bad case is that the temptation does not result in belief because of defeaters<sup>152</sup>. Further, I responded to certain common objections to inferentialist accounts of testimonial justification. I showed that these can only show that the reductionist element of those accounts is false, not the inferentialist element. They did nothing to show that testimonial belief fixation is non-inferential, or that testimony is not evidence. They merely showed that the reasons available are insufficient for justification. That does not mean that they are not necessary.

## Chapter 6: Conclusion

Let me conclude this thesis by returning to the Master argument presented in the introduction:

1. If the psychology of comprehension is inferential, then the justification of comprehension states is inferential.
2. If the justification of comprehension states is inferential, then the justification of testimony-based beliefs is inferential.
3. The psychology of comprehension is inferential
4. 

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The justification of testimony-based beliefs is inferential.

Its conclusion is a statement of inferentialism about testimony, the position I aimed to establish in this thesis. In Chapter 1, I set out widely shared views about reasons, the basing relation and inferential justification, and noted that in order to show that a given belief is inferentially justified, one has only to show that it is based on a reason. The basing relation was argued to be a causal

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<sup>152</sup> This is another virtue of doxasticism: keeping the ontology simple. One surely needs a good justification to introduce a further notion in one's explanation of comprehension, as the non-doxasticist is forced to do.

relation: as applied to doxastic states, the assumed account stated that an output doxastic state is based on a set of input doxastic states if and only if the set of input beliefs non-deviantly causes the output doxastic state. I then set out the inferential model of communication, the view that in order to comprehend an utterance, hearers must make an inference, that is, they must move through a process that takes certain beliefs as inputs and yields a conclusion belief as output – a belief about what the speaker intended to convey with her utterance. Premise 3 above is a statement of this view. In Chapter 2, I argued for Premise 1 above, namely that if the inferential model of communication is true, so must inferentialism in the epistemology of comprehension be. This was argued to be so because the process of comprehension instantiates the epistemic basing relation: it takes as input certain belief states that in turn non-deviantly - since comprehension is a normal psychological process that instantiates a disposition in the hearer – cause an output state. Since the process of comprehension is an inference the inputs and the outputs are beliefs, thus establishing that (i) the comprehension state is a belief, since it is the output of comprehension, and that (ii) the comprehension states is based on reasons, since the inputs are doxastic states. Now, by the assumption about inferential justification above, if a belief is based on a reason, it is inferentially justified, since it depends for its justification on the justification of that reason. It follows from this that the comprehension state is inferentially justified, thus establishing inferentialism in the epistemology of comprehension. In Chapter 3, in defending Premise 3 above, I argued that since testimonial beliefs must be based on the comprehension state, they must be based on reasons. This was so because first, it was already established that comprehension states were doxastic states, and second, it was argued that the basing relation must be instantiated between the comprehension state and the testimonial belief. Since testimonial beliefs must be based on a reason, their justification is inferential, and thus inferentialism about the epistemology of testimony was established. Hence, the conclusion of the Master argument follows. In Chapter 4, I suggested tentatively that inferentialism about the epistemology of testimony has consequences for the debate concerning whether testimonial justification can be reduced to other forms of justification or not: it seemed to imply that a kind of reductionism must be true, since foundational epistemic principles arguably govern transitions between non-doxastic states and doxastic states. It follows from inferentialism about testimony that such a principle cannot govern testimonial belief fixation, since it is a transition from belief state to belief state. Such transitions are better accounted for through non-foundational principles of inference. In Chapter 5, I looked at reasons to reject inferentialism but found them all wanting: an important point was that inferentialism can incorporate views stressing the phenomenological immediateness of comprehension and testimonial belief fixation – it was argued that beliefs can be epistemically inferential even if their etiology and their epistemic basis are opaque to the individual.



Much work needs to be done to develop particular versions of inferentialism. Two possible versions are the views that testimonial belief fixation may be an inductive inference (Hume 1977, Shogenji 2006), and the view that it is an inference to the best explanation (Grice 1989, Fricker 1994, Schiffer 2003, Malmgren 2006). Further versions are possible, but I have not taken a stand on which of these possibilities is correct<sup>153</sup>. I have argued, however, that *some* version of inferentialism *must be true*, given assumptions about the psychology of comprehension and the epistemic basing relation: testimonial beliefs that *p* must necessarily be based on a belief to the effect that the speaker said that *p*. This conclusion has far-reaching consequences for our theorizing in the epistemology of comprehension and the epistemology of testimony: it suggests inferentialism *as a starting-point* for future theorizing. This conclusion was reached by applying pragmatics to epistemology, which suggests an important methodological point: epistemology must be informed by empirical psychology and the philosophy of language.

But the fundamental import of this thesis is that neither comprehension nor testimony can be foundational sources of justification. All agree that these sources of belief are operationally dependent on other sources (cf. Audi 2002): for instance, one cannot acquire beliefs from them without employing perception – one must *perceive* an utterance in order to comprehend it and through this receive the testimony offered. What I have argued, however, is that these sources are also justificationaly dependent on other sources – they are part of the superstructure rather than the foundation of the architecture of justification. A comprehension state is a belief state that derives its justification from the set of beliefs upon which it is based. A testimonial belief derives its justification from the set of beliefs upon which it is based, which, as I have argued, necessarily includes the comprehension state. These are important insights about distinctively human capacities for rational belief formation.

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<sup>153</sup> There are of course further issues in the epistemology of testimony I have not addressed: the question of how a testimony functions as a reason (though I have suggested that it functions as evidence, there are further options: assurance and trust-based views on which testimony functions as reason-giving in virtue of prudential or moral relations between testifier and hearer (cf. Goldberg forthcoming)), the question of transmission: must the speaker know that *p* in order for the hearer to acquire knowledge that *p* through her testimony?, and the question of whether there is a priori testimony through testimony. Inferentialism has consequences for these questions (cf. Bezuidenhout 1998, who argues that inferentialism is incompatible with a priori knowledge from testimony), but I have not had space to develop them in this thesis.

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