The Semantics of Knowledge Attributions: 
A Defence of Moderate Invariantism

A thesis submitted to The University of Manchester for the degree of 
Doctor of Philosophy in the Faculty of Humanities

2014

Leonid Tarasov

School of Social Sciences
# Contents

Preliminary pages ........................................................................................................... 1

Chapter 1: Introduction: aims, methods and background ............................................. 10

1.1. Aims and scope ........................................................................................................ 10
1.2. Methodology ........................................................................................................... 14
1.3. Background ............................................................................................................. 26
  1.3.1. Some history ...................................................................................................... 26
  1.3.2. The Cone Model of Knowledge .................................................................... 27
  1.3.3. The Relevant Alternatives View ................................................................. 32
  1.3.4. More history ................................................................................................... 36
1.4. A semantic-pragmatic framework ........................................................................... 38
  1.4.1. KS-System ....................................................................................................... 38
  1.4.2. Stalnaker’s model of assertion ...................................................................... 45
1.5. A note on the semantics-pragmatics interface ...................................................... 49

Chapter 2: Attributor Contextualism ............................................................................. 53

2.1. Attributor contextualist semantics ........................................................................ 53
2.2. Motivations for attributor contextualism ............................................................. 57
  2.2.1. Linguistic motivations: Bank Cases A to D .................................................. 57
  2.2.2. Theoretical motivations: Closure and Anti-Scepticism ............................... 60
2.3. Against attributor contextualism ........................................................................... 64
  2.3.1. Linguistic problems: Bank Case E and semantic error ............................... 64
  2.3.2. Theoretical problems: Robust ...................................................................... 77
2.4. Conclusion: the attributor contextualist scorecard ............................................. 82

Chapter 3: Contrastivism ................................................................................................. 84

3.1. Contrastivist semantics ......................................................................................... 84
3.2. Motivations for contrastivism .............................................................................. 90
  3.2.1. Linguistic motivations: contrastive knowledge attributions and focus .... 90
  3.2.2. Theoretical motivations: Role ....................................................................... 92
3.3. Against contrastivism................................................................................. 96
  3.3.1. Linguistic problems: contrastive knowledge attributions and focus ...... 96
  3.3.2. Theoretical problems part I: abilities to answer and discriminate .......... 99
  3.3.3. Theoretical problems part II: a pragmatic account of Role ............... 103
3.4. Conclusion: the contrastivist scorecard.................................................. 108

Chapter 4: Subject-Sensitive Invariantism..................................................... 111
  4.1. Subject-sensitive invariantist semantics.................................................. 111
  4.2. Motivations for subject-sensitive invariantism ......................................... 119
    4.2.1. Linguistic motivations: Bank Cases A, B, E and G ....................... 119
    4.2.2. Theoretical motivations: Action and Assertion ............................... 121
  4.3. Against subject-sensitive invariantism.................................................... 125
    4.3.1. Linguistic problems part I: Bank Cases H and I and semantic error..... 125
    4.3.2. Linguistic problems part II: counterfactuals and semantic error......... 138
    4.3.3. Theoretical problems: Robust, problems with Action and Assertion .... 140
  4.4. Conclusion: the subject-sensitive invariantist scorecard.......................... 152

Chapter 5: Assessor Relativism .................................................................... 154
  5.1. Assessor relativist semantics................................................................... 154
  5.2. Motivations for assessor relativism........................................................ 160
    5.2.1. Linguistic motivations: Bank Cases A to J .................................... 160
    5.2.2. Theoretical motivations: Closure and Anti-Scepticism .................... 164
  5.3. Against assessor relativism .................................................................... 167
    5.3.1. Linguistic problems: Bank Case K and semantic error ..................... 167
    5.3.2. Theoretical problems part I: Relation ............................................ 170
    5.3.3. Theoretical problems part II: Anti-Scepticism revisited .................... 179
  5.4. Conclusion: the assessor relativist scorecard ......................................... 185
  5.5. Postscript: attributor relativism............................................................ 186

Chapter 6: Moderate Invariantism ................................................................. 188
  6.1. Moderate invariantist semantics............................................................ 188
  6.2. Motivations for moderate invariantism.................................................. 190
6.2.1. Linguistic motivations: Bank Cases A, C, E and J ................................. 190
6.2.2. Theoretical motivations: from Anti-Gettier to Role .............................. 191
6.3. Against moderate invariantism ................................................................... 193
   6.3.2. Theoretical problems: Closure and Anti-Scepticism .............................. 194
6.4. In defence of moderate invariantism .............................................................. 198
   6.4.1. A response to linguistic problems part I: WAM-based accounts ......... 198
   6.4.2. A response to linguistic problems part II: Projected Adaptivism ........... 207
   6.4.3. A response to theoretical problems part I: Closure .............................. 213
   6.4.4. A response to theoretical problems part II: Anti-Scepticism ................. 215
6.5. Conclusion: the moderate invariantist scorecard .......................................... 219

Chapter 7: Conclusion ....................................................................................... 221
  7.1. Comparing scorecards .............................................................................. 221
  7.2. Moving forward ....................................................................................... 224

Appendix I: the (main) Bank Cases .................................................................... 226
Appendix II: the theoretical considerations ......................................................... 231

Bibliography ....................................................................................................... 233

Word count: 77,060
List of tables and figures

Table 1: possible relations between felicity intuitions and semantic intuitions 15
Table 2: attributor contextualist scorecard 82
Table 3: contrastivist scorecard 109
Table 4: subject-sensitive invariantist scorecard 152
Table 5: assessor relativist scorecard 185
Table 6: moderate invariantist scorecard 219
Table 7: the scorecards compared 221

Figure 1: the Cone Model of Knowledge 28
Figure 2: attributor contextualist analysis of the syntax and LF of $\Gamma S$ knows that $\Phi \n$ 89
Figure 3: contrastivist analysis of the syntax and LF of $\Gamma S$ knows that $\Phi \n$ 89
Figure 4: the articulated syntax and LF of $\Gamma S$ knows that $\Phi \n$ according to contrastivism 91
Figure 5: case where an epistemic position exceeds a moderately high epistemic standard following Impurism 115
Figure 6: case where an epistemic position fails to meet a moderately high epistemic standard following Impurism 116
Abstract

This work has four aims: (i) to provide an overview of the current debate about the semantics of knowledge attributions, i.e. sentences of the form \( \mathbf{r} \) S knows that \( \Phi \); (ii) to ground the debate in a single semantic-pragmatic framework; (iii) to identify a methodology for describing the semantics of knowledge attributions; (iv) to go some way towards describing the semantics of knowledge attributions in light of this methodology, and in particular to defend moderate invariantist semantics against its main current rivals. Aims (i) and (ii) are largely clarificatory; in §1 I set out a single semantic-pragmatic framework and over the course of this work show that it can be modified to explain and distinguish the various theories of the semantics of knowledge attributions currently on offer. Aim (iii) is also met in §1. I argue that a theory of the semantics of knowledge attributions T must be able to account for at least some ordinary speakers’ intuitions about the felicity or infelicity of utterances of the sentence \( \mathbf{r} \) S knows that \( \Phi \) (felicity intuitions) purely in terms of its semantics. I also identify a number of theoretical considerations about knowledge and argue that if T conflicts with any one of these considerations, we should presume that T is false. Aim (iv) is met over the course of this work. According to moderate invariantism \( \mathbf{r} \) S knows that \( \Phi \) is true if and only if S confidently believes the proposition expressed by \( \Phi \), this proposition is true and S’s epistemic position with respect to this proposition meets a moderately high epistemic standard. In §§2 – 5 I argue that the main current rivals to moderate invariantism – attributor contextualism, contrastivism, subject-sensitive invariantism and assessor relativism – conflict with at least one of the theoretical considerations identified in §1. In §6 I argue that moderate invariantism accounts for some ordinary speakers’ felicity intuitions purely in terms of the semantics of \( \mathbf{r} \) S knows that \( \Phi \); I also argue that it is consistent with all of the theoretical considerations identified in §1. Moreover, in §§2 – 6 I argue that no theory is capable of accounting for all felicity intuitions purely in terms of the semantics of \( \mathbf{r} \) S knows that \( \Phi \), and that only moderate invariantism can successfully explain why speakers have all of these intuitions. In §7 I conclude that moderate invariantism correctly describes of the semantics of knowledge attributions, or at least does so better than its main current rivals.
Declaration and Copyright Statement

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

The author of this thesis (including any appendices and/or schedules to this thesis) owns certain copyright or related rights in it (the “Copyright”) and s/he has given The University of Manchester certain rights to use such Copyright, including for administrative purposes.

Copies of this thesis, either in full or in extracts and whether in hard or electronic copy, may be made only in accordance with the Copyright, Designs and Patents Act 1988 (as amended) and regulations issued under it or, where appropriate, in accordance with licensing agreements which the University has from time to time. This page must form part of any such copies made.

The ownership of certain Copyright, patents, designs, trade marks and other intellectual property (the “Intellectual Property”) and any reproductions of copyright works in the thesis, for example graphs and tables (“Reproductions”), which may be described in this thesis, may not be owned by the author and may be owned by third parties. Such Intellectual Property and Reproductions cannot and must not be made available for use without the prior written permission of the owner(s) of the relevant Intellectual Property and/or Reproductions.

Further information on the conditions under which disclosure, publication and commercialisation of this thesis, the Copyright and any Intellectual Property and/or Reproductions described in it may take place is available in the University IP Policy (see http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=487), in any relevant Thesis restriction declarations deposited in the University Library, The University Library’s regulations (see http://www.manchester.ac.uk/library/aboutus/regulations) and in The University’s policy on Presentation of Theses.
Acknowledgements

This work would not have been possible without Thomas Uebel, my main supervisor, who offered detailed comments, arguments and advice in response to every draft (however long, last-minute or ill-thought-out), and general help and support over the last three years. The work would have been much worse without Julian Dodd and Graham Stevens, my secondary supervisors, who pressed me to spell out my methodology and ensured that I have adequate grounding in the relevant aspects of formal semantics. I have benefitted greatly from comments and discussions with a number of other people from a number of places; thanks to James Andow, Tim Bayne, Sebastian Becker, Helen Beebee, Jessica Brown, Martina Faller, Howard Kelly, Phil Letts, David Liggins, John MacFarlane, Maeve Macpherson, Chris Ovenden, Joel Smith, Jonathan Weinberg, Aaron Wilson and Crispin Wright. Thanks to members of the indexicality reading group and to audiences at the Universities of Aberdeen, Manchester and Vienna. Special thanks to Nathan Duckett, Rob Knowles and especially Jack Holme, who generously gave up their time in arguments and discussions about much of the material in this work.

Some parts of §2.3.2 have appeared in my (2013), ‘Contextualism and Weird Knowledge’, The Philosophical Quarterly, 63/252: 565–75. Thanks to John Greco and an anonymous referee for their comments.

Last but not least, warm thanks to Pamela for her love, support and occasional felicity intuitions.
Chapter 1

Introduction: aims, methods and background

1.1. Aims and scope

This work has four aims: (i) to provide an overview of the current debate about the semantics of knowledge attributions, i.e. sentences of the form $\gamma S$ knows that $\Phi \gamma$, and its historical roots; (ii) to ground the debate in a single semantic-pragmatic framework; (iii) to identify an adequate methodology for describing the semantics of knowledge attributions; and (iv) to go some way towards describing the semantics of knowledge attributions in light of this methodology.

Aims (i) and (ii) are largely clarificatory; I will show that a single semantic-pragmatic framework provides the tools to clearly capture and distinguish the various theories of the semantics of knowledge attributions currently on offer. The framework I will rely on is a modified version of David Kaplan’s (1989) semantics for indexical expressions, which is widely employed in other literature and has seen some use in the knowledge attribution debate already (see e.g. Stanley 2005), together with Robert Stalnaker’s (1999 [1978], Ch. 4) popular model of assertion.

Aim (iii) will be met in part in the next section and in part over the course of this work. That is, in the next section I will identify, explain and justify a methodology for describing the semantics of knowledge. The rest of this work, particularly the exegesis and discussion of some of the views of the semantics of $\gamma S$ knows how to $\Phi \gamma$ (see e.g. Stanley 2011), but it is beyond the scope of this work.

---

$\gamma$ There is an ongoing debate about the semantics of other kinds of knowledge attributions, such as $\gamma S$ knows how to $\Phi \gamma$ (see e.g. Stanley 2011), but it is beyond the scope of this work.
knowledge attributions currently on offer, should lend further support to my methodology.

Aim (iv) is to show that moderate invariantism provides the best description of the semantics of knowledge attributions in light of this methodology. I use ‘variantism’ as a catch-all term for any view according to which the notions of context and contextual change play a role in the semantics of knowledge attributions. I use ‘invariantism’ as a catch-all term for any view according to which the notions of context and contextual change play no role in the semantics of knowledge attributions; at most, they play a pragmatic role in relation to knowledge attributions. Thus, on my view context plays at most a pragmatic role with respect to knowledge attributions.

Throughout this work I will be employing the notion of epistemic standards and the corresponding notion of epistemic positions as placeholders for our best theory of knowledge within a description of the semantics of knowledge attributions. Specifically, epistemic standards can stand in for any necessary or sufficient condition on knowledge other than truth and confident belief, and epistemic positions can stand in for the extent to which a given subject satisfies this condition. For example, suppose we think that a subject S knows some proposition p only if S has a true confident belief that p and reasonably good justification for believing that p. Then we say that the epistemic standard relevant for knowing that p is having reasonably good justification for believing that p, and we say that the epistemic position here is whatever justification S actually has for believing that p. If S has no justification for believing that p, then S is in a poor or weak epistemic position. Conversely, if S has excellent justification for believing that p, then S is in an excellent or strong epistemic position. In light of this, to say that the semantics of

\[\text{roughly speaking, context plays a semantic role with respect to an expression } \phi \text{ only if it affects the semantic value (i.e. something like the contribution to propositional content) of } \phi \text{ or the extension of } \phi.\]

\[\text{Context plays a pragmatic role with respect to } \phi \text{ only if it does not affect the semantic value of } \phi \text{ or the extension of } \phi, \text{ but may affect the information communicated by utterances of } \phi. \text{ The notions of context, semantic value and semantic and pragmatic roles will be made clear in §1.4 and §1.5.}\]

\[\text{For an overview of different analyses of knowledge, see Ichikawa and Steup (2012). For a more detailed explanation of what I mean by epistemic standards and positions, see §1.3.2.}\]
knowledge attributions is characterised by a single moderately high epistemic standard is just to say that a subject needs to be in a moderately good or moderately strong epistemic position in order to know something.

Generally, we will assume that the following schema is true:

**Base Definition:** \( S \text{ knows that } \Phi \text{ if and only if } S \text{ confidently believes the proposition expressed by } \Phi, \text{ the proposition expressed by } \Phi \text{ is true and } S \text{ is an epistemic position with respect to the proposition expressed by } \Phi \text{ which meets or exceeds the relevant epistemic standard.} \)

Although epistemic standards and positions act as placeholders for one’s favoured theory of knowledge, we should not think that we can remain altogether neutral with respect to the nature of knowledge here. For instance, the thought that the semantics of knowledge attributions is characterised by a single moderately high epistemic standard commits us to least one substantive epistemological claim, viz. fallibilism about knowledge. That is, the view that whatever factors constitute one’s epistemic position (cf. §1.3.2) need not entail the truth of the proposition in question. Indeed, as I will explain in the next section, I think it would be a mistake to ignore theoretical considerations about the nature of knowledge in describing the semantics of knowledge attributions. Having said that, for reasons which will become clear shortly (cf. §1.2), I will be adopting only those theoretical considerations which are widely shared. These include fallibilism (see e.g. Zagzebski 1994) and several others.

In addition to substantial questions about the nature and analysis of knowledge, let me set aside a few other issues here. Firstly, although I will be adopting a number of widely shared theoretical considerations about knowledge, I will have relatively little to say about why they are widely shared. This is justified at least in part by my desire to stay as neutral as I can with respect to the nature and analysis of knowledge and in large part by constraints of space. I will also have very little to say about contextualist theories of justification, most notably David Annis’
(1978) pioneering work and Michael Williams’ (1996) diagnosis of scepticism. Annis and Williams are concerned with the nature of justification rather than the semantics of knowledge attributions, so examining their views would take me too far away from the present enquiry. For similar reasons, I will also ignore the larger debate about the semantics-pragmatics interface, but I will say more about my reasons for this in §1.5. Finally, I will ignore some versions of variantism (e.g. Blome-Tillmann 2009a; Schaffer and Szabó 2013). This is partly due to constraints of space and partly because I hope that my discussion will already convince the reader that variantism as a whole does not correctly describe the semantics of knowledge attributions.

This work is structured into seven chapters. In the rest of this chapter I outline, explain and provide part of the justification for my methodology. I also give some historical background for the knowledge attribution debate, outline the overarching semantic-pragmatic framework I will be using here, place the knowledge attribution debate within the context of discussions about the semantics-pragmatics interface and note my reason for avoiding these discussions. In the following four chapters I outline and criticise attributor contextualism, contrastivism, subject-sensitive invariantism and assessor (and attributor) relativism. Attributor contextualism, subject-sensitive invariantism and assessor relativism are the three leading forms of variantism. Contrastivism is less well-known but raises some important issues not brought up by the other approaches. These chapters are each split into four parts: an outline of the semantics of each of the views presented within a general semantic framework explained in §1.4, some linguistic and theoretical motivations for the view, some criticisms and a conclusion. Together, they form the negative part of my argument for moderate invariantism, viz. they show that there are significant problems with variantism as a whole. Chapter 6 contains some positive arguments for moderate invariantism; I outline moderate invariantist semantics, the linguistic and theoretical motivations and concerns and then defend the view against these concerns. In Chapter 7 I compare all the views discussed in this work and conclude that moderate invariantism is the best candidate for the correct description

---

4 For a comparison of Williams’ view with attributor contextualism, see e.g. Pritchard (2002) and Williams (2004).
of the semantics of knowledge attributions, or at least that it is a better candidate than its main variantist rivals. I close by sketching some lines for future research.

1.2. Methodology

Suppose that when I utter some sentence $\Phi$ ordinary speakers generally and some speaker $S$ in particular report that my utterance is felicitous. There are at least four things we could say about this scenario. Firstly, we might suppose that there is a direct connection between ordinary speakers’ intuitions that an utterance of $\Phi$ is felicitous or infelicitous (felicity intuitions collectively) and the semantics of $\Phi$, and between $S$’s felicity intuitions and the semantics of $\Phi$. By direct connection we mean that the proposition expressed by $\Phi$ is true in any situation in which an utterance of $\Phi$ is felicitous and the proposition expressed by $\Phi$ is false in any

---

5 I use ‘utterance’ in the technical sense of spoken or written production of a word or sentence, i.e. a tokening of a word or sentence type. Felicity is a technical notion which lacks a clear definition in the literature. It goes back at least to J. L. Austin (1975 [1955], p. 14), who characterises infelicitous utterances as ‘types of cases in which something goes wrong and the act [performed by the utterance of a sentence] is therefore at least to some extent a failure: the utterance is then, we may say, not indeed false but in general unhappy’ (original emphasis). The modern notion of felicity is wider than Austin’s. If an utterance of a sentence is felicitous, ordinary speakers feel that the utterance complies with the general rules of the language, whether syntactic, semantic or pragmatic. They might use expressions like ‘grammatical’, ‘appropriate’, ‘right’, ‘true’ or just ‘sounds fine’ to describe the utterance. If an utterance of a sentence is infelicitous, ordinary speakers feel that the utterance violates some rule(s) of the language, whether syntactic, semantic or pragmatic. They might use expressions like ‘ungrammatical’, ‘inappropriate’, ‘not right’, ‘false’ or just ‘sounds weird’ to describe the utterance. For instance, an utterance of any of the following sentences would be infelicitous: ‘furiously sleep ideas green colourless’, ‘colourless green ideas sleep furiously’ (Chomsky 2002 [1957], §2.2), ‘It is raining, but I do not believe it’ (Moore 1993, pp. 207-208). Usually, the infelicity of an utterance of the first sentence is traced to violation of syntactic rules, the second to semantic rules and the third to pragmatic rules. The knowledge attribution debate is focused on grammatical sentences only, and the salient questions are whether and which semantic rules explain the felicity or infelicity of an utterance of a knowledge attribution (cf. §1.1; fn. 2).
situation in which an utterance of $\Phi$ is infelicitous. For brevity, let us say that in this case ordinary speakers’ felicity intuitions generally and S’s felicity intuition in particular amount to semantic intuitions. Secondly, we might suppose that ordinary speakers’ felicity intuitions about utterances of $\Phi$ amount to semantic intuitions, but S’s felicity intuitions do not. Thirdly, we might suppose that neither ordinary speakers’ felicity intuitions in general nor S’s felicity intuitions about utterances of $\Phi$ amount to semantic intuitions. And finally, we might suppose that although generally ordinary speakers’ felicity intuitions about utterances of $\Phi$ do not amount to semantic intuitions, S’s felicity intuitions amount to semantic intuitions. These positions, call them 1 to 4 respectively, are represented in Table 1:

Table 1: possible relations between felicity intuitions and semantic intuitions

<table>
<thead>
<tr>
<th>Presumption</th>
<th>Status of presumption</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary speakers’ felicity intuitions about utterances of $\Phi$ amount to semantic intuitions</td>
<td>Position 1</td>
<td>Position 2</td>
<td>Position 3</td>
</tr>
<tr>
<td>Some particular speaker’s felicity intuitions about utterances of $\Phi$ amount to semantic intuitions</td>
<td>Position 1</td>
<td>Position 4</td>
<td></td>
</tr>
</tbody>
</table>

We will ignore any felicity intuitions which might arise due to violation of grammatical rules (cf. fn. 5) and leave it largely moot whether there are any situations in which $\Phi$ is neither true nor false (see e.g. DeRose 2009, pp. 144-48; updated from DeRose 2004b; cf. §2.3.1). In recent years it has been suggested that there are non-truth-conditional dimensions of semantic meaning which may account for certain felicity intuitions (e.g. Potts 2005; Predelli 2013). This suggestion is not (generally) recognised in the current knowledge attribution debate, so we will ignore it here as well (cf. §6.4.1, fn. 135; §7.2).
Generally speaking, descriptive semantics is premised on Position 1, i.e. there is a presumption that all felicity intuitions about utterances of \( \Phi \) amount to semantic intuitions.\(^7,8\) The presumption can be dropped in favour of an error theory, i.e. a claim that ordinary speakers are mistaken about the semantics of \( \Phi \), but this is seen as a cost to the resulting theory of the semantics of \( \Phi \).\(^9\) The cost is partly mitigated if

\(^7\)For example, Position 1 is at work in debates about the semantics of complex demonstratives (e.g. King 2008), indexical expressions (e.g. Predelli 2005) and quantifiers (e.g. Stanley 2000), to name only a few.

\(^8\)An ordinary speaker is presumed to be someone who is fluent in the language under investigation, but not philosophically or linguistically trained. Ordinary speakers’ felicity intuitions are usually determined through empirical work or by reference to the readers’ felicity intuitions (or both). The first method, which is common in linguistics, has at least two issues. Firstly, it is not unusual to rely on very small groups of ordinary speakers, so it is possible that their felicity intuitions are not representative of ordinary speakers’ felicity intuitions more generally. Secondly, even amongst small groups there can be wide variation in felicity intuitions (for example, in his work on attitudes de se Pranav Anand (2007, pp. 3-4) reports a 60 – 40% split in felicity intuitions amongst just 25 speakers). The second method, which is common in philosophy, has issues as well. The most obvious is just that a theorist’s readers will tend to be other theorists, i.e. not philosophically or linguistically untrained speakers, and therefore not ordinary speakers in the relevant sense of the term (see e.g. Alexander and Weinberg 2007). And, in parallel with the first method, a theorist’s readership may be relatively small and may fail to share the same felicity intuitions (see e.g. §6.4.1). Moreover, the justification for thinking that felicity intuitions amount to semantic intuitions is unclear (see e.g. Bach 2005a; 2008). In light of these issues, there are some dissenters from Position 1. For example, Kent Bach (e.g. 2005a; 2008) thinks that something like Position 3 is the correct approach to descriptive semantics; Michael Devitt (2006, pp. 499-500) seems to favour Position 4 at least in cases where the semantic features of \( \Phi \) are directly traceable to the syntactic features of \( \Phi \); and one moral we could draw from variation in felicity intuitions across linguistic communities (see e.g. Culbertson and Gross 2009) is that Position 2 is correct. Exactly how descriptive semantics ought to be done is a difficult question for everyone involved, and I do not pretend to have anything close to a full answer. Instead, I will simply accept all of the felicity intuitions which my opponents report in the relevant cases and a view of the connection between felicity intuitions and semantics which is a compromise between Positions 1 and 3. That way, even if my discussion of the semantics of knowledge attributions is ultimately vulnerable to the sorts of issues discussed above, I am nonetheless on common ground with my opponents. I set out and defend the methodology I have in mind in the main text below.

\(^9\)I think we can distinguish at least two kinds of error theory: one according to which speakers are unaware of the semantics of \( \Phi \), and another according to which speakers are mistaken about the
the theory is paired with a plausible explanation of why ordinary speakers might be mistaken about the semantics of Φ (see e.g. Brown 2005b, pp. 77-78).

My approach to describing the semantics of knowledge attributions is premised on the following assumption:

*Felicity-Alert Theory-Safe Option (FATSO):* A semantic theory T must grant the status of semantic intuition to at least one felicity intuition, and should grant the status of semantic intuitions to as many felicity intuitions as possible. However, if T conflicts with some relevant theoretical consideration, there is a presumption that T is false.

*FATSO* starts from the same premise as Position 1, i.e. that generally speaking all felicity intuitions amount to semantic intuitions. However, following *FATSO*, it is possible to argue that a theory T is the best semantic theory even if T grants the status of semantic intuitions to less felicity intuitions than any of its competitors. For example, suppose we have just two semantic theories: T₁ and T₂. If T₁ grants the status of semantic intuitions to more felicity intuitions than T₂, but T₁ conflicts with some relevant theoretical consideration and T₂ does not, we should pick T₂.

The felicity intuitions I have in mind are elicited in response to utterances of knowledge attributions and denials (knowledge attributions collectively) in various scenarios which are intended to represent common uses of knowledge attributions (cf. fn. 8). They will be introduced over the course of this work, beginning with Keith DeRose’s (2009, pp. 1-2; updated from DeRose 1992) infamous Bank Cases in §2.2.1 and moving on to other important versions of these cases.¹⁰

I take it that a theoretical consideration is relevant only if it is well-supported by argument or generally acknowledged as uncontroversial. For this reason, the theoretical considerations I have in mind here are all widely shared views about semantics of Φ. I discuss the difference in §2.3.1; for the time being we will focus only on the latter kind of error theory.

¹⁰ Appendix I includes a list of all the main Bank Cases I will be discussing in this work. Modifications of these cases and other scenarios will be introduced as and when relevant.
knowledge. One might object that this leaves it open to anyone who finds one or more of the theoretical considerations objectionable to reject my conclusions. True, and unfortunately it is beyond the scope of this work to defend these theoretical considerations in any detail (cf. §7.2). However, given that the theoretical considerations I have in mind here are widely shared, I suspect that, provided the arguments in the next few chapters are sound, my conclusions should be acceptable to most theorists. For example, it is often pointed out that although subject sensitive invariantism can grant the status of semantic intuitions to many of our felicity intuitions (see e.g. Stanley 2005, pp. 114-20), it conflicts with something like Robust (see e.g. DeRose 2009, pp. 194-98; Brown 2014, p. 188; cf. §4.3.3):

Robust: Knowledge is a relatively disciplined, stable or robust phenomenon. It is not a disparately varied, individual-dependent or arbitrary relation or set of relations. In particular, it does not come and go with the arbitrariness and ease of changing an individual’s practical interests.

Of course, in order for this to count as a problem for a theory of the semantics of knowledge attributions, Robust must be a theoretical consideration which is in fact associated with knowledge.11 In addition to Robust, I believe the relevant theoretical considerations include the following (in alphabetical order):12

    Anti-Gettier: If a subject S knows that p then S is not in a Gettier situation with respect to p. S is in a Gettier situation with respect to p if and only if S confidently believes that p on the basis of whatever factors F constitute her epistemic position with respect to p, p is true but F is not connected with the

---
11 If we thought of Robust as a theoretical consideration which ought to be associated with knowledge, then we would be engaged in prescriptive rather than descriptive semantics. This is a legitimate project; for example, the prescriptive understanding of Robust might have a place in Carnap’s (1947, pp. 7-8) method of explication (i.e. ‘the task of making more exact a vague or not quite exact concept used in everyday life […] or rather of replacing it by a newly constructed, more exact concept’). However, it is not the project at work in the knowledge attribution debate.
12 This list is repeated in Appendix II for reference.
truth of \( p \). For example, suppose \( S \) confidently believes the disjunction \( p \) or \( q \) on the basis of a reliable testimony that \( p \) and an inference from \( p \) to the disjunction \( p \) or \( q \). If we now imagine that \( p \) is false but \( q \) is true, we get a situation in which \( S \) confidently believes the disjunction \( p \) or \( q \) on the basis of a normally reliable testimony that \( p \) and an inference from \( p \) to the disjunction of \( p \) or \( q \) but where the testimony is not connected with the truth of the disjunction \( p \) or \( q \) (Gettier 1963, p. 122-23; cf. Zagzebski 1994).\(^\text{13}\)

**Anti-Scepticism:** The conclusions of sceptical arguments, such as that I do not know that I have hands, are false but can be compelling (e.g. Sosa 1999, p. 147).\(^\text{14}\)

**Attitude:** Knowledge of a proposition entails some doxastic attitude towards that proposition, which we will assume to be confident or outright belief (e.g. DeRose 2009, pp. 186-89).\(^\text{15}\)

---

\(^\text{13}\) There is general consensus that a satisfactory theory of the semantics of knowledge attributions needs to respect *Anti-Gettier* at least to some extent (see e.g. Ichikawa and Steup 2012, §3). However, the extent to which it needs to do so is controversial (see e.g. Lycan 2006; cf. Williamson 2000, pp. 27-30). For this reason, we leave the notion of being connected with the truth of a proposition vague. For example, there is a sense of being connected with the truth of \( p \) in which \( F \) entails \( p \). However, as Linda Zagzebski (1994, pp. 72-73) points out, if we stipulate that \( S \) knows that \( p \) on the basis of \( F \) only if \( F \) entails \( p \) we will end up contradicting *Fallibilism* below. My reliance on *Anti-Gettier* will be minimal, so it should not raise any serious concerns.

\(^\text{14}\) Some philosophers would reject *Anti-Scepticism* (see e.g. Davis 2007; Schaffer 2004b; Unger 1975). Unfortunately, it is beyond the scope of this work to give a full treatment and defence of *Anti-Scepticism* (see e.g. Williams 1996; cf. §7.2), nonetheless it is fair to say that it is a dominant position in epistemology (see e.g. Williams 1996, Ch. 1).

\(^\text{15}\) It is highly questionable whether belief does so capture the attitude requirement on knowledge, and I, for one, doubt that it does: Perhaps it can happen that a subject believes a proposition, but isn’t confident enough in her belief to count as knowing it, and so fails to be knower for purely attitudinal reasons’ (DeRose 2009, pp. 186-87). My defence of moderate invariantism in §6.4.2 is closely related to this point.
Closure: Knowledge is closed under known entailment (i.e. if a subject S knows that p and S knows that p entails q, then S knows that q), or complies with some plausible modification of this idea (Hawthorne 2004, pp. 36-46).\(^{16}\)

Factivity: Knowledge of a proposition entails the truth of that proposition (see e.g. DeRose 2009, pp. 13-18).\(^{17}\)

Fallibilism: If a subject knows some proposition p, whatever factors F constitute the subject’s epistemic position with respect to p, F need not entail p (see e.g. Zagzebski 1994).\(^{18}\)

Relation: Seeing, hearing, touching and other ways of perceiving that p entail knowing that p (e.g. Williamson 2000, p. 34).\(^{19}\)

\(^{16}\) Closure is famously rejected by Fred Dretske (1970, p. 1023) and Robert Nozick (1981, p. 206), which I will say more about in §1.3.2 and §1.3.3.

\(^{17}\) To my knowledge, the only philosopher who takes exception to this claim is Allan Hazlett (2010). Hazlett (2010, p. 500) argues that the ordinary language use of knowledge attributions comes apart from the philosophical use, viz. the latter is factive and the former is not. In particular, he contends that a semantics of knowledge attributions which rejects the factivity condition on knowledge grants semantic status to more felicity intuitions than one which does not (Hazlett 2010, pp. 507-11). There are a number of problems with Hazlett’s account (see e.g. Tsohatzidis 2012). For instance, there does not seem to be a clear criterion for differentiating philosophical and ordinary uses of knowledge attributions. And given that the practice in at least some philosophical literature is to cite ordinary uses of knowledge attributions, for example by presenting the Bank Cases, it is not clear how this criterion should be established.

\(^{18}\) Some philosophers take issue with Fallibilism on its own terms (see e.g. Fantl and McGrath 2007, p. 559; Lewis 1996, p. 550; Williamson 2000, pp. 205-207); others might take issue with it is a consequence of thinking that Anti-Scepticism is false (cf. fn. 14). It is beyond the scope of this work to provide a full treatment and defence of Fallibilism; nonetheless, as with the other items on the list, it is fair to say that it is a dominant position in epistemology (cf. §1.3.2).

\(^{19}\) Williamson (2000) is one of the most recent defenders of Relation. However, the idea that perception entails knowledge has a long line of advocates (see e.g. Chisholm 1989, p. 41; Moore 1953, p. 77; Russell 1948, p. 422).
*Role:* Knowledge attributions play certain social roles, such as highlighting good informants about the truth of the proposition embedded under a knowledge attribution (e.g. Craig 1990, pp. 11-17).

*FATSO* raises a number of questions. (i) Why think that felicity intuitions have a role to play in determining the semantics of knowledge attributions? (ii) Why think that theoretical considerations have a role to play? (iii) *FATSO* gives some primacy to theoretical considerations over felicity intuitions, i.e. provided a theory can grant the status of semantic intuition to at least one felicity intuition, we then decide whether or not there is a presumption against the theory by checking if it conflicts with any theoretical considerations. What justifies this? There are also several more practical, but related questions. For example, (iv) what do we do if there is no theory which does not conflict with at least one theoretical consideration? And (v) what do we do if there is more than one theory which does not conflict with any theoretical considerations?

In response to (i), we have already noted that we are engaged in the process of describing the semantics which knowledge attributions actually have. In light of this, it is natural to pay at least some attention to the way in which knowledge attributions are used, i.e. to ordinary speakers’ felicity intuitions (see e.g. DeRose 2009, pp. 66-69). If we do not, we may end up with a semantic theory which is not descriptive (cf. fn. 11). To put it another way, a theory which attempts to describe the semantics of knowledge attributions but which does not grant the status of semantic intuitions to at least some felicity intuitions will seem implausible. This justifies imposing the condition that a semantic theory must grant semantic status to at least one felicity intuition, and should grant semantic status to as many felicity intuitions as possible.

We might think that the project of describing the semantics of knowledge attributions demands something stronger, viz. that a semantic theory must grant the status of semantic intuitions to all felicity intuitions. But this is too strong; as we will see in the following chapters, there is no view of the semantics of knowledge
attributions which can grant the status of semantic intuitions to all felicity intuitions.  

Alternatively, we might favour a middle-ground position between having to grant semantic status to just one felicity intuition and having to grant the status of semantic intuitions to all felicity intuitions. Specifically, we might decide that we ought to rank theories of the semantics of knowledge attributions in terms of how many felicity intuitions are given the status of semantic intuitions, the more the better. Indeed, this often looks like the dominant methodology in the knowledge attribution debate. For example, assessor relativists claim that they have a serious advantage over attributor contextualists because they are able to grant the status of semantic intuitions to more felicity intuitions in the Bank Cases than attributor contextualists (see e.g. MacFarlane 2005c, pp. 204-205; 2014, p. 198; cf. §5.2.1). However, this approach is an over-simplification. For one, it seems obvious that not all Bank Cases are on a par, in the sense that some of them are likely to represent more uses of knowledge attributions than others. For instance, it might turn out that we use knowledge attributions on more occasions which are like Bank Cases A than on occasions like Bank Case B, in which case Bank Case A may represent more uses of knowledge attributions than B. This would imply that not all felicity intuitions we are interested in are on a par. However, short of engaging in corpus linguistics, I do not see an obvious way to rank theories with respect to the number of felicity intuitions which come out as semantic intuitions. Indeed, even if we do engage in corpus linguistics (see e.g. Ludlow 2005, pp. 41-47), the findings may be far from conclusive (see e.g. Stanley 2005, pp. 68-72; cf. Ludlow 2008, p. 104).

Moreover, we have already noted that many participants in the knowledge attribution debate take account of theoretical considerations about knowledge (see e.g. Brown 2014; DeRose 2009, pp. 194-98). This suggests that they are already

---

20 Instead of trying to find a theory of the semantics of knowledge attributions, we might cite the fact that no view of the semantics of knowledge attributions can grant semantic status to all felicity intuitions in support of the conclusion that knowledge attributions do not have a systematic semantics. This is a live option (see e.g. Schiffer 1996, pp. 329-33), but it is unattractive (see e.g. Hawthorne 2004, p. 187; MacFarlane 2005c, p. 216). In particular, it is unclear how to give a compositional semantics for sentences which include ‘know’ (besides knowledge attributions) if we take this route.
employing a methodology which is more complex than simply ranking theories on the basis of how many felicity intuitions are given the status of semantic intuitions. In short, it is natural to give an evidential role to felicity intuitions in the knowledge attribution debate. However, the most we can safely say about this role is that a theory of the semantics of knowledge attributions must grant semantic status to at least one felicity intuition, and should grant semantic status to as many felicity intuitions as possible.

So far we have done enough to answer question (i) and therefore to justify the first clause of *FATSO*, i.e. a semantic theory T must grant the status of semantic intuition to at least one felicity intuition, and should grant the status of semantic intuitions to as many felicity intuitions as possible. We have also gone some way towards answering questions (ii) and (iii) and justifying the second clause of *FATSO*, i.e. if T conflicts with some relevant theoretical consideration, there is a presumption that T is false. That is, one reason why theoretical considerations have a role to play in the semantics of knowledge attributions is simply the fact that they are already in use in the knowledge attribution debate; all we are doing is making them explicit and giving them a clear role within our methodology. Moreover, giving theoretical considerations some primacy over felicity intuitions offers a clearer way to decide between rival theories than attempting to rank felicity intuitions.

There are other considerations which justify *FATSO* in general and the second clause of *FATSO* in particular. Firstly, an approach to descriptive semantics which takes account of both felicity intuitions and theoretical considerations offers a compromise between Positions 1 and 3. For example, compare John MacFarlane’s, Kent Bach’s and Peter Unger’s views. MacFarlane (2005c, pp. 204-205; 2014, pp. 198-200) is fairly clear that he endorses Position 1; his defence of assessor relativism hinges primarily on the claim that assessor relativists are able to grant the status of semantic intuitions to more felicity intuitions than their rivals. In contrast, Bach (2008, pp. 69-72) endorses Position 3; he argues that felicity intuitions could just as easily be tracking features of utterances as features of uttered sentences, so we have no principled reason to regard felicity intuitions as semantic. More generally, Unger (1984) has argued that disputes between variantists (contextualists in his terminology) and invariantists are arbitrary. According to him, variantists enrich their semantics to
account for felicity intuitions purely in terms of the semantics of a sentence (cf. §1.4.1). Conversely, invariantists enrich their pragmatics to account for felicity intuitions in terms of the semantics of a sentence and the proposition(s) pragmatically communicated by utterances of the sentence. However, given that all we can say for sure is that felicity intuitions provide evidence about utterances of a sentence, we have no way to decide between variantism and invariantism (Unger 1984, pp. 6-11).\(^{21}\) Put this way, there is no common ground between MacFarlane’s, Bach’s and Unger’s approaches to descriptive semantics. One advantage of FATSO is that it gives us this common ground. According to FATSO there is a requirement to treat at least one felicity intuition as a semantic intuition and a directive to treat as many felicity intuitions as semantic intuitions as possible, which is friendly to Position 1 and therefore to MacFarlane’s view. At the same time, following FATSO we decide whether or not there is a presumption against a particular theory by taking account of considerations other than felicity intuitions, which is consistent with Bach’s view, and which may resolve what Unger perceives as a stalemate between variantists and invariantists.\(^{22}\)

Secondly, we can cite Bach’s observation in defence of the idea that theoretical considerations have some primacy over felicity intuitions. That is, there is a sense in which theoretical considerations like Robust, Factivity and others are intimately bound up with the semantics of knowledge attributions. More precisely, knowledge attributions pick out or express the knowledge relation, which is in turn associated with theoretical considerations like Robust, Factivity and others. In contrast, in virtue of the fact that felicity intuitions are always elicited in response to

\(^{21}\) Actually, Unger (1984, p. 10) goes further than this: he concludes that it is not just that we cannot decide whether a particular theory of the semantics of a sentence is correct or not, but that there is no fact of the matter about which theory is correct. I ignore this more radical claim here.

\(^{22}\) FATSO might also explain Positions 2 and 4, viz. the reason why some particular speaker’s felicity intuitions about utterances of \(\Phi\) might fail to amount to semantic intuitions while ordinary speakers’ felicity intuitions in general might not (Position 2) is because that speaker is not aware of certain theoretical considerations about knowledge. Alternatively, the reason why some particular speaker’s felicity intuitions about utterances of \(\Phi\) might amount to semantic intuitions while ordinary speakers’ felicity intuitions might not (Position 4) is because that speaker is aware of certain theoretical considerations about knowledge which ordinary speakers in general are unaware of.
an utterance of a sentence rather than the sentence itself, there may be a sense in which felicity intuitions are less intimately bound up with the semantics of knowledge attributions than theoretical considerations.

Finally, there is quite general support for something like FATSO in debates about the nature of semantic meaning and theory. For instance, Brian Weatherson (2003, pp. 8-9), arguing on the basis of David Lewis’ (see e.g. Lewis 1992) theory of meaning, suggests that the correct semantics of knowledge attributions is given by whatever theory strikes the best balance between treating felicity intuitions as semantic intuitions, theoretical consequences, theoretical significance and simplicity. The last two criteria are bound up with Weatherson’s (2003, pp. 10-14) commitment to the idea that a good semantic theory of a predicate φ should assign a natural property to φ. In particular, there is a preference for non-disjunctive properties (e.g. being F) over disjunctive properties (e.g. being F or G). This commitment is controversial (see e.g. Taylor 1993), so I would like to avoid the notions of theoretical significance and simplicity here. 23 Instead, I draw attention to Weatherson’s first two criteria, viz. felicity intuitions and theoretical consequences; these are just the criteria we find at work in FATSO. 24

We now have answers to questions (ii) and (iii) above, and therefore at least some justification for FATSO. However, we are still left with the two practical questions: (iv) what do we do if there is no theory which does not conflict with at least one theoretical consideration, and (v) if there is more than one theory which does not conflict with any theoretical considerations? I do not have good answers to these questions, but I do not think we need to answer them here. In the following four chapters I will argue that all major forms of variantism currently on offer

23 However, at least as far as I can tell, theoretical considerations like Robust support an account of the semantics of knowledge attributions which is friendly to the idea that knowledge is a natural property or relation.

24 More generally still, FATSO bears some similarities to reflective equilibrium (Goodman 1983 [1955], pp. 62-64; Rawls 1999 [1971], pp. 42-45), i.e. the method of achieving consistency amongst one’s intuitions, beliefs, theories or whatever else one takes to be relevant to enquiry. Despite some criticisms (e.g. Kelly and McGrath 2010), reflective equilibrium remains a popular approach both to descriptive and prescriptive enquiry (e.g. Daly and Liggins 2010, pp. 215-16; 2011, p. 336; Walden 2013).
conflict with at least one theoretical consideration, and in the final chapter I will argue that moderate invariantism does not conflict with any theoretical considerations. Therefore, the dialectic does not leave us in a position where there is no theory which does not conflict with at least one theoretical consideration or where there is more than one theory which does not conflict with any theoretical considerations.

To sum up, FATSO and our considerations of questions (i) to (v) leave us with the following methodology: (a) see if a given theory of the semantics of knowledge attributions grants semantic status to felicity intuitions in at least one Bank Case; (b) see if the theory is able to account for any theoretical considerations; (c) check if the theory is unable to grant semantic status to felicity intuitions in any Bank Cases; (d) check if there are any theoretical considerations the theory is not consistent with; (e) if the theory is unable to grant semantic status to at least one felicity intuition, presume the theory is false and move on to the next theory; (f) if there are any theoretical considerations the theory is not consistent with, presume that the theory is false and move on to the next theory; (g) repeat this process until we are left with a theory which grants semantic status to felicity intuitions in at least one Bank Case and which does not conflict with any of the theoretical considerations above. In the following six chapters we will see that once we put the main current forms of variantism and moderate invariantism through this process, it leaves us with moderate invariantism as the remaining option. Therefore, I conclude that moderate invariantism correctly describes the semantics of knowledge attributions, or at least does so better than its main variantist rivals.

1.3. Background

1.3.1. Some history

Cohen (1988, p. 97) popularised the claim that ‘know’ is an indexical expression (cf. §1.3.4, fn. 30), which gradually orientated the debate towards aspects of philosophy of language and formal semantics. DeRose (1992; 1995) made similar claims, but drew explicitly on previous work by Unger (1986) on the Cone Model of Knowledge and Fred Dretske (1970; 1981) and Gail Stine (1976) on the Relevant Alternatives View. Likewise, Lewis (1996) gave centre place to the notion of relevant alternatives in his account.

I will briefly outline Unger’s Cone Model and Dretske’s Relevant Alternatives View here to provide some general historical background for the current knowledge attribution debate. Along the way I will characterise the notions of epistemic standards and epistemic positions, which play a central role throughout this work (cf. §1.1), and offer some additional background for Robust, Fallibilism, Closure and Anti-Scepticism (cf. §1.2; Appendix II). I will start with the Cone Model.

### 1.3.2. The Cone Model of Knowledge

Suppose that someone makes a knowledge attribution to a subject S by uttering \( \text{⌜S knows that } \Phi \text{⌝} \). According to Unger (1986) we can use the Cone Model of Knowledge (hereafter CMK) to plot the relation between S and the proposition expressed by \( \Phi \), to check what that relation amounts to and to decide whether it is sufficient for the truth of \( \text{⌜S knows that } \Phi \text{⌝} \). For our purposes, we can use CMK to illustrate what exactly is meant by the notions of epistemic standards and positions. I will begin by introducing a diagram of CMK, which I will then explain and unpack.

---

25 To the best of my knowledge (cf. Rysiew 2001, p. 482, fn. 9), the claim that ‘know’ might be an indexical is due to Hector-Neri Castañeda (1980). However, it was not until Cohen and DeRose began to popularise the claim that philosophers turned to considerations from philosophy of language, linguistics and formal semantics for many of their arguments (e.g. Stanley 2004; Hawthorne 2004; MacFarlane 2005c; DeRose 2009). As such, I view Cohen’s claim as the start of the current knowledge attribution debate.
in relation to some examples and tie to the notions of epistemic standards and positions.

*Figure 1: the Cone Model of Knowledge*

![Cone Model of Knowledge](image)

**Key:**

- **△** External side of an independent knowledge aspect  ➔ One-way entailment relation
- **△** External side of an interdependent knowledge aspect  ➔ External side of a context profile line
- **●** Internal side of an independent knowledge aspect  ➔ External side of a fact profile line
- **●** Internal side of an interdependent knowledge aspect  ➔ Internal side of a context profile line
- ▲ Independence zone  ➔ Internal side of a fact profile line

**The apex of CMK**

To begin with, let us distinguish two views: that knowledge is closed under entailment, and *Closure*, i.e. that knowledge is closed under known entailment. According to the first view, if S knows that p, and p entails q, then it follows that S knows that q. According to the second view, if S knows that p, and S knows that p
entails q, then S knows that q. The apex of the Cone represents the ideal case of knowledge, which is equivalent to the view that knowledge is closed under entailment and to the rejection of Fallibilism. For instance, if S has ideal knowledge that p, then S knows all the propositions entailed by p. Unger (1986, pp. 128-30) argues that the ideal case of knowledge is (at least humanly) unachievable and we are usually satisfied to be somewhere further down the Cone. Notice that this concession also provides some motivation for Fallibilism, i.e. if the apex of the Cone represents the rejection of Fallibilism, then the concession that we are usually satisfied to be somewhere further down the Cone should provide some justification for Fallibilism.

Knowledge aspects: independent and interdependent, internal and external

Further down the Cone we see multiple knowledge aspects and two profile lines. Roughly speaking, knowledge aspects represent different necessary or sufficient conditions on knowledge (Unger 1986, pp. 130-31). For example, according to a classical account S knows that p only if S is justified in believing that p (see e.g. Chisholm 1989, p. 90). Alternatively, according to sensitivity-based theories of knowledge (see e.g. Nozick 1981, p. 172; DeRose 1995), S knows that p only if S would not believe that p if p were false. Similarly, according to CMK, S knows that p only if S satisfies the relevant aspects of knowledge.

Knowledge aspects come in four varieties: independent, interdependent, internal and external (Unger 1986, pp. 134-41). Interdependent knowledge aspects represent related conditions on knowledge. For example, suppose that S knows that p only if S is justified in believing that p and S’s justification entails the truth of p. On this view truth and justification are related conditions knowledge, so they are represented by interdependent knowledge aspects on CMK. Conversely, independent knowledge aspects represent unrelated conditions on knowledge. For instance, suppose that S knows that p only if S is justified in believing that p and p is true but the truth of p is independent of S’s justification. Then truth and justification are unrelated conditions on knowledge, so they are represented by independent knowledge aspects on CMK (cf. Anti-Gettier; Fallibilism). Independent knowledge
aspects are contained within the independence zone on CMK to ensure they do not overlap with any other aspects.

Internal knowledge aspects represent internalism in epistemology and external knowledge aspects represent externalism. Very roughly, internalists believe that the subject of knowledge that p needs to have some kind of cognitive access to her reasons for believing that p (see e.g. Bonjour 1980). Externalists believe that this need not be the case (see e.g. Goldman 1999). For instance, suppose that S knows that p only if S is justified in believing that p and S believes that she is justified in believing that p. On this view justification is an internalist component of knowledge, so it is represented by an internal aspect of knowledge. Conversely, suppose that S knows that p only if S is justified in believing that p but S need not have any cognitive access to this justification. On this view justification is an externalist component of knowledge, so it is represented by an external aspect of knowledge.

One-way entailment relation

Note the one-way entailment relation from the apex of the Cone to the tip of an independent knowledge aspect. This guarantees that if a subject is in the ideal case of knowledge then she fully satisfies the independent aspect, but not vice versa. That is, it ensures that CMK is consistent with Fallibilism; as we saw above, one can fully satisfy all the aspects of knowledge without being in the ideal case of knowledge.

The profile lines

Finally, the two profile lines tell us which theory of knowledge we are dealing with and whether the subject of a particular knowledge claim satisfies the various aspects of that theory (Unger 1986, pp. 138-41). Specifically, when we draw a context profile line on CMK, we select the knowledge aspects which need to be satisfied in order for a subject to know some proposition. Drawing the context profile line on the outside of CMK selects external knowledge aspects; drawing it on the inside selects internal knowledge aspects. How high up the context profile line is
drawn determines the extent to which the knowledge aspects need to be satisfied in order for a subject to know some proposition. Similarly, when we draw a fact profile line on CMK, we select the knowledge aspects which the subject actually satisfies in a given situation with respect to some proposition. Drawing the fact profile line on the outside of CMK selects external knowledge aspects; drawing it on the inside selects internal knowledge aspects. How high up the fact profile line is drawn tells us the extent to which the subject satisfies the various knowledge aspects with respect to some proposition. If the fact profile line is drawn at the same level or higher than the context profile line, the subject counts as knowing some proposition. If the fact profile line is drawn below the context profile line, the subject counts as not knowing some proposition.

**CMK and the knowledge attribution debate**

Let us suppose that the context profile line always selects at least those aspects of knowledge which correspond to *Attitude* and *Factivity*. If we now add that the notion of epistemic standards introduced in §1.1 corresponds to Unger’s context profile lines and the notion of epistemic positions corresponds to fact profile lines, we can use CMK to visualise what we mean when we say that epistemic standards and positions act as placeholders for a theory of knowledge in the semantics of knowledge attributions. Specifically, to say that \( \square \text{S knows that } \Phi \) is true if and only if \( S \) confidently believes the proposition expressed by \( \Phi \), the proposition expressed by \( \Phi \) is true and \( S \) is an epistemic position with respect to the proposition expressed by \( \Phi \) which meets or exceeds the relevant epistemic standard is just to say that \( \square \text{S knows that } \Phi \) is true if and only if on CMK the relevant context profile selects the knowledge aspects which represent *Attitude, Factivity* and whatever other aspects we think are necessary and sufficient for knowledge, and the fact profile line is drawn at the same level or higher than the fact profile line. For

---

26 See DeRose’s (2009, pp. 13-18) discussion of what he calls the “‘floor” of “know(s)”.

27 This is not quite accurate. There are concerns about the representational status of knowledge attributions according to assessor relativism, which I explain in detail in §5.3.3. One consequence of
example, in Figure 1 the fact profile line is drawn above the context profile line, so Figure 1 represents a subject who knows some proposition.

1.3.3. The Relevant Alternatives View

In the previous section we distinguished two principles: that knowledge is closed under entailment and Closure, i.e. that knowledge is closed under known entailment. The first principle entails that S knows that p only if S knows every proposition entailed by p. We already saw that this condition is too demanding (Unger 1986, pp. 128-30). Indeed, assuming that no one knows every proposition entailed by p, it follows that no one knows that p (Cohen 1988, p. 91). As it turns out, the second principle can lead to a similar conclusion: find a sceptical hypothesis q, such that a proposition p which S would usually take herself to know entails not-q, ensure that S knows that p entails not-q, and convince S, via the strength of the sceptical hypothesis q, that she does not know that p. S should then conclude that she does not know that p (see e.g. Unger 1975, pp. 20-21). Following DeRose (1995, p. 1), we will call this the Argument from Ignorance (AI):

Schema for the Argument from Ignorance

P1. S does not know that not-Ψ.
P2. S knows that if Φ then not-Ψ.
P3. If S does not know that not-Ψ, and S knows that if Φ then not-Ψ, then S does not know that Φ.
C. S does not know that Φ.

AI might lead to a counter-intuitive conclusion, but it is difficult to deny Closure on the strength of this intuition alone; we need independent motivation if we

these worries is that it is not clear how or even whether these positions can be mapped out on CMK using the fact and context profile lines, but this need not detain us here.
want to reject this principle. The discussion of AI and Closure sets the stage for Dretske’s (1970) Relevant Alternatives View (hereafter RAV).

To begin with, Dretske (1970, pp. 1007-1009) distinguishes three categories which some expressions of natural language fall into: fully-penetrating, semi-penetrating and non-penetrating under known entailment. If an expression \( \varphi \) is fully penetrating under known entailment, then if \( S \varphi \)'s \( p \) and \( S \) knows that \( p \) entails \( q \), \( S \varphi \)'s \( q \). If \( \varphi \) is non-penetrating, then even if \( S \varphi \)'s \( p \) and \( S \) knows that \( p \) entails \( q \), it does not follow that \( S \varphi \)'s \( q \). If \( \varphi \) is semi-penetrating, then if \( S \varphi \)'s \( p \) and \( S \) knows that \( p \) entails \( q \), it need not follow that \( S \varphi \)'s \( q \). Given these categories, Closure is equivalent to the claim that ‘know’ is fully penetrating.

According to Dretske (1970, p. 1009) ‘know’ is semi-penetrating. That is, if \( S \) knows that \( p \) and \( S \) knows that \( p \) entails \( q \), it need not follow that \( S \) knows that \( q \). More generally, if \( S \) knows that \( p \) and \( S \) knows that \( p \) entails the set of propositions \( Q \), \( S \) need not know every proposition which is a member of \( Q \). Given that Closure is equivalent to the claim that ‘know’ is fully penetrating, it follows that Dretske rejects Closure.

Dretske (1970, pp. 1017-1021) supports the claim that ‘know’ is semi-penetrating by drawing attention to our allegedly ordinary intuitions about ‘know’ and certain expressions which seem to behave in an analogous fashion to ‘know’, such as ‘explain’ and ‘justify’. In particular, he argues that whenever we take someone to know that \( p \) we do not thereby take that person to be fully cognizant of all the known implications of \( p \); rather, we take many such implications for granted, as assumed or presupposed:

‘For example, in saying that the coffee is boiling I assert that the coffee is boiling, but in asserting this I do not assert that it is coffee which is boiling.’
(Dretske 1970, p. 1014)

Now, the current definition of semi-penetrating expressions leaves it open that all semi-penetrating expressions are in fact non-penetrating. In particular, we just saw that according to the current definition, if \( S \) knows that \( p \) and \( S \) knows that \( p \) entails the set of propositions \( Q \), \( S \) need not know every proposition which is a
This is consistent with the possibility that S does not know any of the propositions which are members of Q. Indeed, it is consistent with the possibility that S holds every proposition which is a member of Q presupposed. Even if we agree that Closure is false, this consequence is difficult to accept. In particular, it should not be as easy to come to know a given proposition as it is to presuppose every logical consequence of that proposition. In order to block this consequence, Dretske suggests that we pair the category of semi-penetrating expressions with the notion of relevant alternatives. A relevant alternative is defined as ‘an alternative that might have been realized in the existing circumstances if the actual state of affairs had not materialised’ (Dretske 1970, p. 1021). For instance, if the proposition p represents the actual state of affairs, and the proposition q represents a non-actual state of affairs, q is a relevant alternative to p only if p entails not-q and q entails not-p. If q is a relevant alternative to p, then one will need to be able to rule out q, i.e. to be able to establish that not-q, in order to know that p. More precisely, we can amend our definition of semi-penetrating expressions as follows: if ϕ is semi-penetrating, then if S ϕ’s p and S knows that p entails not-q, S ϕ’s not-q if and only if q is a relevant alternative to p. Thus, if S knows that p and S knows that p entails not-q, S knows that not-q if and only if q is a relevant alternative to p. More generally, if S knows that p and S knows that p entails the set of propositions Q, S knows every proposition which is a member of the set R, where R is a proper subset of Q and the set of relevant alternatives to p.

This saves the distinction between semi-penetrating and non-penetrating expressions. More importantly, it rules out the idea that it is as easy to come to know a particular proposition as it is to presuppose every logical consequence of that proposition. At the same time, it gives us a neat solution to the sceptical worry posed by AI: P3 needs to be reformulated to include reference to relevant alternatives, viz. if S does not know that not-Ψ, and S knows that Φ entails not-Ψ, and Ψ is a relevant alternative to Φ, then S does not know that Φ \( \neg \) (Dretske 1970, p. 1023).

However, Dretske’s RAV faces at least two significant problems. Firstly, it is very difficult to specify the necessary and sufficient conditions for relevance. For example, above we saw that q is a relevant alternative to p only if p entails not-q and q entails not-p. On one hand, we would be hard-pressed to say that q is a relevant
alternative to p if and only if p entails not-q and q entails not-p: far too many propositions satisfy this condition. Indeed, any well-chosen sceptical hypothesis satisfies this condition. On the other hand, it is difficult to see what more nuanced necessary and sufficient conditions for relevance might look like. In particular, in later work Dretske (1981) suggests a number of factors which might affect whether a particular proposition counts as relevant or not, such as focus phenomena (Dretske 1981, p. 59), but he is unable to give anything like a systematic account of these factors (cf. Lewis 1979b; 1996).

More importantly, even in the face of apparent counter-evidence, Closure has proven very difficult to give up (see e.g. DeRose 1995, p. 39; Hawthorne 2004, pp. 36-46). As a consequence, Dretske’s claim that ‘know’ is a semi-penetrating expression has proven equally difficult to accept. To make Dretske’s claim more palatable, Gail Stine (1976, p. 256) suggests that we build the notion of relevant alternatives into the principle that knowledge is closed under known entailment. That is, rather than say that if S knows that p and S knows that p entails the set of propositions Q, then S knows every propositions which is a member of Q, we should say that if S knows that p, and S knows that p entails the set of relevant alternatives R, then S knows every proposition which is a member of R. Since it is part and parcel of Dretske’s account that if S knows that p and S knows that p entails the set of relevant alternatives R, then S knows every proposition which is a member of R, Stine’s proposal offers a way to reconcile his account with the principle that knowledge is closed under known entailment.

Of course, we still need to explain how the membership of R gets determined on a given occasion. Stine (1976, pp. 255-56) suggests that this is done by pragmatic presupposition. According to a popular account (Stalnaker 1999 [1978], p. 84), a

---

28 Suppose we are considering whether Larry knows that someone stole something belonging to him, and I utter ‘Larry knows that Jeff stole his laptop’ (stress on ‘Jeff’). ‘Jeff’ is the focus here, and Dretske’s suggestion is that the truth of my utterance should be evaluated relative to a set of people other than Jeff. Now suppose I utter ‘Larry knows that Jeff stole his laptop’ (stress on ‘laptop’). ‘Laptop’ is the focus here, and Dretske’s suggestion is that the truth of my utterance should be evaluated relative to a set of objects other than the laptop (cf. §3.2.1).

29 Dretske (1970, p. 1021, fn. 6; 1981, p. 56) is aware of this problem, but confesses that he is unable to give a fully satisfactory reply to it.
proposition is pragmatically presupposed when a speaker engaged in a conversation assumes that it is true. As Stine (1976, p. 255) puts it, ‘it is the speaker, not the sentence (or proposition) itself, who does the presupposing’. Speakers are free to presuppose whatever propositions they feel will aid the conversation they are engaged in (Stalnaker 1999, p. 84), so it follows that speakers are free to presuppose that some set of propositions R is the set of relevant alternatives to p if they feel that this will aid the conversation they are engaged in (cf. §1.4.2).

Stine’ proposal is an improvement over Dretske’s account, but it faces some equally worrying consequences. For instance, since pragmatic presupposition effectively allows speakers to presuppose any propositions they like, speakers could presuppose that there are no relevant alternatives to a given proposition. As we saw above, this would entail that they know that proposition. However, we also noted that it should not be as easy to come to know a given proposition as it is to presuppose every logical consequence of that proposition (cf. Dretske 1981, p. 63). For this reason and others (see e.g. Cohen 1988, pp. 98-101), both Dretske’s and Stine’s proposals tend to be rejected in the current literature (see e.g. Stanley 2005, pp. 20-21).

Nonetheless, Dretske’s suggestion that a subject S need only know some subset of propositions entailed by p in order to know that p, and Stine’s argument that this subset can change from speaker to speaker had a very significant influence on the current knowledge attribution debate. As we will see, these or related ideas play a central role in all variantist approaches to the semantics of knowledge attributions.

1.3.4. More history

We have examined two influential predecessors to the current knowledge attribution debate, viz. the Cone Model of Knowledge and the Relevant Alternatives View. Neither view was developed with serious attention paid to philosophy of language or formal semantics. As we noted in §1.3.1, this attitude began to change after Cohen (1988, p. 97) popularised the claim that ‘know’ is an indexical
expression. By this time, detailed analyses of indexicals, and context-sensitive expressions more generally,\footnote{The difference between the labels ‘indexical’ and ‘context-sensitive’ is not, or not only, terminological. David Kaplan’s (1989, pp. 489-90) list of indexicals includes ‘I’, ‘here’, ‘now’, ‘today’, ‘tomorrow’, ‘you’, ‘he’, ‘she’, ‘this’, ‘that’ and several others. It is generally agreed that all these expressions have context-sensitive characters (for a definition of character see §1.4.1). However, there is a further question as to whether any other expressions have context-sensitive characters and, if they do, whether they exhibit the same behaviour as those on Kaplan’s list of indexicals (see §1.5). As a result, it is often the case that ‘context-sensitive’ is used to refer to any expression with an allegedly context-sensitive character, and ‘indexical’ to refer only to those expressions with a context-sensitive character which appear on Kaplan’s list (see e.g. Hawthorne 2006). In other words, all indexicals are context-sensitive expressions, but not all context-sensitive expressions are indexicals. We will follow this convention here.} were in circulation (see e.g. Kamp 1971; Kaplan 1977; Lewis 1970; Perry 1979), so it was only natural that Cohen’s claim would be scrutinised, developed or rejected at least partly in light of these analyses. Given this history, as well as the current state of the knowledge attribution debate, it will be useful to do two things here. Firstly, I will provide a barebones semantic framework for this work, one abstracted from natural language and from any specific theory of the semantics of knowledge attributions. David Kaplan’s (1989) analysis of indexicals has proven the most enduring, and it is now widely regarded as the reference-point for any account of context-sensitivity. The barebones framework I have in mind is an abstraction from Kaplan’s view, so we will call it Kaplan-Style-System, KS-System, or just a system for short.\footnote{This label, as well as a great deal of what I have to say in the next section, are borrowed from Stefano Predelli (2005).} As I present it here, KS-System bears little relation to natural language. As I go through this work, I will modify KS-System to relate it to natural language in line with the various views of the semantics of knowledge attributions under discussion.
1.4. A semantic-pragmatic framework

1.4.1. KS-System

When considering the structure and limits of a formal system for semantic interpretation, at least the following four factors need to be taken into account: the input of the system, the objects the system assigns to the input, the output of the system and the relation between the system and natural language. Our concern in this section will be the characterisation of the first three factors within KS-System. We will cash out various ways of relating KS-System to natural language as we go through this work.

To begin with, let me distinguish two notions of context: what we will call pre-semantic and semantic (cf. Perry 1998, pp. 2-11). Pre-semantic contexts play a role in disambiguating the syntactic structure and lexical meaning of a given sentence or expression. For example, consider sentences (1) and (2):

(1) Someone hit someone with an umbrella.

(2) Larry went to a bank.

Sentence (1) is structurally ambiguous between at least two readings: someone used an umbrella to hit someone else; someone hit someone else and the latter was carrying an umbrella. Sentence (2) is lexically ambiguous between at least a reading according to which Larry went to a river bank and another reading according to which he went to a commercial bank. More precisely, we can analyse (1) and (2) as:

(1.1) (\exists x) (\exists y) ((x hit y using an umbrella) \land (x \neq y)).

(1.2) (\exists x) (\exists y) (((x hit y) \land (y carried an umbrella)) \land (x \neq y)).

(2.1) (\exists x) ((x is a bank_1) \land (Larry went to x)).

(2.2) (\exists x) ((x is a bank_2) \land (Larry went to x)).
The role of a pre-semantic context is to determine which of these disambiguated versions of (1) and (2) we are interested in. For example, suppose ‘bank1’ denotes a commercial bank, and we are having a conversation about depositing cheques. Then our pre-semantic context is such that if I utter (2), we will understand it as (2.1). More generally, the role of pre-semantic contexts is to disambiguate sentences structurally and lexically.

Unlike pre-semantic contexts, semantic contexts are understood as sequences of individuals i, times t, locations l, possible worlds w and any other suitable parameters n: <i, t, l, w, n> (Kaplan 1989, p. 543). The purpose of a semantic context is to provide a domain for the assignment of what we will call a semantic value to an expression or a sentence. I will say much more about this shortly.

Following Kaplan (e.g. 1989, p. 501), we will take the input of KS-System to be pairs of disambiguated sentences and semantic contexts. As we can see above, disambiguated sentences include elements which are not part of natural language, like the existential quantifier, variables, brackets and so forth. Nonetheless, it would be wrong to conclude that disambiguated sentences are altogether divorced from natural language. For example, if we input (1.1), (1.2), (2.1) or (2.2) into KS-System, the ordinary linguistic meanings of the predicates ‘hit’, ‘umbrella’, ‘carried’, ‘went’ and the disambiguated meanings of ‘bank’ will be fed into our system as their proper parts. That is, since (1.1) through (2.2) include the linguistic meanings of the predicates in question, and (1.1) through (2.2) are the inputs of our system, the linguistic meanings of the predicates in question will be the inputs of our system.32

By the ordinary linguistic meanings of the predicates in question I simply mean the conventions for their use (Kaplan 1989, p. 505). For instance, the convention associated with the use of ‘umbrella’ is something like ‘apply “umbrella” only to devices consisting of a canopy mounted on a frame used for protection against rain, sun or wind’. However, put this way, linguistic meanings are no more suitable for input into our system than the sentence ‘someone hit someone with an

---

32 In other words, we assume that some very general notion of bottom-up compositionality is true, viz. the meaning of a sentence is a function of the meanings of its constituents (see e.g. Pagin and Westerståhl 2010).
umbrella’. Instead, we will follow Kaplan (1989, pp. 505-506) and equate linguistic meanings with what he calls fixed and context-sensitive characters, which he defines respectively as constant and non-constant functions from semantic contexts to semantic values. Before we can say more about this, we need to return to the notion of semantic value.

Semantic values, or contents in Kaplan’s (1989, p. 500) terminology, are the entities assigned to an expression or sentence by KS-System given a disambiguated sentence-semantic context pair as input. The term ‘semantic value’ is supposed to be neutral with respect to the kinds of entities a system of semantic interpretation assigns to expressions and sentences (see e.g. Hale and Wright 1997, p. 684). However, I take it that most readers have some familiarity with the notion of a proposition; for example, as the object of a belief or as something which determines a truth-value (see e.g. McGrath 2012). Therefore, for ease of exposition we will generally assume that the semantic value of a sentence is a proposition, and the semantic values of the constituents of a sentence are the contributions those constituents make to the proposition expressed by the sentence. For the purposes of KS-System, we will assume that semantic values are functions from what Kaplan (1989, p. 501) calls circumstances of evaluation to extensions.

Circumstances of evaluation are sequences of parameters against which the inputs of our system are evaluated to generate the outputs. Equivalently, given that our system processes inputs to generate semantic values, we can say that semantic values determine outputs with respect to circumstances of evaluation. The outputs of our system are extensions: the values True and False at the level of sentences, and individuals, properties and relations at the level of sentential constituents. We will characterise circumstances of evaluation as ordered pairs of possible worlds and any other suitable parameters m: <w, m> (cf. Kaplan 1989, p. 502). These parameters may be shifted by so-called intensional operators. For example, the natural language

---

33 There is a large debate about whether propositions exist and what features they have if they do (see e.g. McGrath 2012). As long as we are explicit that we are doing so only for ease of exposition, I do not see any harm in equating semantic values with propositions and contributions to propositions. In particular, this need not carry a substantive metaphysical commitment to the existence or to particular features of propositions (cf. fn. 35).
expression ‘necessarily’ is analysed as the intensional operator ‘□’, which shifts the worlds parameter w of the circumstances of evaluation to all possible worlds (cf. §5.3.2). Correspondingly, the natural language expression ‘possibly’ is analysed as the operator ‘◊’, which shifts the worlds parameter of the circumstances to a possible world (Kaplan 1989, pp. 502-504; cf. Carnap 1947, p. 174).

Two further remarks about semantic values need to be made at this stage. Firstly, Kaplan (1989, p. 493, fn. 17) is explicit that equivocating between propositions and functions as the semantic values of sentences is not harmless. For instance, it is well-known that functions may be more coarse-grained than propositions, i.e. one might find two distinct propositions corresponding to a single function. Therefore, in sliding between talk of propositions and talk of functions as the semantic values of sentences we may lose sight of the finer aspects of semantic interpretation (see e.g. Richard 1990). I am not concerned with these issues here. The assumption that propositions are the semantic values of sentences should give us some understanding of the sort of role semantic values have in KS-System, while the assumption that functions are the semantic values of sentences gives us a straightforward formal apparatus to work with. As such, we will continue to switch between talk of propositions and talk of functions as it suits us.  

Secondly, even independently of the issues raised in the previous paragraph, KS-System may assign non-propositional objects to sentences as their semantic values. According to the orthodox view, a single proposition determines a single truth-value (Frege 1997 [1892], pp. 157-58). Strictly speaking, one might think that any theory which allows the truth-values of propositions to vary across possible worlds is at odds with this view (since it allows a single proposition to determine different truth-values). However, the standard attitude is that the notion of truth at a possible world is compatible with the orthodox view; given a disambiguated sentence-semantic context pair as an input, and a possible world as a circumstance of evaluation, our system yields a single truth-value as an output (see e.g. Stanley 2005,

---

34 Kaplan (1989, pp. 493-97) explicitly allows himself to equivocate between talk of propositions and talk of functions for just these kinds of reasons. In this respect, he seems to be following Carnap, who introduced his notion of intensions both by reference to the rules of a formal language (Carnap 1947, p. 23) and by identifying the intensions of sentences with propositions (Carnap 1947, p. 27).
pp. 132-33; cf. Carnap 1947, p. 27). The complication is that we have allowed any other parameter \( m \) to be added to circumstances of evaluation if needed, and it is difficult to imagine that a truth-value fixed at a world and a value of \( m \) could be acceptable to proponents of the classic view (see e.g. Cappelen and Hawthorne 2009, pp. 7-10). For instance, Kaplan (1989, p. 502) believes that circumstances are pairs of times and worlds, but notes that ‘the truth of a proposition is not usually thought of as dependent on a time as well as a possible world’ (Kaplan 1989, p. 546). In short, depending on how we choose to enrich KS-System, it may end up assigning non-propositional entities as semantic values to sentences. This point will become very important in Chapter 5. However, for the time being we will carry on talking of propositions or functions as the semantic values of sentences.\(^{35}\)

We can now return to the distinction between fixed and context-sensitive characters. Recall that the character of an expression will be fed into our system as a proper part of the input, viz. a disambiguated sentence-semantic context pair. Recall as well that characters are defined as either constant or non-constant functions from semantic contexts to semantic values. Constant functions have invariant values; non-constant functions variant values. For example, \( f: x \to 2 \) is a constant function from any value of \( x \) to 2 and \( f: x \to x^2 \) is a non-constant function from any value of \( x \) to the square of \( x \). Analogously, a fixed character is a constant function from any semantic context to a single semantic value and a context-sensitive character is a

---

\(^{35}\) John MacFarlane (2014, pp. 49-52, pp. 81-88) argues that there is no principled difference between the relativisation of the truth of sentences and propositions to worlds and to other parameters. In light of this, he suggests that there is no principled reason to think that a sentence cannot express a proposition even if its truth-value varies with respect to parameters in addition to worlds. This may be right, but there is nonetheless a salient difference between the semantic values of a sentence the truth-value of which varies with respect to the worlds parameter only and a sentence the truth-value of which varies with respect to parameters in addition to worlds, viz. the latter is in an obvious sense more ‘shifty’ than the former (cf. §5.1). Because of this, I prefer to make a distinction between propositions and non-propositional entities. However, given that nothing hangs on our commitment to propositions here (cf. fn. 33), we could just as easily opt for alternative terminology (cf. §5.1, fn. 105).
non-constant function from different semantic contexts to different semantic values.36

Two examples should help us fix the idea here. Take the name ‘Kripke’ (disambiguated to differentiate between different people named Kripke) and assume that it refers to the same individual in all semantic contexts, viz. the individual Kripke.37 Then ‘Kripke’ has a fixed character and therefore the same semantic value in all semantic contexts. Now take the indexical expression ‘I’, which refers to different individuals in different semantic contexts, viz. different speakers.38 Then ‘I’ has a context-sensitive character and therefore different semantic values in different semantic contexts. It is worth emphasising that the individual which is the output of our system here is a member of the semantic context which is the input. The role of a semantic context is to supply the domain for an expression with a context-sensitive character. For instance, when we feed ‘I’ into KS-system as part of a disambiguated sentence-semantic context pair, the character of ‘I’ tells our system to search the semantic context for the relevant parameter, i.e. to search the sequence \(<i, t, l, w, n>\) for the individual parameter i, and deliver the value of that parameter as the semantic value of ‘I’. We will say that an expression is associated with a semantic context parameter when that expression has a context-sensitive character which tells our system to search semantic contexts for that parameter and to deliver the values of the parameter as the semantic value of the expression. For instance, we will say that ‘I’ is associated with the semantic context parameter i.

The overall picture of semantic interpretation according to KS-System can be summarised as follows:

36 Specifically, a context-sensitive character is a non-constant function from different semantic contexts to different semantic values which is dependent on the relevant parameter of the semantic context. I will say more about this shortly.

37 We will follow Kaplan (1989, p. 492), who follows Kripke (1981, p. 48), in treating names as rigid designators. A rigid designator is a term which picks out the same individual in all possible worlds in which that individual exists and nothing in any possible worlds in which that individual does not exist (cf. Kaplan 1989, pp. 492-94, fn. 16).

38 There is a large and ongoing debate about what exactly ‘I’ and other expressions can refer to (e.g. Predelli 2005; cf. Stevens 2009), but it need not detain us.
(i) The system takes a disambiguated sentence \( \Phi \) and a semantic context \( c \) (i.e. a sequence \(<i, t, l, w, n>\)) as an input.

(ii) The system looks at the characters of the constituents of \( \Phi \). Constituents with fixed characters are assigned semantic values as a constant function of \( c \). Constituents with context-sensitive characters are assigned semantic values as a non-constant function of whichever parameters of \( c \) they are associated with.

(iii) The system combines the semantic values of the constituents of \( \Phi \) and assigns a semantic value to \( \Phi \).

(iv) The semantic value of \( \Phi \) determines the output of the system – the truth-value True or False – with respect to a circumstance of evaluation \(<w, m>\).

We should now see that within KS-System sentence truth is a relation between sentences, semantic contexts and circumstances of evaluation. Specifically, we should see that a sentence \( \Phi \) is true if and only if the extension of \( \Phi \) at a semantic context and a circumstance of evaluation is the truth-value True. More formally, and in the interests of space, we can use \( \llbracket \Phi \rrbracket_{<w,m>}^{<i,t,l,w,n>} \) to denote the extension of \( \Phi \) at a context \(<i, t, l, w, n>\) and a circumstance of evaluation \(<w, m>\). Accordingly, we can say that \( \Phi \) is true if and only if \( \llbracket \Phi \rrbracket_{<w,m>}^{<i,t,l,w,n>} = \text{True} \) and \( \Phi \) is false if and only if \( \llbracket \Phi \rrbracket_{<w,m>}^{<i,t,l,w,n>} = \text{False} \). And we can replace Base Definition from §1.1 with Base Definition*:

*Base Definition*: \( \llbracket \text{S knows that } \Phi \rrbracket_{<w,m>}^{<i,t,l,w,n>} = \text{True} \) if and only if at a semantic context \(<i, t, l, w, n>\) and a circumstance of evaluation \(<w, m>\) S confidently believes the proposition expressed by \( \Phi \), the proposition expressed by \( \Phi \) is true and S’s epistemic position with respect to the proposition expressed by \( \Phi \) meets the relevant epistemic standard.
This forms the bare-bones KS-System which we will work with in the remaining chapters. Left as it is however, the system is of little interest to our aims. In particular, conditions (i) to (iv) do not tell us anything about which semantic context, world or any other parameter is relevant to the interpretation of a sentence on an occasion of utterance. Similarly, Base Definition* does not tell us a great deal about the semantics of knowledge attributions. Following the arguments in §1.2, given a sentence of the form $\sigma S$ knows that $\Phi \square$ as the input of our system, in general we will want to pick a semantic context and a circumstance of evaluation which will generate the truth-value True for a felicitous utterance of this sentence and the truth-value False for an infelicitous utterance of the sentence.\(^{39}\) However, as we will see in the rest of this work, there are several ways one can do this and none of them can generate the truth-value True for all felicitous utterances of $\sigma S$ knows that $\Phi \square$ or the truth-value False for all infelicitous utterances of $\sigma S$ knows that $\Phi \square$.

1.4.2. Stalnaker’s model of assertion

In the previous section we defined a bare-bones semantic framework – KS-System – which will ground all the views under discussion in this work. We also characterised two notions of context, viz. pre-semantic and semantic contexts. We said that pre-semantic contexts play a part in determining the inputs of KS-System and semantic contexts play a role in fixing semantic values within KS-System. For the time being, let us stipulate that this exhausts the role of context with respect to the semantics of a given expression or sentence (cf. §1.5; §5.1). However, it does not exhaust the role of context with the respect to the interpretation of utterances of sentences. We will distinguish and characterise a third notion of contexts, viz. pragmatic contexts (see e.g. Perry 1998, pp. 2-11).

To begin with, let us say that a conversation is a set of utterances made by speakers. An utterance is a spoken or written inscription of a word or sentence, i.e. a

\(^{39}\) The qualification ‘in general’ is important; as we noted in §1.2, while it is usually agreed that a semantic theory ought to grant the status of semantic intuitions to felicity intuitions, at least some felicity intuitions may need to be explained away as mistaken.
tokening of a word or sentence type, which performs an act (cf. §1.2, fn. 5). For example, an utterance of the sentence ‘Would you kindly?’ may perform the act of requesting or commanding the interlocutor to do something; an utterance of the sentence ‘Prepare for unforeseen consequences’ may perform the act of warning the interlocutor; and so on (cf. Austin 1975). In general, we will not be concerned with the various acts utterances of different kinds of sentences might be used to perform. Instead, given that knowledge attributions are declarative sentences usually used to perform the act of assertion, i.e. the act of stating that something is the case, we will focus on declarative sentences used to perform the act of assertion (cf. Weiner 2005, pp. 228-29; Williamson 2000, p. 258). Accordingly, we will restrict our attention to conversations which are characterised by sets of utterances of declarative sentences used to perform the act of assertion. We can then characterise pragmatic contexts in terms of Robert Stalnaker’s (1999 [1978], Ch. 4) popular model of assertion.

According to Stalnaker (1999, p. 84), given a conversation with two or more participants, each participant will have a set of propositions which she takes for granted, i.e. presupposes to be true. I will be combining two notions of presupposition here, one due to Peter Strawson (1950) and the other to Stalnaker (1999). To see the difference, consider sentence (1):

(1) The present King of France is bald.

Strawson (1950, pp. 329-31) claims that (1) expresses the proposition that the present King of France is bald, which presupposes that there is a present King of France. As a result, we might think that any speaker who asserts (1) will presuppose that there is a present King of France as well. In contrast, Stalnaker (1999, p. 84) is explicit that participants are free to presuppose any proposition they find convenient for the purposes of the conversation. Strictly speaking, this means they are free to presuppose nothing at all (cf. §1.3.3), including that there is a present King of France when they assert (1). However, I will assume that at the very least someone who asserts (1) will presuppose that there is a present King of France. Stalnaker notes that
‘A proposition is presupposed if the speaker is disposed to act as if he assumes or believes that the proposition is true, and as if he assumes or believes that his audience assumes or believes that it is true as well.’

(Stalnaker 1999, p. 84)

As we will see shortly, the purpose of asserting a sentence is to add the proposition expressed by the sentence to the conversational participants’ presuppositions. Consequently, the ultimate purpose of asserting a sentence is to dispose the conversational participants to act as if they assume or believe that the proposition expressed by the sentence is true. It is very hard to imagine what it would be like for someone to be disposed to act as if they assumed or believed that the proposition that the present King of France is bald were true without assuming or believing the proposition that there is a present King of France. So I take it that someone who asserts ‘The present King of France is bald’ will presuppose that there is a present King of France. Quite generally then, I will assume that if one asserts a sentence $\Phi$ which expresses a proposition $q$, and $q$ presupposes another proposition $p$ according to the Strawsonian account, then one will presuppose $p$ according to Stalnaker’s account. For clarity, we will refer to propositions like $p$ as background propositions, and to propositions like $q$ as live propositions.

For each set of background propositions, there will also be a context set, or the set of possible worlds compatible with the truth of the background propositions. Stalnaker (1999, p. 85) notes that ‘each participant in a conversation has his own context set, but it is part of the concept of presupposition that a speaker assumes that the members of his audience presuppose everything that he presupposes’. That is, a conversational participant usually assumes that her background propositions are part of the common ground of the conversation, and therefore that her context set overlaps with the contexts sets of all the other participants in the conversation. Generally, this assumption will bear out; there will be at least some overlap in the context sets of the participants in a given conversation. When the overlap is not complete, it may still be adequate for the purposes of the conversation, such that any discrepancies between the context sets will go unnoticed by the conversational participants. When such discrepancies are noticed, or when there is no overlap
between the participants’ context sets at all, there will be a fault in communication, and the participants will usually attempt to adjust their context sets in line with each other to fix this (Stalnaker 1999, pp. 85-86).

Given all this, Stalnaker (1999, p. 86) holds that the function of assertion is to reduce the conversational participants’ context sets. That is, assuming that an assertion is not rejected by the other participants in the conversation, its function is to add the proposition expressed by the asserted sentence – the live proposition – to the participants’ background propositions and thus to decrease the number of possible worlds compatible with the participants’ background propositions. By extension, the idealised purpose of assertion is to identify the actual world amongst the participants’ context sets.

We will identify pragmatic contexts with Stalnaker’s notion of common ground. Specifically, we will say that those propositions which are shared by the participants in a given conversation constitute the pragmatic context for that conversation. This works well with other well-known pragmatic models. For example, according to Grice (1989), when a speaker asserts a sentence, she may communicate propositions in addition to the proposition literally expressed by the sentence. This process is controlled by an overarching Cooperative Principle (Grice 1989, p. 26), which is understood in terms of the maxims of Quantity (provide the appropriate quantity of information), Quality (try to make your contribution one that is true), Relation (be relevant) and Manner (be perspicuous), and various sub-maxims (Grice 1989, pp. 26-28). For instance, imagine the following conversation (Grice 1989, p. 32):

Larry: We are out of petrol.
Cheryl: There is a garage around the corner.

Grice (1989, p. 32) argues that in this case Cheryl violates the Relevance maxim by uttering a sentence which expresses a semantic value which is consistent with there being a closed garage around the corner. There is a general presumption against violating the maxims (Grice 1989, p. 30), so, in order to bring Cheryl’s utterance in compliance with the maxims, it is understood to communicate not only
the proposition that there is a garage around the corner – the semantic value of the sentence ‘There is a garage around the corner – but also the proposition that there is an open garage around the corner.

Our notion of pragmatic contexts provides a more complete account of what happens here. When Larry utters ‘We are out of petrol’ he adds at least the semantic value of ‘We are out of petrol’, viz. the proposition that Larry and Cheryl are out of petrol, to his and Cheryl’s common ground and therefore alters their pragmatic context. Presumably, Larry and Cheryl’s common ground and therefore their pragmatic context also contain the propositions that they need to get to some location and that they cannot do so without petrol. Given this, it must be part of Larry and Cheryl’s conversational aims to identify an open garage where they can get petrol. More formally, it is part of their conversational aims to decrease the number of possible worlds compatible with their context sets to one which contains an open garage. Given that the semantic value of ‘There is a garage around the corner’ is consistent with there being a closed garage around the corner, uttering ‘There is a garage around the corner’ does not address Larry and Cheryl’s conversational aims. As a result, the Relevance maxim is violated and the additional proposition that there is an open garage around the corner is communicated to bring the utterance in compliance with the maxim.

1.5. A note on the semantics-pragmatics interface

There is a large and significant debate at the intersection of philosophy of language, formal semantics and linguistics about the proper role of context in the interpretation of expressions of natural language, often referred to as the semantic-pragmatics interface debate (SPI debate). The SPI debate goes far beyond the scope

---

40 One might argue that this is a case of transferred reference, viz. that ‘we’ refers to the car Larry and Cheryl are in and therefore that the semantic value of ‘We are out of petrol’ is the proposition that the car Larry and Cheryl are in is out of petrol (see e.g. Nunberg 1993). Nothing hangs on whether we allow this reading or stick with the reading in the main text, so I will leave things as they are.
of the present work, but it is worth mentioning to set aside any worries one might have that the framework I have given in §1.4 begs the question against my opponents.

Firstly, recall that we have distinguished three notions of context: (A) pre-semantic, (B) semantic (§1.4.1) and (C) post-semantic or pragmatic (§1.4.2). Very roughly put, the SPI debate is concerned with two dimensions of these distinctions: on one hand, with their accuracy and coherence, and on the other, with the role context plays with respect to particular expressions. The debate is polarised along both dimensions. So-called radical contextualists believe that distinctions between A, B and C are confused (see e.g. Bezuidenhout 2002; Recanati 2005; Travis 1997). They hold that the roles context plays with respect to the interpretation of a particular expression or sentence cannot be bracketed off into neat categories but remain inextricably bound up with the entire process of interpreting an utterance of that expression or sentence. In particular, it makes no sense to ask what semantic value a given expression might have independently of the context in which that expression is uttered. It is a corollary of radical contextualism that all (or the majority of) expressions of natural language cannot be assigned semantic values outside a context.  

Equally, multiple tokens of the same expression might be assigned radically different semantic values in different contexts.

Opposed to radical contextualists are the so-called semantic minimalists (e.g. Borg 2004; Cappelen and Lepore 2005). They believe that the distinction between A, B and C is correct. Many expressions are assigned semantic values outside a context. Expressions may communicate more than the information encoded in their semantic

---

41 Of course, since KS-System takes disambiguated sentence-semantic context pairs as inputs, there is a sense in which it too cannot assign a semantic value outside a context. However, this is not the sense at issue here. In particular, whenever KS-System takes a pair of a semantic context and a disambiguated sentence containing only context-insensitive expressions, the parameters of the semantic context (other than the world parameter) have no bearing on the assignment of a semantic value to that sentence. In contrast, according to radical contextualism, the semantic value of (almost) any sentence – whether it contains expressions with context-sensitive characters or not – may be radically affected by changes in context.

42 This is equivalent to a top-down principle of compositionality: the meaning of an expression is a function of the meaning of a sentence on a given occasion of utterance (see e.g. Recanati 2005, p. 171, fn. 1).
values, but this process is purely post-semantic. It is a corollary of semantic minimalism that very few expressions cannot be assigned semantic values outside a context.\footnote{Cappelen and Lepore (2005, pp. 39-52) argue that any view according to which an expression which does not feature on Kaplan’s list (cf. §1.3.4, fn. 30), ‘plus or minus a bit’ (p. 2), cannot be assigned a semantic value outside a context collapses into radical contextualism. Their reasoning is not entirely convincing (see e.g. Hawthorne 2006), but unimportant here.}

And there are those who are not easily confined to either category. For instance, Bach (e.g. 2005a, pp. 17-22) believes that the distinction between A, B and C is more or less correct, but that our characterisation of semantic values is mistaken; determining the semantic value of an expression need not determine the extension of that expression.\footnote{Bach is not (at least not explicitly) an assessor or attributor relativist (cf. §5.1; §5.5). However, his position is in some respects very similar to attributor relativism. For discussion, see MacFarlane (2007a).} Following §1.4.1, let us call a semantic value which determines an extension a propositional content. Following Bach (2005a, p. 15), let us call a semantic value which does not determine an extension a minimal propositional content. According to Bach, some expressions express minimal propositional contents outside a context, which are then turned into full-fledged propositional content in contexts. Different contexts may affect minimal propositional contents differently, so full-fledged propositional content may vary across different contexts (Bach 2005a, pp. 17-22). In other words, there is a sense in which Bach agrees with semantic minimalists that expressions have semantic values outside a context. However, there is also a sense in which he agrees with radical contextualists that expressions do not have semantic values outside a context.

Jason Stanley and Zoltán Gendler Szabó (2000) have more in common with semantic minimalists than Bach. They believe that the distinction between A, B and C is roughly correct, and they do not draw a distinction between semantic values \textit{qua} minimal and \textit{qua} full-fledged propositional content. However, unlike semantic minimalists, Stanley and Szabó believe that the set of context-sensitive expressions is larger than Kaplan’s list, and their analysis is ordered towards a unified treatment of all these expressions.
There is no evidence that any of the key players in the knowledge attribution debate have anything like radical contextualism or semantic minimalism in mind. At most, their views approximate Stanley and Szabó’s.\textsuperscript{45} That is, all of them seem to accept at least implicitly something like the distinction between A, B and C, and they are largely neutral with respect to the semantic analysis of expressions other than ‘know’.\textsuperscript{46} For this reason, I doubt that anything I have said in §1.4 begs the question, or sets up the debate with a bias, against any of my opponents.

\textsuperscript{45} Stanley (2000) believes that if there is variation in the semantic values of sentences which are identical in their surface structure, then these sentences must contain one of the expressions from Kaplan’s list (cf. §1.3.4, fn. 30) either in their surface structure or in their logical form, or they must contain a free variable in their logical form. Stanley and Szabó (2000) apply a similar idea to the problem of quantifier domain restriction. For instance, ‘every bottle’ in the sentence ‘Every bottle is empty’ is associated with a variable in its logical form which takes the domain of contextually salient bottles as its value. This may be similar to the approach taken by contrastivists (cf. §3.1), but it need not be the approach taken by attributor contextualists, and it is certainly not the approach taken by proponents of subject sensitive invariantism or assessor relativism.

\textsuperscript{46} Although there are some exceptions to this. For instance, attributor contextualists often assume that gradable adjectives (like ‘tall’ or ‘rich’) are context-sensitive and draw analogies between gradable adjectives and ‘know’ to support the view that ‘know’ is also context-sensitive (see e.g. DeRose 2009, pp. 173-74). Which expressions ‘know’ is in fact analogous to is moot (see e.g. Stanley 2004), so I will ignore this issue here.
2.1. Attributor contextualist semantics

Attributor contextualism is the most influential and perhaps the most popular form of variantism in the debate about the semantics of knowledge attributions. It is advocated by Stewart Cohen (1999), Keith DeRose (1995; 2009), David Lewis (1996) and others on roughly two grounds: its ability to account for felicity intuitions associated with knowledge attributions in a range of cases, and its ability to respect a number of theoretical considerations, especially Closure and Anti-Scepticism. In this section I will give a brief outline of attributor contextualist semantics based on KS-System from §1.4.1. In the next two sections I will explain the linguistic and theoretical motivations for attributor contextualism in more detail. In the final few sections I will show that attributor contextualists are committed to an error theory and cannot respect Robust. That contextualists are committed to an error theory is well-known (see e.g. DeRose 2009, Ch. 5; updated from DeRose 2006), but it is sometimes argued that the commitment is less substantial than it first appears and that it may be avoided at least in some cases (see e.g. Cohen 2005; DeRose 2009, pp. 159-60; Montminy 2009a). I will argue that this is not the case; attributor contextualist error theory is substantial and unavoidable.

Let us modify KS-system from §1.4.1 in five ways. First, say that the values of the individual i, time t, location l and world w parameters of semantic contexts are given by the attributor, i.e. the person who utters the sentence we are interested in
interpreting, the attributor’s time, location and world respectively.\footnote{This may be an over-simplification. For instance, John Perry (1997, pp. 594-96) points out that while the semantic value of the indexical ‘I’ and perhaps a few other expressions is determined automatically, i.e. simply by fixing the identity of the attributor, her time, location and world, the semantic values of other expressions may be determined in part by attributor intentions. Given that we are only interested in the semantics of knowledge attributions here, this over-simplification is harmless for our purposes.} We use the subscript ‘\( \alpha \)’ to indicate this. Second, replace the placeholder parameter \( n \) in our definition of semantic contexts with a parameter for epistemic standards \( e \). Third, say that the value of this parameter is determined in accordance with the \textit{Attributor Principle}: 

\textit{Attributor Principle:} The epistemic standard in a given semantic context is determined by the attributor’s practical interests and by the error possibilities salient to the attributor.\footnote{This definition is not uncontroversial (see e.g. DeRose 2009, p. 240; Greco 2008; Heller 1999), but it will serve our purposes here. In §2.3 we will see that alternative ways of defining the \textit{Attributor Principle} do not make any difference to my arguments.} 

Error possibilities are defined in a similar way to relevant alternatives (cf. §1.3.3), viz. a proposition \( q \) counts as an error possibility with respect to a proposition \( p \) if and only if \( p \) entails not-\( q \) and \( q \) entails not-\( p \); and they are often, although not always, made salient through being explicitly mentioned (Lewis 1996, p. 559). The more there is practically at stake for and the more error possibilities salient to the attributor, the higher the epistemic standard and therefore the better the epistemic position the subject needs to be in order for a knowledge attribution to the subject to come out true. The less there is practically at stake for and the fewer error possibilities salient to the attributor, the lower the epistemic standard and therefore the worse the epistemic position the subject needs to be in order for a knowledge attribution to the subject to come out true (e.g. DeRose 2009, pp. 47-66).\footnote{Jessica Brown (2006, pp. 422-24) argues that the salience of error possibilities and the practical interests of the attributor may affect epistemic standards in different ways. Specifically, making an} We use the subscript ‘\( \text{ap} \)’ to indicate that the value of the epistemic standards

\[ \text{ap} \equiv \text{some function of practical interest and error possibilities} \]

This definition is not uncontroversial (see e.g. DeRose 2009, p. 240; Greco 2008; Heller 1999), but it will serve our purposes here. In §2.3 we will see that alternative ways of defining the \textit{Attributor Principle} do not make any difference to my arguments.\footnote{Jessica Brown (2006, pp. 422-24) argues that the salience of error possibilities and the practical interests of the attributor may affect epistemic standards in different ways. Specifically, making an}
parameter $e$ is determined in accordance with the *Attributor Principle*. Fourth, say that ‘know’ has a context-sensitive character associated with the parameter $e_{ap}$ of the semantic context, i.e. its character is a non-constant function from the value of $e_{ap}$ to semantic values. Finally, remove the placeholder parameter $m$ from circumstances of evaluation. This leaves us just with the worlds parameter $w$; say that the world of the circumstance of evaluation is just the world of the semantic context, which we indicate using ‘$w_c$’.

In light of these modifications, we get the following process for the semantic interpretation of a knowledge attribution $\gamma S$ knows that $\Phi$:

(i) The system takes $\gamma S$ knows that $\Phi$ (disambiguated as required) and a semantic context $c$ (i.e. a sequence $<a, t_\alpha, l_\alpha, e_{ap}, w_\alpha>$) as an input.

(ii) The system looks at the characters of the constituents of $\gamma S$ knows that $\Phi$. Constituents with fixed characters are assigned semantic values as a constant function of $c$. Constituents with context-sensitive characters are assigned semantic values as a non-constant function of whichever parameters of $c$ they are associated with. In particular, ‘know’ is assigned a semantic value as a non-constant function of $e_{ap}$.

(iii) The system combines the semantic values of the constituents of $\gamma S$ knows that $\Phi$ and assigns a semantic value to $\gamma S$ knows that $\Phi$.

---

50 Why not just say that the world of the circumstance is the world of the attributor? Because we want our modified KS-System to capture the idea that the world of the circumstance is the world of the semantic context, not that the world of the circumstance is the world of the attributor. One reason for this is that it easily allows the technical characterisation of truth as a relation between sentences, semantic contexts and circumstances of evaluation (cf. §1.4.1) to be related to the more intuitive characterisation of truth as a relation between sentences and semantic contexts. That is, we can say that a sentence $\Phi$ is true at a context $c$ if and only if $\Phi$ is true at $c$ at the circumstance of $c$ (Kaplan 1989, p. 522; Lewis 1981; cf. MacFarlane 2014, pp. 57-59).
(iv) The semantic value of \( \Gamma \) S knows that \( \Phi \) determines the output of the system – the truth-value True or False – with respect to the world of the semantic context \( w_c \).

Accordingly, we can replace Base Definition* from §1.4.1 with Contextualist Definition:

**Contextualist Definition**: \([ \Gamma \) S knows that \( \Phi \)]_{w_c}^{<i_\alpha, t_\alpha, l_\alpha, e_{ap}, w_\alpha>} = \text{True} \text{ if and only if at a semantic context } <i_\alpha, t_\alpha, l_\alpha, e_{ap}, w_\alpha> \text{ and the world of the semantic context } w_c \text{ S confidently believes the proposition expressed by } \Phi, \text{ the proposition expressed by } \Phi \text{ is true and S’s epistemic position with respect to the proposition expressed by } \Phi \text{ meets the epistemic standard } e_{ap}.

The present modifications to KS-System establish a clear relation between the system and natural language. Specifically, the modified KS-System tells us exactly which semantic context and circumstance of evaluation is relevant to the interpretation of a sentence on an occasion of utterance, viz. the semantic context fixed by the attributor, her time, location, epistemic standard and world and the circumstance comprised of the world of the semantic context. More importantly for our purposes, **Contextualist Definition** tells us exactly what the attributor contextualist thesis amounts to. Informally, **Contextualist Definition** tells us that a knowledge attribution of the form \( \Gamma \) S knows that \( \Phi \) can express different propositions with respect to different semantic contexts due to the context-sensitivity of ‘know’ associated with the attributor’s epistemic standard (see e.g. DeRose 2009, pp. 47-66).
2.2. Motivations for attributor contextualism

2.2.1. Linguistic motivations: Bank Cases A to D

The linguistic motivations for attributor contextualism are based on felicity intuitions which are generated in response to two well-known cases involving first person knowledge attributions (see e.g. DeRose 2009, pp. 1-2) and two other cases involving third person knowledge attributions (see e.g. Cohen 1999, p. 58; DeRose 2009, pp. 61-66). Here are stripped down versions of these cases along with the attributor contextualist explanation of the felicity intuitions in each one:51

Bank Case A

It is Friday; Larry’s bank is open tomorrow; he was at the bank last Saturday and confidently believes that the bank will be open tomorrow; he is driving past the bank with his partner Cheryl; he has a cheque with him, but it is not especially important that he deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’.

Larry’s utterance of the sentence ‘I know that the bank will be open’ is felicitous. According to attributor contextualism, this sentence is assigned a semantic value with respect to (inter alia) the epistemic standard determined by Larry’s practical interests qua attributor. Since Larry has low practical interests and few error possibilities salient to him, following the Attributor Principle, the

51 Certain philosophers (e.g. Schaffer 2006, p. 88) suggest that the way in which these cases are presented is extremely important. Therefore, one might argue that by presenting stripped down versions of these cases I bias the discussion in my favour. In fact, I grant that these cases generate all the felicity intuitions my opponents claim they generate (I only dispute their explanations of why ordinary speakers have these intuitions), so there should be no worry with biasing the discussion in my favour (cf. §1.2, fn. 8).
epistemic standard is set moderately high, i.e. high enough that a moderately good but not excellent epistemic position meets it. Let us say that the semantic value assigned to the sentence is the proposition that Larry knows-LOW that the bank will be open on Saturday. If we suppose that going to the bank on a particular day is sufficient to place one in a moderately good epistemic position with respect to the proposition that the bank will be open on that day a week later, then it follows that Larry’s epistemic position qua subject with respect to the proposition that the bank will be open on Saturday is moderately good. Given this, and the fact that Larry confidently believes that the bank will be open on Saturday and the bank will in fact be open on Saturday, it follows that the proposition that Larry knows-LOW that the bank will be open on Saturday is true.

**Bank Case B**

The same as A, except it is very important that Larry deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. Cheryl says, ‘But banks change their hours’. Larry says, ‘I guess you are right; I don’t know that the bank will be open tomorrow’.

Larry’s utterance of the sentence ‘I don’t know that the bank will be open tomorrow’ is felicitous. This time Larry has high practical interests and several error possibilities salient to him, so, following the *Attributor Principle*, the epistemic standard is set fairly high, i.e. high enough that a moderately good but not excellent epistemic position does not meet it. Let us say that the semantic value assigned to the sentence is the proposition that Larry does not know-HIGH that the bank will be open on Saturday. Given that Larry’s epistemic position has not changed from Bank Case A to Case B, Larry is only in a moderately good epistemic position with respect to the proposition that the bank will be open on Saturday. Since a moderately good epistemic position does not meet a fairly high epistemic standard, it follows that the
proposition Larry does not know-HIGH that the bank will be open on Saturday is false.

**Bank Case C**

It is Friday; Larry and Jeff’s bank is open tomorrow; Larry was at the bank last Saturday and confidently believes that the bank will be open tomorrow; Jeff is driving past the bank with his partner Suzie; he has a cheque with him, but it is not especially important that he deposits the cheque before Monday. Jeff says, ‘Let’s deposit the cheque tomorrow’. Suzie says, ‘Are you sure? Many banks are closed on Saturdays’. Jeff says, ‘No, I asked Larry and he knows that the bank will be open tomorrow’.

Jeff’s utterance of the sentence ‘[Larry] knows that the bank will be open tomorrow’ is felicitous. Aside from the fact that the attributor is Jeff and not Larry, the case is directly analogous to Bank Case A, so ‘[Larry] knows that the bank will be open tomorrow’ expresses the true proposition that Larry knows-LOW that the bank will be open on Saturday.

**Bank Case D**

As with C, except it is very important that Jeff deposits the cheque before Monday. Jeff says, ‘Let’s deposit the cheque tomorrow’. Suzie says, ‘Are you sure? Many banks are closed on Saturdays’. Jeff says, ‘No, I asked Larry and he knows that the bank will be open tomorrow’. Suzie says, ‘But banks change their hours’. Jeff says, ‘I guess you are right; Larry doesn’t know that the bank will be open tomorrow’.

Jeff’s utterance of the sentence ‘Larry doesn’t know that the bank will be open tomorrow’ is felicitous. Aside from the fact that the attributor is Jeff and not Larry, the case is directly analogous to Bank Case B, so ‘Larry doesn’t know that the bank will be open tomorrow’ expresses the true proposition that Larry does not
know-HIGH that the bank will be open on Saturday. In short, attributor contextualists are able to grant the status of semantic intuitions to all the relevant felicity intuitions in Bank Cases A, B, C and D.

2.2.2. Theoretical motivations: *Closure* and *Anti-Scepticism*

Attributor contextualism was developed in part to account for the Bank Cases and other scenarios and in part as a response to the shortcomings of the Relevant Alternatives View (RAV). In particular, in §1.3.3 we saw that RAV is consistent with *Anti-Scepticism* but inconsistent with *Closure* and faces difficulties when it comes to defining the notion of relevance. Attributor contextualism outperforms RAV on all fronts here. Granted, the way in which the Attributor Principle works is not altogether clear; there are questions regarding exactly how and which of the attributor’s practical interests figure into setting the epistemic standard in a given semantic context, how they interact with salient error possibilities, whether certain error possibilities may be ignored and so on (cf. Lewis 1996). Nonetheless, the Principle is more precise than the claim that a subject needs to be able to rule out the relevant alternatives. Moreover, DeRose (2009, p. 13, fn. 9) claims that ‘exactly how context-sensitive verbs work is a very complex matter about which much openness seems called for at this point’; if he is right, then it seems we should want to avoid complete precision in describing the semantics of knowledge attributions.

More importantly, attributor contextualism is compatible with both *Anti-Scepticism* and *Closure* (see e.g. DeRose 1995), although the latter principle needs to be modified.

*Closure*: Knowledge is closed under known entailment (i.e. if a subject S knows that p and S knows that p entails q, then S knows that q), or complies with some plausible modification of this idea.

Consider sentence (1), which is an instance of *Closure*:
(1) If Larry knows that the bank will be open on Saturday and Larry knows that if the bank will be open on Saturday then the bank will not be closed on Saturday, then Larry knows that the bank will not be closed on Saturday.

Suppose that Larry utters sentence (1) in a scenario like Bank Case A, i.e. a scenario in which ‘know’ is assigned the semantic value know-LOW (§2.2.1). If the value of the epistemic standards parameter $e_{ap}$ is held fixed, then according to attributor contextualism (1) expresses the proposition LOW LARRY:

LOW LARRY. If Larry knows-LOW that the bank will be open on Saturday and Larry knows-LOW that if the bank will be open on Saturday then the bank will not be closed on Saturday, then Larry knows-LOW that the bank will not be closed on Saturday.

Given Closure, LOW LARRY is obviously true. In practice, however, there is nothing to prevent the value of $e_{ap}$ from varying over the course of an utterance (Stanley 2004, pp. 134-39). For example, suppose that when Larry begins to utter sentence (1) he is in a scenario like Bank Case A, but while he utters it he transitions to a scenario like Bank Case B, i.e. a scenario in which ‘know’ is assigned the semantic value know-HIGH (perhaps Cheryl mentions that banks change their hours while Larry is uttering sentence (1)). Then according to attributor contextualism (1) might express the proposition LOW-HIGH LARRY, which is obviously false:

LOW-HIGH LARRY. If Larry knows-LOW that the bank will be open on Saturday and Larry knows-LOW that if the bank will be open on Saturday then the bank will not be closed on Saturday, then Larry knows-HIGH that the bank will not be closed on Saturday.\footnote{If LOW-HIGH LARRY were true, then being in an epistemic position which is moderately good would entail being in an epistemic position which is better than moderately good, which is clearly false.}
In short, attributor contextualists can say that sentence (1) is true only if they can say that the semantic value of (1) is a proposition like LOW LARRY and avoid saying that the semantic value of (1) is a proposition like LOW-HIGH LARRY. In other words, they can say (1) is true only if they can hold the value of \( e_{ap} \) fixed across (1). Given that (1) is an instance of Closure, it follows that attributor contextualists can say Closure is true only if they can hold the value of \( e_{ap} \) fixed across any single instance of Closure, which amounts to a modification of the principle. That is, attributor contextualists cannot say that \( \left[ \text{If } S \text{ knows that } \Phi \text{ and } S \text{ knows that } \Phi \text{ entails } \Psi \right] \) is true simpliciter, but true only with respect to a single value of \( e_{ap} \). Nonetheless, if knowledge attributions are context-sensitive, then this is just the kind of modification we should expect (see e.g. DeRose 2009, pp. 217-18; cf. Kaplan 1989, pp. 522-23).

We can apply similar reasoning with regards to Anti-Scepticism.

**Anti-Scepticism:** The conclusions of sceptical arguments, such as that I do not know that I have hands, are false but can be compelling.

Take the following instance of the *Argument from Ignorance* (AI), the schema for which we initially encountered in §1.3.3:

**Argument from Ignorance**

P1. Larry does not know that he is not a BIV (brain-in-a-vat).

P2. Larry knows that if he has hands then he is not a BIV.

P3. If Larry does not know that he is not a BIV and Larry knows that if he has hands then he is not a BIV, then Larry does not know that he has hands.

C. Larry does not know that he has hands.

Whereas Closure is framed in terms of modus ponens, the truth of P3 relies on modus tollens. However, for all intents and purposes we can treat P3 as an instance of Closure. We have just seen that we need to hold the value of \( e_{ap} \) fixed across sentences like P3 if we want to preserve Closure. By the same reasoning, we
need to hold the value of \( e_{ap} \) fixed across P1 to C if we want to preserve the validity of AI.

According to attributor contextualists, the BIV and other radical sceptical hypotheses are a kind of error possibility *par excellence*, i.e. they impose epistemic standards which are too high for any humanly attainable epistemic position to meet (see e.g. Cohen 1999, pp. 65-67; DeRose 1995, pp. 33-38).\(^53\) As we can see, P1 of AI embeds the BIV hypothesis, so anyone who utters it imposes an extremely high epistemic standard. Given that AI must be evaluated with respect to a single value of \( e_{ap} \), it follows that AI is not only valid but sound according to attributor contextualism. This explains why sceptical conclusions can be compelling: they are true when they feature in sceptical arguments like AI.

Attributor contextualists can also say that sceptical conclusions are false. Consider the converse of the instance of the *Argument from Ignorance* above; call it the *Argument from Knowledge* (AK) (cf. Moore 1993, pp. 147-170):

*Argument from Knowledge*

P1. Larry knows that he has hands.

P2. Larry knows that if he has hands then he is not a BIV.

P3. If Larry knows that he has hands and Larry knows that if he has hands then he is not a BIV, then Larry knows that he is not a BIV.

C. Larry knows that he is not a BIV.

We have seen that we need to hold the value of \( e_{ap} \) fixed across sentences like P3. By the same reasoning, we need to hold the value of \( e_{ap} \) fixed across P1 to C if we want to preserve the validity of AK. Given that P1 does not embed a radical sceptical hypothesis, we will assume that someone who utters it may impose a moderately high, but not extremely high, epistemic standard. And given that AK must be evaluated with respect to a single value of \( e_{ap} \), it follows that AK may be sound according to attributor contextualism. In other words, the anti-sceptical

\[^53\]DeRose (1995, pp. 33-38) gives an elaborate account to explain exactly how this happens, but it is not relevant for our purposes.
conclusion that Larry knows that he is not a BIV can come out true. Attributor contextualism preserves both (a modified version of) *Closure* and *Anti-Scepticism*.\(^{54}\)

2.3. Against attributor contextualism

2.3.1. Linguistic problems: Bank Case E and semantic error

We noted in §2.1 that attributor contextualists are explicitly committed to an error theory, but it is sometimes argued that this commitment is less substantial than it first appears and that it may be avoided at least in some cases. Indeed, it is often unclear exactly what the commitment amounts to. I will do three things here: distinguish two kinds of error, show that attributor contextualists are explicitly committed to the claims that ordinary speakers are in both kinds of error and argue that their commitment to at least one of these claims is problematic, substantial and unavoidable.

\(^{54}\) Some critics argue that attributor contextualism does not really address *Anti-Scepticism* (see e.g. Klein 2000, p. 110; Kornblith 2000, p. 27; Sosa 2000, p. 2; Williams 2004, pp. 319-20). For example, they argue that it concedes too much to the sceptic (i.e. C in AI is true), concedes too little (i.e. P1 in AK is true), or does not really get to the heart of what radical scepticism is about (e.g. that we do not have knowledge in any semantic context, not just semantic contexts with extremely high epistemic standards). A proper examination of these issues would take us far beyond the scope of this work (see e.g. Williams 1996). Therefore, we will simply grant that attributor contextualism is consistent with *Anti-Scepticism*. For some related discussion, see §5.3.3.

\(^{55}\) There is at least one other significant motivation for attributor contextualism. DeRose (2009, Ch. 3; updated from DeRose 2002) argues from the premise (P1) that knowledge is the norm for assertion (cf. Williamson 2000, Ch. 11), the premise (P2) that the standards for assertion are context-sensitive to the conclusion (C) that attributor contextualism is true. Critics question the truth of both premises and the validity of the argument. For instance, Jessica Brown (2005a) argues that P1 is false and C does not follow from P1 and P2. Conversely, John Turri (2010) argues that P2 is false. The argument that knowledge is the norm for assertion is one of the key theoretical motivations for subject-sensitive invariantism, and I will discuss it in detail in Chapter 4. For now note that I follow Brown (and others) in thinking that knowledge is not the norm for assertion.
Firstly, it seems obvious that ordinary speakers cannot be expected to know which semantic analysis of the expressions they use is correct. For instance, they cannot be expected to know that something like *Base Definition* (§1.4.1) might govern the semantics of knowledge attributions. Nonetheless, there is a presumption that speakers have some very general awareness of the meanings of the expressions they use. For example, presumably ordinary speakers are in some sense aware that the expressions like ‘I’, ‘here’ and ‘now’ can refer to different individuals, locations and times on different occasions of use, that ‘It is raining’ might express the proposition that it is raining at the speaker’s location, that ‘Kripke’ refers to Kripke, and so on. However, as Stephen Schiffer points out, ordinary speakers do not seem to have anything like this awareness about the context-sensitivity of knowledge attributions:

‘[If attributor contextualism were true, the speaker of a knowledge attribution would] have to be totally ignorant of the sort of thing she’s saying. One who implicitly says that it’s raining in London in uttering “It’s raining” knows full well what proposition she’s asserting; if articulate, she can tell you that what she meant and was implicitly stating was that it was raining in London. But no ordinary person who utters “I know that p”, however articulate, would dream of telling you that what he meant and was implicitly stating was that he knew that p relative to such-and-such [an epistemic] standard.’ (Schiffer 1996, pp. 326-27)

Let us call this lack of awareness semantic blindness or ignorance (cf. Hawthorne 2004, pp. 107-111). Attributor contextualists are explicitly committed to the claim that ordinary speakers are semantically blind (see e.g. DeRose 2009, pp. 174-79; updated from DeRose 2006);56 however, it is not obvious that this is a serious problem for their view. It seems fairly clear from Schiffer’s objection that the awareness in question is something like a belief, i.e. ordinary speakers do not believe that knowledge attributions are context-sensitive, hence they ‘would not

56 Following Schiffer (1996, p. 329), DeRose (2009, p. 177) calls this ‘being bamboozled by our own words’.
dream of telling you’ that they are. In contrast, we have seen (cf. §1.2) that the standard practice in descriptive semantics is to treat ordinary speakers’ felicity intuitions as semantic intuitions; the practice makes no reference to ordinary speakers’ beliefs. One’s intuitions and beliefs are distinct, i.e. one can have an intuition which is inconsistent with one’s beliefs (see e.g. Weatherson 2003, pp. 2-6). Therefore, the claim that ordinary speakers are semantically blind is compatible with the standard practice in descriptive semantics. In light of this, attributor contextualists could argue that their commitment to the claim that ordinary speakers are semantically blind is not a serious problem.

In addition to the claim that ordinary speakers are semantically blind, attributor contextualists are also explicitly committed to the claim that ordinary speakers are in what we will call semantic error (see e.g. DeRose 2009, pp. 159-60). In §1.2 we said that an intuition that an utterance of Φ is felicitous is a semantic intuition if and only if the proposition expressed by Φ is true and an intuition that an utterance of Φ is infelicitous is a semantic intuition if and only if the proposition expressed by Φ is false. Given this, we will say that a speaker is in semantic error about Φ if and only if there is at least one case where she has the intuition that an utterance of Φ is felicitous when the proposition expressed by Φ is false or the intuition that an utterance of Φ is infelicitous when the proposition expressed by Φ is true. In other words, a speaker is in semantic error just in case her felicity intuitions do not match up with the felicity or infelicity of an utterance of Φ predicted by a semantic theory of Φ.

57 For example, in the so-called Monty Hall problem readers are presented with the following scenario (see e.g. Selvin et al 1975). Suppose you are on a game show and you are given a choice of three doors. Behind one door is a car, behind the others are goats. You pick door #1. The host, who knows what is behind all the doors, opens door #3. You see a goat. The host asks you if you want to pick door #2. Is it to your advantage to switch? Although it is now generally believed that there is an advantage to switching, most readers (including mathematicians) report the intuition that there is no advantage to switching (see www.marilynvossavant.com/game-show-problem).

58 Actually, DeRose and others (e.g. Hawthorne 2004, pp. 107-111) appear to conflate semantic blindness and semantic error. I take it that attributor contextualists are explicitly committed to both claims given their commitment to the conflated position.
Some attributor contextualists think that their commitment to the claim that ordinary speakers are in semantic error is not very substantial (see e.g. Montminy 2009a) and in some cases avoidable (e.g. Cohen 2005; DeRose 2009, p. 240; Ludlow 2005), so we cannot draw any immediate conclusions here. To show that these attributor contextualists are mistaken, I will introduce a new Bank Case, which supports the view that attributor contextualists are committed to the claim that ordinary speakers are in semantic error, demonstrate various problems with attempts to avoid this claim in this case and then show that the commitment is substantial.

Bank Case E

It is Friday; Larry’s bank is open tomorrow; he was at the bank last Saturday and confidently believes that the bank will be open tomorrow; he is driving past the bank with his partner Cheryl and his friend Jeff; he has a cheque with him, but it is not especially important that he deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. Later on, Jeff is talking to Suzie; he also has a cheque with him, and it is very important that he deposits it before Monday. Jeff says, ‘Let’s deposit the cheque tomorrow’. Suzie says, ‘Are you sure? Many banks are closed on Saturdays and yours might have changed its hours’. Jeff says, ‘Well, I asked Larry and he said that he knows that the bank will be open tomorrow’.

As John Hawthorne (2004, pp. 98-104) and others (e.g. Cappelen and Lepore 2005, pp. 88-99) point out, Jeff’s utterance ‘[Larry] said that he knows that the bank will be open tomorrow’ is felicitous. However, attributor contextualism predicts that it should be infelicitous. To see this, consider what happens in this case in more

59 Cappelen and Lepore (2005, Part II) use this kind of observation to argue against all forms of contextualism (radical contextualism, attributor contextualism about gradable adjectives etc.) and in favour of semantic minimalism (cf. §1.5). That is not what I am doing here; Bank Case E is not supposed to provide a refutation of attributor contextualism, but merely demonstrate a cost of the view.
detail. At the beginning, when Larry is talking to Cheryl, his semantic context *qua* attributor is exactly analogous to the one in Bank Case A (cf. §2.2.1). That is, little is practically at stake for Larry and few error possibilities are salient. As a result, a fairly low epistemic standard is set and the proposition expressed by Larry’s utterance ‘I know that the bank will be open’ is that Larry knows-LOW that the bank will be open on Saturday. Halfway through the case, when Jeff is talking to Suzie, the attributor’s context is exactly analogous to the one in Bank Case D (cf. §2.2.1). That is, a lot is practically at stake for Jeff and several error possibilities are salient. As a result, a fairly high epistemic standard is set and the proposition expressed by Jeff’s utterance ‘[Larry] said that he knows that the bank will be open tomorrow’ is that Larry said that he knows-HIGH that the bank will be open on Saturday. However, notice that Larry said that he knows-LOW that the bank will be open on Saturday, not that he knows-HIGH that it will be open. As a result, according to attributor contextualism, Jeff’s utterance is false and therefore should be infelicitous. To put it another way, the semantic context changes with respect to the value of the epistemic standards parameter $e_{ap}$ from Larry’s utterance of a knowledge attribution to Jeff’s utterance of a report of Larry’s utterance. Consequently, the knowledge attribution ‘[Larry] know[s] that the bank will be open’ is assigned different semantic values when Larry utters it and when Jeff reports it, so Jeff’s report comes out false. Because the report is false, it should be infelicitous.

Note that the problem is not confined to indirect speech reports, but affects embedding constructions quite generally. For example, we can come up with analogues of Bank Case E using ‘Larry believes that he knows’, ‘Larry thinks that he knows’, ‘Larry suspects that he knows’ and so on. In each case, according to attributor contextualism what Larry is reported as believing, thinking or suspecting is different from what he says he believes, thinks or suspects (see Hawthorne 2004, pp. 98-104).

Some attributor contextualists have argued that the analysis in the previous two paragraphs is mistaken; attributor contextualism does not predict that utterances of knowledge attributions in embedding constructions should be infelicitous. There are three reasons why they might think this: knowledge attributions in embedding and non-embedding constructions are distinct but co-extensive lexical items; there is
an exception to the *Attributor Principle* in embedding constructions; or we have defined the *Attributor Principle* too narrowly. Let us consider each of these possibilities in turn.

Stewart Cohen seems to advocate the first possibility (cf. Ludlow 2005, pp. 39-40):

‘Consider first what happens in the case of a context-sensitive term like the indexical ‘I’. When Jones disquotes Smith’s utterance of his belief report, he naturally replaces ‘I’ with ‘he’ [i.e. Smith reports his belief that he knows that \( \Phi \) by uttering \( \lceil I \text{ know that } \Phi \rceil \) and Jones, thinking that Smith’s report is true, says \( \lceil \text{He knows that } \Phi \rceil \)]. The underlying principle here is that when you disquote an utterance of a context-sensitive term, you do so in a way that preserves semantic value. In the case of ‘I’, the language provides an easy way for the speaker to do this, viz by replacing ‘I’ with ‘he’. […] But unlike the case of ‘I’, the language does not provide a handy word to substitute when we disquote [knowledge attributions] that will preserve semantic value. But this is no reason to deny that when we disquote utterances containing these kinds of context-sensitive terms, we do so in a way that preserves semantic value.’ (Cohen 2005, p. 202).

Cohen’s point applies to unembedded occurrences of knowledge attributions, but we can extend it to embedded occurrences. The thought would be that whenever knowledge attributions occur in embedding constructions, they are used in a way which preserves semantic value from the semantic context of the subject to the semantic context of the attributor. In particular, given that ‘I’ and ‘he’ are distinct but co-extensive lexical items in Cohen’s example, presumably knowledge attributions in embedding and non-embedding constructions are supposed to be distinct but co-extensive lexical items.

There are at least two problems with this sort of claim. Firstly, different lexical items can have either the same morphological and phonetic structure but different extensions, as in the ambiguous ‘bank’ (cf. §1.4.1) or polysemous ‘wood’, or different morphological or phonetic structures and the same extension, as in the synonymous ‘closed’ and ‘shut’ or co-extensive ‘I’ and ‘he’ in Cohen’s example.
Different lexical items cannot have the same morphological and phonetic structure and extension. Indeed, if we are faced with a single morphological and phonetic structure and a single extension, it seems more plausible that we are dealing with one lexical item rather than two (or more). In contrast, Cohen’s claim requires that there be different lexical items which have the same morphological and phonetic structure and extension. Secondly, and relatedly, Cohen’s claim is entirely *ad hoc*; even if there is a set of items which are lexically distinct but which have the same morphological and phonetic structure and extension, there is no independent evidence that the predicate ‘know’ belongs to this set.

Alternatively, attributor contextualists could allow an exception to the *Attributor Principle*. Specifically, they could opt for *Attributor Principle*:

*Attributor Principle*: When a knowledge attribution appears in a non-embedding construction the epistemic standard in a given semantic context is determined by the attributor’s practical interests and by the error possibilities salient to the attributor. When a knowledge attribution appears in an embedding construction the epistemic standard in a given semantic context is determined by the practical interests of and the error possibilities salient to the subject of the embedding construction (e.g. S in ‘S says that’).

For example, suppose that ‘said that’ is an operator which shifts the semantic value of the embedded knowledge attribution from the semantic context of the attributor to the semantic context of the subject of ‘said’. Then when one utters ‘Larry said that he knows that the bank will be open’, the semantic value of the knowledge attribution is determined as a function of Larry’s rather than the attributor’s semantic context. If this is right, then attributor contextualism predicts that in Bank Case E Jeff’s utterance ‘Larry said that he knows that the bank will be open tomorrow’ is felicitous.

*Attributor Principle* may not be *ad hoc*; there is independent evidence that the semantic values of context-sensitive expressions, including indexicals, can be systematically shifted in embedding constructions (Schlenker 2003; cf. Hawthorne
However, even if Attributor Principle* can be used to account for Bank Case E, it cannot be used to account for more complex embedding examples (cf. Cappelen and Hawthorne 2009, pp. 45-63; Cappelen and Lepore 2005, pp. 99-104). For instance, consider the following sentence:

(2) Larry said that he knows that Φ, and Jeff said that Larry knows that Φ, so Larry knows that Φ according to Larry and Jeff.

Although it seems clear that all utterances of sentence (2) are felicitous, Attributor Principle* predicts that at least some utterances of (2) should be infelicitous. Therefore, attributor contextualists are committed to the claim that ordinary speakers are in semantic error with respect to utterances of (2). Using the subscript ‘ap*’ to indicate that the value of a parameter is determined in accordance with Attributor Principle*, suppose that the value of the epistemic standards parameter $e_{ap}$ in Larry’s semantic context is the epistemic standard in Bank Case A, the value of $e_{ap}$ in Jeff’s context is the epistemic standard in Bank Case B and the value of $e_{ap}$ in my semantic context is an epistemic standard higher than in Bank Case A or B (cf §2.2.1). Specifically, suppose that in my semantic context an utterance of $⌜Larry knows that Φ⌝$ would express the proposition that Larry knows-SUPERHIGH that $p$. Consequently, suppose that the semantic values of ‘know’ with respect to Larry’s, Jeff’s and my semantic contexts are know-LOW, know-HIGH and know-SUPERHIGH respectively. Now imagine that I utter (2). According to Attributor Principle* the first conjunct of the antecedent preserves the semantic value of the knowledge attribution from Larry’s semantic context, the second conjunct of the antecedent preserves the semantic value of the knowledge attribution from Jeff’s semantic context and the consequent is assigned a semantic value as a function of my semantic context. In other words, according to Attributor Principle* my utterance of (2) expresses INVALID LARRY:

---

60 Pace Kaplan (1989, pp. 510-12). For example, in Amharic the indexical ‘I’ can refer to the subject rather than to the speaker when it is embedded in indirect speech reports (Schlenker 2003, p. 31).

61 I assume that $⌜Φ, so Ψ⌝$ is analogous to the indicative conditional $⌜If Φ, then Ψ⌝$, so I call the first two clauses of (2) the antecedent and the last clause the consequent.
INVALID LARRY. Larry said that he knows-LOW that \( p \), and Jeff said that Larry knows-HIGH that \( p \), so Larry knows-SUPERHIGH that \( p \) according to Larry and Jeff.

INVALID LARRY is obviously false, so (2) is false. Therefore, according to Attributor Principle\(^*\) my utterance of (2) should be infelicitous.

There are several responses attributor contextualists could try to make in order to avoid this outcome. Firstly, they could argue that ‘according to Larry and Jeff’ is an embedding construction, so following Attributor Principle\(^*\) the consequent of (2) should be assigned a semantic value with respect to both Larry and Jeff’s semantic contexts. Unfortunately, in this case the best result attributor contextualists could hope for is that no truth-value is assigned to the consequent of (2), and hence to (2) (cf. DeRose 2009, pp. 144-48). That is, given that Larry and Jeff’s semantic contexts are different with respect to the value of the epistemic standards parameter \( e_{ap} \), it is not possible to assign a semantic value to \( \forall \) Larry knows that \( \Phi \) with respect to both Larry and Jeff’s semantic contexts. Since a semantic value must be assigned to a sentence in order to generate a truth-value, at best the consequent of (2), and hence (2), is assigned no truth-value. Of course, if the consequent of (2) is assigned no truth-value, then a fortiori (2) is not true, so attributor contextualism still predicts that my utterance of (2) should be infelicitous (see DeRose 2009, pp. 146-48).\(^{62}\)

\(^{62}\) Perhaps we can get the right result under lambda-abstraction (see Cappelen and Hawthorne 2009, pp. 45-50)? Say that ‘know\(_x\)’ denotes the semantic value of ‘know’ determined by the practical interests of and the error possibilities salient to some individual \( x \). Then the consequent of (2) can be analysed roughly as \( \forall \) Larry and Jeff \( \lambda x \) (Larry knows\(_x\) that \( \Phi \) according to \( x \)) \( \cap \). In other words, the semantic value of the knowledge attribution is determined by distributing over Larry’s and Jeff’s semantic contexts. Even if this works for sentence (2), it does not work for other kinds of sentences. For example, take \( \forall \) Larry said that he knows that \( \Phi \), and Jeff said that Larry knows that \( \Phi \). As Cappelen and Hawthorne (2009, pp. 56-57) explain, ‘agree’ does permit distribution over Larry’s and Jeff’s semantic contexts. Specifically, the consequent of this sentence is analysed as \( \forall \) Larry and Jeff \( \lambda xs \) (Larry knows\(_x\)s that \( \Phi \) according to \( xs \)) \( \cap \). As a result, according to attributor contextualism the consequent of the sentence \( \forall \) Larry said
Alternatively, attributor contextualists could argue that each conjunct of the antecedent of (2) and the consequent of (2) might be independently true, so (2) might be true. That is, it might be true that Larry said that he knows-LOW that $p$, that Jeff said that Larry knows-HIGH that $p$ and that Larry knows-SUPERHIGH that $p$, therefore (2) is true. However, this ignores the semantic function of ‘so’. I take it that $\forall \Phi, \exists \Psi$ is true at a circumstance of evaluation only if $\Psi$ is true at every circumstance of evaluation at which $\Phi$ is true (Edgington 2006; cf. fn. 61; §5.3.2, fn. 111). It is more difficult to know-SUPERHIGH a proposition than to know-LOW or know-HIGH a proposition, so there will be possible worlds with respect to which it is true that Larry knows-LOW and knows-HIGH that $p$, but false that Larry knows-SUPERHIGH that $p$. Which is just to say that there are circumstances of evaluation at which that Larry knows-LOW that $p$ and that Larry knows-HIGH that $p$ is true, but that Larry knows-SUPERHIGH that $p$ is false. Therefore, (2) is false.

Finally, in line with their modification of Closure (cf. §2.2.2), attributor contextualists could argue that we need to keep the value of $e_{ap^*}$ fixed across sentences like (2). Then (2) might express the proposition VALID LARRY:

VALID LARRY: Larry said that he knows-LOW that $p$, and Jeff said that Larry knows-LOW that $p$, so Larry knows-LOW that $p$ according to Larry and Jeff.

VALID LARRY describes a valid argument, but it is still false; Jeff said that Larry knows-HIGH that $p$ and not that that Larry knows-LOW that $p$. So again, according to Attributor Principle* my utterance of (2) should be infelicitous. In short, even if Attributor Principle* can be used to account for felicitous utterances of simple embedding constructions like $\forall \Phi$, Larry said that he knows that $\Phi$, it cannot be used to account for felicitous utterances of more complex embedding constructions like (2).

---

that he knows that $\Phi$, and Jeff said that Larry knows that $\Phi$, so Larry and Jeff agree that Larry knows that $\Phi$ is either false or without truth-value, and hence the sentence is either false or without truth-value. Consequently, attributor contextualism still predicts that an utterance of this sentence should be infelicitous.
This leaves us with the idea that our definition of the *Attributor Principle* is too narrow. Specifically, instead of tying the value of the epistemic standards parameter to the practical interests of and error possibilities salient the attributor, attributor contextualists could tie it to the attributor’s wider social setting:

*Attributor Principle‡*: The epistemic standard in a given semantic context is determined by the attributor’s social setting and by the error possibilities salient in the attributor’s social setting.

The attributor’s social setting could include the practical interests and error possibilities salient to the subject of an embedding construction. As a result, the attributor’s semantic context could take on features of the subject’s semantic context and the semantic value of a knowledge attribution could be preserved across embedding and non-embedding constructions.

*Attributor Principle‡*, or something like it, is at work in certain parts of Cohen’s (2005, p. 203) and DeRose’s (2009, p. 240) defences of attributor contextualism, as well as in other work (see e.g. Greco 2008; 2010, Ch. 7; cf. §2.3.2). However, it too suffers from various problems. Firstly, John MacFarlane (2014, pp. 243-45; updated from MacFarlane 2011) worries that if we accept *Attributor Principle‡*, there is no way to block very liberal conceptions of semantic contexts, including one which incorporates all possible epistemic standards. This conception is practically equivalent to treating knowledge attributions as context-insensitive, so it is not something attributor contextualists should want to endorse.\(^{63}\) Relatedly, it is unclear how wide or narrow a conception of the attributor’s practical situation we ought to have. The best answer seems to be whatever conception is relevant on a particular occasion; however, this would mean attributor contextualists have to fall back on a notion of relevance and therefore lose one of the main advantages of their view over the Relevant Alternatives View (cf. §2.2.2). Finally, it seems that *Attributor Principle‡* could run into problems with more complex embedding constructions, analogous to *Attributor Principle*\(^*\). For instance, unless we are

\(^{63}\) MacFarlane’s worry concerns attributor contextualism about ‘might’, but it works equally well for attributor contextualism about knowledge attributions.
willing to define a social setting very widely, according to *Attributor Principle* each conjunct in the antecedent and the consequent of sentence (2) above will be assigned a different semantic value. As a result, sentence (2) will come out false and therefore any utterance of it should be infelicitous. As we noted, any utterance of sentence (2) would be felicitous.

In sum, there are no options available to attributor contextualists for dealing with Bank Case E without committing to the claim that ordinary speakers are in semantic error or taking on a host of other problems. In light of this, I conclude that attributor contextualists are committed to the claim that ordinary speakers are in semantic error. Nonetheless, some attributor contextualists think that their commitment to this claim is not very substantial. For example, according to DeRose (2009, pp. 161-74), instead of Bank Case E, we could imagine something like Bank Case F:

*Bank Case F*

It is Friday; Larry’s bank is open tomorrow; he was at the bank last Saturday and confidently believes that the bank will be open tomorrow; he is driving past the bank with his partner Cheryl and his friend Jeff; he has a cheque with him, but it is not especially important that he deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. The next day Cheryl is murdered inside the bank. A police officer interviews Jeff in connection with the case. The police officer says, ‘Did anyone close to Cheryl know that the bank would be open today?’. Jeff says, ‘Yes, Larry said that he knew that the bank would be open on Saturday’.

DeRose would argue that Jeff’s utterance ‘Yes, Larry said that he knew that the bank would be open on Saturday’ is infelicitous, which is just what is predicted by attributor contextualism. More generally, he argues that utterances of embedded knowledge attributions are infelicitous in cases where the epistemic standard in the
semantic context of the subject of an embedding clause is clearly much lower than the epistemic standard in the semantic context of the attributor (DeRose 2009, pp. 164-65).

We will grant that DeRose is right about the felicity intuitions in these cases. What does this show about attributor contextualism? Presumably what DeRose wants it to show is that attributor contextualists are not committed to semantic error with respect to embedded knowledge attributions. However, all it actually shows is that attributor contextualists are not committed to semantic error with respect to some cases of embedded knowledge attributions. This does nothing to undermine the point illustrated by Bank Case E, viz. that, pace attributor contextualism, some utterances of embedded knowledge attributions are felicitous. In order to show that DeRose is not committed to semantic error or the commitment is not very substantial, he would need to demonstrate that cases where utterances of embedded knowledge attributions are infelicitous are somehow better indicators of the semantics of knowledge attributions than cases where they are felicitous. And I do not see any way of doing this without either engaging in corpus linguistics (cf. §1.2), which DeRose does not do, or begging the question in favour of attributor contextualism. 64

Martin Montminy (2009a) has given some other reasons to think that attributor contextualists’ commitment to semantic error is not very substantial. 66 In particular, he argues that because knowledge attributions are syntactically complete, do not contain any obvious indexicals and because there is a lack of clear and concise ways to indicate the governing epistemic standard on a given occasion of utterance, knowledge attributions are bound to appear context-insensitive (Montminy 2009a, pp. 64-65).

64 Sometimes DeRose argues that attributor contextualism predicts all the right results in ‘the best and most relevant test cases’ (DeRose 2009, p. 163). This seems far from surprising or informative. For any vaguely plausible theory there will be cases which the theory is well-placed to account for. There are also likely to be cases which the theory cannot account for. It is not a good response to the latter cases simply to point out how well the theory works in the former cases.

65 Because of these concerns, we will ignore Bank Case F in the following chapters.

66 Montminy also seems to conflate semantic ignorance and semantic error (cf. fn. 58), so we will take his points to apply to both kinds of error theory equally.
649-52). The problem is that usually these sorts of observations are taken as evidence that an expression or sentence is context-insensitive, not context-sensitive. For example, some theorists think that ‘It is raining’ is context-sensitive because it is syntactically incomplete; there is an elided indexical element which refers to the speaker’s location (see e.g. Stanley 2000, pp. 415-16). So Montminy’s argument goes against the grain of semantic theorising; indeed, it works only if one already assumes that attributor contextualism is true.

In sum, attributor contextualists are committed to the claim that ordinary speakers are in semantic error at least with respect to some utterances of embedded knowledge attributions. This commitment is unavoidable and substantial, in the sense that it is not offset by considerations regarding other utterances of embedded knowledge attributions or from syntactic and semantic evidence.

2.3.2. Theoretical problems: Robust

Attributor contextualists think that a single knowledge attribution can have different semantic values with respect to different values of the epistemic standards parameter. As a result, a single knowledge attribution can represent one of two things: either different knowledge relations, or different instantiations of the knowledge relation. In either case, I argue that attributor contextualism is inconsistent with Robust:

---

67 One might think that we can use ‘by the standards of’ to indicate the governing epistemic standard, as in ‘Larry knew that whales are mammals by the standards of science’ (Ludlow 2005, pp. 29-35). However, Jason Stanley (2005, pp. 69-72) points out that this would prove too much; ‘by the standards of’ can be added to many expressions which we would not want to analyse as context-sensitive (cf. Ludlow 2008, pp. 104-105).

68 This section is heavily based on John Greco’s work (2008; 2010, Ch. 7) and my (2013) response to Greco.

69 Whether one thinks that a single knowledge attribution represents different knowledge relations or different instantiations of the knowledge relation will depend on one’s metaphysical outlook. For example, Michael Williams (1996) seems to think that there are multiple knowledge relations, while
Robust: Knowledge is a relatively disciplined, stable or robust phenomenon. It is not a disparately varied, individual-dependent or arbitrary relation or set of relations. In particular, it does not come and go with the arbitrariness and ease of changing an individual’s practical interests.

Firstly, consider just how different different knowledge relations or instantiations of the knowledge relation can be. In §2.2.1 we saw cases with two epistemic standards, high and moderately high, which required subjects to be in excellent and moderately good epistemic positions respectively. It is difficult to imagine that these pairs of epistemic standards and positions have very much in common, so it is difficult to imagine that the knowledge relations or the instantiations of the knowledge relation picked out with respect to these two epistemic standards have very much in common. To emphasise the point, imagine a largely ignorant attributor with nothing practically at stake and a sceptical attributor with a great deal practically at stake. The former will be in a semantic context which sets a very low epistemic standard, low enough for virtually any epistemic position to meet. The latter will be in a semantic context which sets a very high epistemic standard, too high for any humanly achievable epistemic position to meet (cf. §2.2.2). It is difficult to imagine that there is anything in common between these pairs of epistemic standards and positions, so it is difficult to imagine that there is anything in common between the knowledge relations or the instantiations of the knowledge relation picked out with respect to these two epistemic standards. In other words, the knowledge relations or the instantiations of the knowledge relation picked out here are disparately varied.

Secondly, notice that the selection of a given knowledge relation or a given instantiation of the knowledge relation is individual-dependent. Attributor contextualism does not imply that a subject stands in a knowledge relation or an instantiation of the knowledge relation to some proposition if and only if an attributor actually makes a knowledge attribution to the subject which expresses a true

Jonathan Schaffer (2004a; 2005a) seems to think that there are different instantiations of the knowledge relation (cf. §3.1). Nothing hangs on which outlook we might prefer here.
proposition (cf. DeRose 2009, pp. 212-15). However, it does imply that that a subject stands in a knowledge relation or an instantiation of the knowledge relation to some proposition if and only if some attributor would make a knowledge attribution to the subject which would express a true proposition. In this sense, whether and what knowledge relation or instantiation of the knowledge relation a subject stands in with respect to a proposition depends on an individual.

Thirdly, note that the way in which the instantiations of the knowledge relation or knowledge relations are picked out is arbitrary. The Attribute Principle places no restriction on the identity of the attributor, so it places no restrictions on the way a knowledge relation or an instantiation of the knowledge relation is picked out with respect to a semantic context. It is pure luck whether a particular subject is attributed knowledge by an ignorant attributor with little practically at stake or by a radically sceptical attributor with a great deal practically at stake.

Moreover, notice that whether a particular subject is counted as a knower or not, i.e. whether she stands in a knowledge relation or an instantiation of the knowledge relation to some proposition, can change with nothing other than a change in the identity of the attributor, or the practical interests of and error possibilities salient to a single attributor. That is, unless two attributors have exactly the same practical interests and error possibilities salient to them, a change in the identity of the attributor or a change in the practical interests of and error possibilities salient to a single attributor is sufficient to affect the value of the epistemic standards parameter. Therefore, it is sufficient to affect the semantic value of a knowledge attribution. Given that different semantic values of a single knowledge attribution represent either different knowledge relations, or different instantiations of the knowledge relation, it follows that a change in the identity of the attributor or a change in the practical interests of and error possibilities salient to a single attributor is sufficient to affect whether a subject counts as a knower or not. Which is just to say that knowledge comes and goes with the arbitrariness and ease of changing attributors or a single’s attributor’s practical interests and the error possibilities salient to her.

In short, pace Robust, according to attributor contextualism knowledge is a disparately varied, individual-dependent and arbitrary relation or set of relations. In
particular, it can come and go with the arbitrariness and ease of changing an individual’s, i.e. the attributor’s, practical interests. In response to this sort of worry, John Greco (2008; 2010, Ch. 7) makes two suggestions. Firstly, he assumes that ‘a primary function of our knowledge language is to flag information for use in practical reasoning’ (Greco 2008, pp. 428-29), and he suggests that this restricts the range of semantic values a knowledge attribution can have. In particular, he believes that knowledge language would not perform this function (or at least, it would not perform it very well) if the semantic value of a knowledge attribution could be determined as a function of very low epistemic standards, since it would be possible for knowledge language to flag information which is in fact poor or defective as admissible for practical reasoning. Likewise, knowledge language would not perform this function if the semantic value of a knowledge attribution could be determined as a function of very high epistemic standards, since it would be possible for knowledge language to flag virtually all information as poor or defective and thus inadmissible for practical reasoning.

Secondly, Greco argues that it is more plausible that the semantic value of a knowledge attribution depends on ‘the actual interests of some relevant group’ (Greco 2008, p. 431) than on the perceived interests of an individual. The thought here is that it is not features of the attributor but features of the attributor’s wider social setting, specifically the actual interests of some relevant group in the attributor’s social setting, which determine the semantic value of a knowledge attribution. Together these suggestions are supposed to minimise at least two worries, viz. that according to attributor contextualism knowledge is disparately varied and individual-dependent.

Greco’s assumption that knowledge language flags information for use in practical reasoning may be supported by Role, so we will grant it here.

*Role:* Knowledge attributions play certain social roles, such as highlighting good informants about the truth of the proposition embedded under a knowledge attribution.
However, it does not follow from this assumption that information which only meets very low epistemic standards is always inadmissible for practical reasoning, or that information which falls just short of very high epistemic standards is always admissible for practical reasoning. Greco needs additional premises to secure this result. For example, he might argue that any process of practical reasoning requires information which is not in some way defective and that for any process of practical reasoning there is always some information which would be admissible. But this premise seems obviously false; it is plausible that there are or could be groups engaged in practical reasoning with such extreme implications that no information counts or would count as admissible (imagine a committee deciding whether to authorise a very dangerous nuclear experiment), and groups engaged in such trivial activities that even very defective information counts or would count as admissible (imagine a group of children deciding whether to go ahead with a sandpit experiment). Quite generally, one can construct scenarios where the practical stakes are so high that any information counts as inadmissible for practical reasoning and scenarios where the practical stakes are so low that even defective information counts as admissible for practical reasoning (see e.g. Brown 2008; cf. §4.3.3). In short, the social function of knowledge can only restrict the range of semantic values which can be assigned to a knowledge attribution relative to a restricted range of practical interests, but there does not seem to be a good reason to think that the range of practical interests is restricted.

Greco’s suggestion that the semantic value of a knowledge attribution depends on the actual interests is also problematic. For one, it is just not obvious that tying the semantic value of a knowledge attribution to groups of individuals rather than single individuals does anything to alleviate the concern that knowledge is individual-dependent. More importantly, notice that this kind of amendment is essentially equivalent to Attributor Principle†, which we have already criticised in the previous section.

Finally, note that even if everything Greco says is right, it is still the case that according to attributor contextualism knowledge is varied and individual-dependent; it is just not nearly as varied or individual-dependent as we initially thought. In other words, attributor contextualism is still in conflict with Robust. I conclude that
attributor contextualist semantics is in conflict with one of the relevant theoretical considerations about knowledge.

2.4. Conclusion: the attributor contextualist scorecard

We have looked at the following in this chapter: attributor contextualist semantics, the main linguistic and theoretical motivations for this semantics and some linguistic and theoretical problems which fall out of this semantics. In particular, we distinguished two kinds of error – semantic blindness or ignorance and semantic error – and saw that attributor contextualists are committed to the claim that ordinary speakers are in both kinds of error, without any option to minimise or somehow avoid the commitment. We also saw that attributor contextualism is in conflict with Robust. To make it easier to compare the various positions under discussion here, let me introduce the notion of a scorecard and present the attributor contextualist scorecard (Table 2).\(^7^0\)

Table 2: attributor contextualist scorecard

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributor contextualism</td>
<td>Yes: Bank Cases A, B, C, D (and F)</td>
<td>Yes: Closure and Anti-Scepticism</td>
<td>Yes</td>
<td>Yes: Bank Case E</td>
<td>No</td>
<td>Yes: Robust</td>
<td></td>
</tr>
</tbody>
</table>

\(^7^0\) I believe the term ‘scorecard’ caught on from Hawthorne (e.g. 2004, pp. 185-86). The scorecards for all the views under discussion in this work can be found in §7.1
The ‘Scores’ columns highlight all the main features we are looking for in a theory of the semantics of knowledge attributions. Going from left to right, we check whether a theory is linguistically motivated and what the motivation is, whether it is theoretically motivated and what the theoretical motivation is, whether the theory involves a claim that ordinary speakers are semantically blind, a claim that they are in semantic error, and in that case whether the theory provides any explanation why speakers are in semantic error. In §2.3.1 we explained that a commitment to the claim that speakers are semantically blind is consistent with the prevalent methodology in descriptive semantics, so the semantic blindness column is not especially important; we italicise it to indicate this. A commitment to the claim that speakers are in semantic error is a cost, but we noted in §1.2 that this cost can be mitigated if the reason speakers are in semantic error is explained. The last column is the most important, so we highlight it in bold. Following FATSO (cf. §1.2), whether a theory of the semantics of knowledge attributions conflicts with the relevant theoretical considerations can confirm or decide against the theory. For example, if it turned out that attributor contextualism did not conflict with any relevant theoretical considerations, then one could argue that FATSO mandates the attributor contextualists’ commitment to semantic error given that they can account for Closure and Anti-Scepticism. That is, even though attributor contextualists cannot explain why ordinary speakers are in semantic error, their commitment to the claim that speakers are in semantic error would come at no cost. However, as the scorecard indicates, this is not the case; attributor contextualism conflicts with Robust. Therefore, following FATSO, we presume that attributor contextualism is false and move on to the next view.


Chapter 3

Contrastivism

3.1. Contrastivist semantics

There are at least two types of contrastivism: what we can call prescriptive and descriptive contrastivism (see e.g. Blaauw 2008). Prescriptive contrastivists believe that even if knowledge attributions do not have a contrastivist semantics already, they should be given a contrastivist semantics (see e.g. Sinnott-Armstrong 2008, p. 268). This attitude is at odds with the project of descriptive semantics we are engaged in (cf. §1.2), so we will ignore prescriptive contrastivism here. Descriptive contrastivists, hereafter just contrastivists, believe that various linguistic and theoretical considerations support the claim that knowledge attributions actually have a contrastivist semantics (see e.g. Schaffer 2004a; 2005a; 2008). This is the view we will be focusing on.

Contrastivist semantics is very similar to attributor contextualist semantics (see e.g. Schaffer 2004a, p. 82), so we can expect all of the motivations and problems which we considered in the previous chapter for attributor contextualism to carry over here (see e.g. Schaffer 2004a, pp. 92-94). However, Jonathan Schaffer (2004a; 2005a; 2008) argues that there are several important differences and additional linguistic and theoretical motivations for contrastivism which give it an edge over attributor contextualism. For this reason, contrastivism deserves independent consideration. In this section I will examine contrastivist semantics and the differences between attributor contextualism and contrastivism. In the next two sections I will outline some of the linguistic and theoretical motivations for contrastivism which are supposed to set it apart from attributor contextualism, and in
the last few sections I will argue that the contrastivist analysis of these motivations is mistaken. It turns out that, pace Schaffer, attributor contextualism and contrastivism stand or fall together.

To begin with, let me introduce \textit{Contrastivist Definition} and the \textit{Contrastivist Attributor Principle}; I will unpack these two notions shortly.

\textit{Contrastivist Definition}: \(\llbracket \Gamma S \text{ knows that } \Phi \text{ (rather than } \Psi) \rrbracket_{wc}^{\langle i_\alpha, t_\alpha, l_\alpha, r_{\text{cap}}, w_\alpha \rangle} = \text{True if and only if a semantic context } \langle i_\alpha, t_\alpha, l_\alpha, r_{\text{cap}}, w_\alpha \rangle \text{ and the world of the semantic context } w_c \text{ S confidently believes the proposition expressed by } \Phi, \text{ the proposition expressed by } \Phi \text{ is true and S is in an epistemic position to rule out every member of the contrast set } r_{\text{cap}}.\)

\textit{Contrastivist Attributor Principle}: The value of the contrast set parameter \(r_{\text{cap}}\) in a given semantic context and in the logical form (LF) of a knowledge attribution \(\Gamma S \text{ knows that } \Phi \text{ rather than } \Psi\) is the proposition expressed by \(\Psi\). The value of \(r_{\text{cap}}\) in a given semantic context and in the LF of a knowledge attribution \(\Gamma S \text{ knows that } \Phi\) is determined by the attributor’s practical interests and by the error possibilities salient to the attributor.

Several elements of \textit{Contrastivist Definition} and the \textit{Contrastivist Attributor Principle} should be familiar from our discussion of attributor contextualism in the previous chapter. In particular, we can see that according to contrastivism a semantic context consists of at least the attributor \(i_\alpha\), her time \(t_\alpha\), location \(l_\alpha\) and world \(w_\alpha\). We can also see that a circumstance of evaluation consists of the world of the semantic context \(w_c\). This much is identical with attributor contextualist semantics. We can also add that according to contrastivism a given knowledge attribution has a context-sensitive character associated with the parameter \(r_{\text{cap}}\) of the semantic context, where the subscript ‘cap’ is used to indicate that the value of this parameter is determined in accordance with the \textit{Contrastivist Attributor Principle}. Finally, there is an obvious similarity between the \textit{Attributor Principle} and the \textit{Contrastivist Attributor Principle}, viz. the idea that the value of \(r_{\text{cap}}\) in the semantic context of a knowledge attribution
of the form $\Gamma S$ knows that $\Phi \uparrow$ is determined by the attributor’s practical interests and by the error possibilities salient to the attributor.

There are also four elements which set contrastivism apart from attributor contextualism. Firstly, the epistemic standards parameter found in attributor contextualist semantics has been replaced with a contrast set parameter $r_{\text{cap}}$. Secondly, the *Contrastivist Attributor Principle* makes reference to two different kinds of knowledge attributions: $\Gamma S$ knows that $\Phi \uparrow$ and $\Gamma S$ knows that $\Phi$ rather than $\Psi \uparrow$. Thirdly, the *Principle* makes reference to the LF of knowledge attributions. And finally, the context-sensitivity of knowledge attributions is traced not to the context-sensitive character of ‘know’ but to changes in the value of one of the knowledge relata, viz. the contrast set $r_{\text{cap}}$. Let us examine these elements in more detail.

In §1.1 and §1.3.2 we introduced and developed the notions of epistemic standards and positions as placeholders for a theory of knowledge. For example, in §2.1 we saw that according to attributor contextualism the semantics of knowledge attributions are characterised by the context-sensitive character of ‘know’ associated with the epistemic standards parameter $e_{\text{ap}}$ of semantic contexts. Contrastivists replace epistemic standards with the notion of a contrast set. That is, for contrastivists to say that in order to know some proposition $p$ a subject $S$ needs to be in an epistemic position with respect to $p$ which meets the relevant epistemic standard is just to say that $S$ needs to be in an epistemic position to rule out all the members of the contrast set $r_{\text{cap}}$. The contrast set $r_{\text{cap}}$ is constituted by contrast propositions. Schaffer (2005a, p. 255) is explicit that the notion of a contrast proposition is based on Fred Dretske’s (1970) notion of a relevant alternative, viz. $q$

\[71\] Given that epistemic standards can stand in for any sufficiency condition on knowledge other than truth or confident belief (cf. §1.3.2), including but not restricted to a subject being able to rule out members of a contrast set, it follows that attributor contextualist semantics is less restrictive than contrastivist semantics. As Robert Stalnaker (2004, p. 117, fn. 1) points out: ‘any contrastivist analysis could be reformulated as an attributor contextualist analysis that is equivalent to it, with respect to truth conditions. But the converse claim […] is false. That is, the contrastivist formulation is more restrictive’ (see also Schaffer 2005b, pp. 121-28).
counts as a contrast proposition with respect to p if and only if p entails not-q and q entails not-p (cf. §1.3.3).

Contrastivist Attributor Principle tells us that the membership of the relevant contrast set \( r_{\text{cap}} \) is determined in one of two ways (Schaffer 2004a, p. 80). A speaker can utter an overtly contrastive knowledge attribution, i.e. a sentence of the form \( r S \) knows that \( \Phi \) rather than \( \Psi \), in which case the membership of \( r_{\text{cap}} \) is just the proposition expressed by \( \Psi \). Alternatively, a speaker can utter an overtly binary knowledge attribution, i.e. a sentence of the form \( r S \) knows that \( \Phi \), in which case the membership of \( r_{\text{cap}} \) is determined by the attributor’s practical interests and by the error possibilities salient to the attributor.

Finally, Contrastivist Attributor Principle traces the contrast set parameter \( r_{\text{cap}} \) to the LF of knowledge attributions (Schaffer 2004a, pp. 76-77). The standard view in epistemology, and the one we have implicitly been working with so far, is that knowledge is a two-place or binary relation between a subject and a proposition. Accordingly, a knowledge attribution of the form \( r S \) knows that \( \Phi \) expresses a two-place relation between \( S \) and the proposition expressed by \( \Phi \). A knowledge attribution of the form \( r S \) knows that \( \Phi \) rather than \( \Psi \) expresses a two-place relation between \( S \) and the conjunction of the propositions expressed by \( \Phi \) and not-\( \Psi \).\(^72\) Contrastivists deny the standard view; according to them knowledge is a three-place or ternary relation between a subject, a proposition and a contrast set \( r_{\text{cap}} \). Therefore, a knowledge attribution of the form \( r S \) knows that \( \Phi \) expresses a three-place relation between \( S \), the proposition expressed by \( \Phi \) and \( r_{\text{cap}} \). Similarly, a knowledge attribution of the form \( r S \) knows that \( \Phi \) rather than \( \Psi \) expresses a three-place relation between \( S \), the proposition expressed by \( \Phi \) and \( r_{\text{cap}} \), where the membership of \( r_{\text{cap}} \) is just the proposition expressed by \( \Psi \). To reflect this idea, contrastivists argue that, in addition to places for the subject and the proposition which is the object of knowledge (the object or target proposition for short), knowledge attributions contain a place for the contrast set \( r_{\text{cap}} \) in LF. As a result, the

\(^72\) Following Samuel Rickless (2014, pp. 536-41), I defend this approach in §3.3.1. However, note that there are other ways one could try to account for knowledge attributions of the form \( r S \) knows that \( \Phi \) rather than \( \Psi \) (see e.g. Schaffer 2008, pp. 239-42).
context-sensitivity of knowledge attributions can be traced to changes in the value of \( r_{\text{cap}} \) in LF rather than to the context-sensitive character of ‘\text{know}’. More precisely, contrastivists can treat \( r_{\text{cap}} \) as a free variable in the LF of knowledge attributions which is assigned a value in accordance with the \textit{Contrastivist Attributor Principle}.

To see more clearly what is meant here, compare contrastivism and attributor contextualism again. Attributor contextualists make no claims about the LF of knowledge attributions, but for the sake of argument we will suppose that they trace the context-sensitivity of ‘\text{know}’ to the occurrence of a free variable \( e_{\text{ap}} \), i.e. a variable for epistemic standards which is assigned a value in accordance with the \textit{Attributor Principle}, in the LF of knowledge attributions (cf. Stanley 2000; 2005, p. 57). Since attributor contextualists do not think that knowledge attributions express three-place relations, this variable cannot be independently realised in LF; it needs to be associated with an existing element, viz. the subject of a knowledge attribution, the object proposition or the verb ‘\text{know}’. The most plausible candidate is the verb ‘\text{know}’.\(^{73}\) In contrast, given that contrastivists think knowledge attributions express three-place relations, they can say that the variable \( r_{\text{cap}} \) is independently realised in LF, as one of the relata of the knowledge relation. To represent these two analyses let us introduce some phrase-markers for ‘\( S \text{ knows that } \Phi \)’, adding dotted lines to indicate elements which occur only in LF. The first phrase-marker (Fig. 2) displays the attributor contextualist and the second (Fig. 3) the contrastivist analysis:\(^{74}\)

---

\(^{73}\) Of course, both the subject and object of a knowledge attribution can be context-sensitive. For example, assuming that quantifier domains are restricted in accordance with a context-sensitive function (see e.g. Stanley 2000) and ‘\text{nearby}’ has a context-sensitive character (see e.g. Hawthorne 2006), both the subject and object in ‘All test subjects know that baked goods are nearby’ are context-sensitive (at least according to the reading where ‘all test subjects’ does not bind ‘\text{nearby}’). However, their context-sensitivity has nothing to do with changes in epistemic standards, so it will not do to associate the epistemic standards variable \( e_{\text{ap}} \) with these expressions. The verb ‘\text{know}’ is the only remaining candidate to associate the epistemic standards variable \( e_{\text{ap}} \) with.

\(^{74}\) Notation for non-terminal symbols: \( S = \) sentence; \( \text{NP} = \) noun phrase; \( \text{VP} = \) verb phrase; \( V = \) verb; \( \text{Var} = \) variable; \( \text{DP} = \) determiner phrase; \( D = \) determiner.
One consequence of the claim that knowledge attributions express a three-place relation between a subject, a proposition and a variable contrast set $r_{\text{cap}}$ is that the context-sensitivity of knowledge attributions can be traced to changes in the value of $r_{\text{cap}}$ rather than to the context-sensitive character of ‘know’. In particular, instead of saying that a knowledge attribution like ‘Larry knows that the bank will be open on Saturday’ expresses propositions like Larry knows-LOW that the bank will be open on Saturday or Larry knows-HIGH that the bank will be open on Saturday (cf. §2.2.1), contrastivists can say that it expresses propositions like Larry knows that
the bank will be open on Saturday rather than closed or Larry knows that the bank will be open on Saturday rather than that the bank has changed its hours. Accordingly, a knowledge attribution does not pick out different knowledge relations in different semantic contexts, but different instantiations of a single knowledge relation in different semantic contexts. In §2.3.2 we saw that this view makes no difference with respect to theoretical considerations like Robust, so we will not pursue it further here.

3.2. Motivations for contrastivism

3.2.1. Linguistic motivations: contrastive knowledge attributions and focus

In the previous section we noted that, due to the similarities between attributor contextualist and contrastivist semantics, we can expect contrastivism to inherit all of the linguistic motivations for attributor contextualism (see e.g. Schaffer 2004a, pp. 79-81), viz. the ability to grant the status of semantic intuitions to felicity intuitions in Bank Cases A, B, C and D (cf. §2.2.1). In addition, Schaffer (e.g. 2004a, pp. 77-80; 2005a, pp. 244-53) argues that there are several other linguistic considerations which support contrastivism over its rivals. Schaffer’s linguistic arguments are criticised in detail by Robert Stalnaker (2004) and especially by Samuel Rickless (2014), so we will not deal with all of them here. We will look at just two for illustration, viz. the argument from overtly contrastive knowledge attributions and the argument from focus.

The argument from overtly contrastive knowledge attributions cites the existence of knowledge attributions of the form $\langle r \rangle S$ knows that $\Phi$ rather than $\Psi$ as evidence that all knowledge attributions contain a contrast set variable $r_{\text{cap}}$ in LF (Schaffer 2004a, pp. 77-78). The thought here is that one can articulate the LF of a knowledge attribution of the form $\langle r \rangle S$ knows that $\Phi$ by replacing it with a knowledge attribution of the form $\langle r \rangle S$ knows that $\Phi$ rather than $\Psi$, i.e. by replacing
an overtly binary knowledge attribution with an overtly contrastive one. Following
the convention introduced in the previous section, we can represent this idea by
saying that Figure 4 below is an articulation of Figure 3 above.75

Figure 4: the articulated syntax and LF of $S$ knows that $\Phi$ according to
contrastivism

```
Figure 4: the articulated syntax and LF of $S$ knows that $\Phi$ according to
contrastivism
```

Schaffer (2004a, pp. 77-78) points out that this is a standard way of testing
for elements in LF. For instance, he argues that we can articulate the three-place LF
of the predicate ‘prefer’ by replacing overtly binary preference attributions $S$
prefers $\Phi$ with overtly contrastive preference attributions $S$ prefers $\Phi$ rather than
$\Psi$.

The argument from focus is similar to Dretske’s (1981, p. 59) suggestions
regarding how one might go about determining the set of relevant alternatives for a
given knowledge attribution, which we touched on in §1.3.3. Suppose we are
considering whether Larry knows that someone stole something belonging to him,
and I utter ‘Larry knows that Jeff stole his laptop’ (stress on ‘Jeff’). ‘Jeff’ is the
focus here, and Dretske’s suggestion is that the truth of the uttered sentence should
be evaluated relative to a set of people other than Jeff. Now suppose I utter ‘Larry
knows that Jeff stole his laptop’ (stress on ‘laptop’). ‘Laptop’ is the focus here, and

---

75 Notation for non-terminal symbols: as in fn. 74, and Adp P = adverbial phrase.
Dretske’s suggestion is that the truth of the uttered sentence should be evaluated relative to a set of objects other than the laptop. Schaffer (2004a, p. 79) claims that these focus differences induce differences in the membership of the contrast set \( r_{\text{cap}} \). Thus, one can substitute a focused overtly binary knowledge attribution \( \forall S \) knows that \( \Phi \) for an overtly contrastive knowledge attribution \( \forall S \) knows that \( \Phi \) rather than \( \Psi \), where \( \Psi \) expresses the alternatives relevant to the focused knowledge attribution. For instance, one may be able to substitute ‘Larry knows that Jeff stole his laptop’ above for ‘Larry knows that Jeff rather than Suzie stole his laptop’, or ‘Larry knows that Jeff stole his laptop’ for ‘Larry knows that Jeff stole his laptop rather than his phone’.

3.2.2. Theoretical motivations: Role

As before, the similarities between attributor contextualist and contrastivist semantics suggest contrastivism inherits all of the theoretical motivations for attributor contextualism, viz. the ability to account for Closure and Anti-Scepticism (Schaffer 2005a, pp. 259-65).\(^76\) In addition, Schaffer (2004a, pp. 84-85; 2005, pp. 237-44) argues that contrastivism is a more natural fit for Role than its rivals.

*Role*: Knowledge attributions play certain social roles, such as highlighting good informants about the truth of the proposition embedded under a knowledge attribution.

To get a good understanding of Schaffer’s account here, we will first need to expand our characterisation of *Role*. Following earlier work by Edward Craig

---

\(^76\) Some critics (see e.g. Kelp 2011) argue that contrastivists cannot respect both Closure and Anti-Scepticism (cf. Schaffer 2007). Similarly, just as some critics think that attributor contextualism cannot really address Anti-Scepticism (§2.2.2, fn. 54), so we might think that contrastivism cannot really address it either, given the parallels between attributor contextualism and contrastivism. Proper examination of these issues lies beyond the scope of this work, so we will grant that contrastivism is consistent with Closure and Anti-Scepticism for the sake of the argument.
Christopher Hookway (1996) and others, Schaffer argues that a knowledge attribution picks out a person, viz. the subject of the knowledge attribution, who is able to answer some relevant question (Schaffer 2005a, p. 236) and to discriminate between the state of affairs represented by the object proposition and some other state of affairs (Schaffer 2005a, p. 243). Call these the abilities to answer the question and to discriminate for short. The relevant question is either explicitly stated by a speaker in a conversation or recovered from the conversational context by looking at the object proposition. For instance, if I utter a sentence which expresses the proposition that Larry knows that the drink is Coke, the object proposition is that the drink is Coke, which is an answer to the question ‘What drink is it?’.

Accordingly, Larry is understood as someone with the ability to answer the question ‘What drink is it?’ and to discriminate between the state of affairs where the drink is Coke and some other states of affairs.

A well-formed question determines a pair of a proposition which is the correct answer to the question and a set of propositions which are the rejected answers to the question (Schaffer 2005a, p. 241). More formally, we can say that a well-formed question determines a pair \(<p, r_{cap}\>\), where \(p\) is the proposition which is the accepted answer to the question and \(r_{cap}\) is the set of propositions which are the rejected answers to the question. For example, the question ‘What drink is it?’ is well-formed, and may determine the pair \(<\text{Coke}, \{\text{Pepsi, Budget Cola}\}>\), where ‘Coke’ is the correct answer to the question and ‘Pepsi’ and ‘Budget Cola’ are the incorrect answers to the question.\(^{77}\) In light of this, in our example above Larry is understood as someone with the abilities to answer that the drink is Coke and to discriminate between the state of affairs where the drink is Coke and the states where it is Pepsi or Budget Cola.

Finally, Schaffer (2005a, pp. 241-42) argues that knowledge attributions help to progress and to keep track of the progress of enquiry. Following Jaakko Hintikka (1975), he analyses enquiry as a series of questions and answers. Given that answers to questions are recoverable from knowledge attributions and that knowledge attributions pick out persons who are able to answer the relevant question, it is easy

\(^{77}\) Conversely, questions which determine a set of only one proposition, i.e. questions which only have one choice of answer (like rhetorical questions), are not well-formed (Schaffer 2007, pp. 240-44).
to see how knowledge attributions can help to progress and to keep track of the progress of enquiry.

In sum, Schaffer believes that knowledge attributions pick out persons who are able to answer the relevant questions, understood as pairs \(<p, \, r_{cap}>\), and to discriminate between the state of affairs represented by \(p\) and the states of affairs represented by propositions which are members of \(r_{cap}\). Since enquiry is just a series of questions and answers, knowledge attributions also help to progress and keep track of the progress of enquiry.

To demonstrate how Schaffer’s take on Role might work in practice, consider the following exchange between Suzie, Larry and Cheryl (cf. Schaffer 2004, p. 79):

Suzie: What drink is it? I think it might be Pepsi or Budget Cola.
Larry: It’s Coke, definitely not Pepsi or Budget Cola.
Cheryl (later): Larry knows that the drink is Coke rather than Pepsi or Budget Cola.

Let us put information which is recoverable from the conversational context in square brackets, and information which is contributed following Role in round brackets. Then we get something like the following analysis of this conversation:

(Enquiry stage 1) [Suzie and Larry know that they are drinking a drink.]

Suzie: What drink is it? I think it might be Pepsi or Budget Cola (a well-formed question; determines the set \(<\text{Coke}, \{\text{Pepsi, Budget Cola}\}\>).

(Enquiry stage 2)

Larry: It’s Coke, definitely not Pepsi or Budget Cola (an answer to the question ‘What drink is it?; picks out Coke and rules out Pepsi and Budget Cola).
Cheryl: Larry knows that the drink is Coke rather than Pepsi or Budget Cola (Larry is the person with the ability to answer the question ‘What drink is it?’; Larry can discriminate between the state of affairs where the drink is Coke and the states of affairs where the drink is Pepsi, or where the drink is Budget Cola).

Contrastivism is a natural fit for Role. According to contrastivism the object proposition p and the contrast set r_cap, which form the correct-incorrect answer pair <p, r_cap> according to Role, the relation between a subject and this pair and the ability to rule out all the members of r_cap in a given semantic context are represented in the LF and the semantics of knowledge attributions. For example, in the conversation above the pair <Coke, {Pepsi, Budget Cola}>, the relation between Larry and this pair and Larry’s ability to rule out Pepsi and Budget Cola are represented in the LF and the semantics of ‘Larry knows that the drink is Coke rather than Pepsi or Budget Cola’. The representation of the correct-incorrect answer pair in the LF and the semantics of knowledge attributions maintains the link between knowledge attributions and questions. Moreover, given that enquiry is a set of questions and answers, it maintains the link between knowledge attributions and enquiry. The representation of the relation between a subject and a correct-incorrect answer pair in the LF and the semantics of knowledge attributions can be seen to imply that the subject is able to answer the question which corresponds to the correct-incorrect answer pair. Similarly, it can be seen to imply that the subject is able to discriminate between the state of affairs represented by the correct answer and the states of affairs represented by the incorrect answer.

Although contrastivism is a natural fit for Role, we have yet to show that it is the best fit for Role. Schaffer’s argument here comes down to the following passage:

‘I suspect that Ksp [the view that knowledge is a two-place relation between a subject and a proposition] induces systematic problems for lack of a contrast slot. Nothing in the Ksp relation logs the queried alternatives, the stage of
inquiry, or the discriminatory task. So there is no natural fit to fingerling answerers, modeling inquiry, and measuring perception. […] I think it fair to conclude, at the least, that [contrastivism] provides the more natural fit to the contrast-relative tasks of answering, inquiry, and discrimination’ (Schaffer 2005a, p. 244).

In other words, Schaffer believes that contrastivism is the best fit for Role because the key aspects of Role are represented in the LF and the semantics of knowledge attributions.

3.3. Against contrastivism

3.3.1. Linguistic problems: contrastive knowledge attributions and focus

Just as contrastivism inherits the linguistic motivations for attributor contextualism, so it inherits the linguistic problems. In particular, following the reasoning in §2.3.1, contrastivists are committed to semantic error at least with respect to some utterances of embedded knowledge attributions.\(^78\) In addition, there are significant problems with the arguments which are supposed to favour contrastivism over its rivals (see e.g. Rickless 2014; Stalnaker 2004).

\(^78\) Specifically, because the contrast set \(r_{\text{cap}}\) might be different across an unembedded and an embedded knowledge attribution, the semantic value of the unembedded knowledge attribution might be different from the semantic value of the embedded knowledge attribution. The exception is overtly contrastive unembedded and embedded knowledge attributions. If Larry utters ‘I know that \(\Phi\) rather than \(\Psi\)’ and I utter ‘Larry said that he knows that \(\Phi\) rather than \(\Psi\), the proposition expressed by \(\Psi\) is the value of the contrast set parameter \(r_{\text{cap}}\) both in Larry’s and in my semantic contexts, so the semantic value of the knowledge attribution is preserved from Larry’s to my semantic context (cf. Schaffer 2004a, pp. 83-84). Quite generally, one can preserve the semantic value of a knowledge attribution across embedding and non-embedding constructions by explicitly articulating the contrast set \(r_{\text{cap}}\).
Firstly, we saw that the existence of overtly contrastive knowledge attributions, i.e. knowledge attributions of the form $\exists^r S \text{ knows that } \Phi \text{ rather than } \Psi \neg$, is supposed to provide evidence that all knowledge attributions contain a contrast set variable $r_{cap}$ in LF. However, Robert Stalnaker (2004, p. 109) and Samuel Rickless (2014, pp. 535-36) argue that this proves too much. Take any predicate which is usually regarded as two-place, like ‘love’ or ‘spend’. For any overtly binary attribution involving this predicate, like $\exists^r S \text{ loves } \Phi \neg$ or $\exists^r S \text{ spends } \Phi \neg$, one can find an overtly contrastive attribution, like $\exists^r S \text{ loves } \Phi \text{ rather than } \Psi \neg$ (e.g. ‘Larry loves board games rather than sports’) or $\exists^r S \text{ spends } \Phi \text{ rather than } \Psi \neg$ (e.g. ‘Larry spends money rather than store credit’). If Schaffer’s diagnostic were genuine, we would have to conclude that both ‘love’ and ‘spend’ are three-place predicates. Instead of the overtly contrastive diagnostic, Stalnaker (2004, p. 109) and Rickless (2014, pp. 535-36) propose one based on the preposition ‘to’, i.e. only genuinely three-place predicates admit of grammatical constructions involving ‘to’. Given that $\exists^r S \text{ prefers } \Phi \text{ to } \Psi \neg$ but not $\exists^r S \text{ knows } \Phi \text{ to } \Psi \neg$ is grammatical, according to this diagnostic ‘prefer’ but not ‘know’ is a three-place predicate.

Furthermore, Peter Baumann (2008, pp. 191-92) points out that there are no plausible contrast sets for attributions of mathematical and conceptual knowledge. For instance, it is difficult to find a contrast set for a knowledge attribution like ‘Larry knows that $2 + 2 = 4$’ or ‘Larry knows that bachelors are unmarried men’. Of course, we could say that the contrast set here is just the negation of the object proposition, as in ‘Larry knows that $2 + 2 = 4$ rather than not that $2 + 2 = 4$’ or ‘Larry knows that bachelors are unmarried men rather than not that bachelors are unmarried men’, but this is unconvincing. Firstly, in §3.2.1 we saw that one is supposed to be able to articulate the LF of a binary knowledge attribution by uttering a contrastive knowledge attribution. However, I am not sure that sentences like ‘Larry knows that $2 + 2 = 4$ rather than not that $2 + 2 = 4$’ and ‘Larry knows that bachelors are unmarried men rather than not that bachelors are unmarried men’ can be uttered felicitously. Secondly, allowing negations of object propositions into the contrast set $r_{cap}$ may be ad hoc. In Schaffer’s examples the members of $r_{cap}$ do not admit of the same kinds of inferences as the negations of object propositions. For instance, it is possible to infer directly that the negation of an object proposition is false on the
basis of the truth of the object proposition and the law of excluded middle (i.e. either some proposition or the negation of that proposition is true). In contrast, it is not possible to infer directly that a member of $r_{\text{cap}}$ in Schaffer’s examples is false on the basis of the truth of the object proposition and the law of excluded middle. For example, one cannot infer directly from the truth of the proposition that the drink is Coke and the law of excluded middle that the proposition that the drink is Pepsi is false. This suggests that negations of the object proposition contrast with the object proposition in a different way to the members of $r_{\text{cap}}$ in Schaffer’s examples. In turn, this may suggest that allowing negations of object propositions into the contrast set $r_{\text{cap}}$ in order to support contrastivism about mathematical and conceptual knowledge is ad hoc.

The second linguistic motivation for contrastivism we considered was the argument from focus. In particular, we saw that Schaffer thinks focus differences induce differences in the contrast set $r_{\text{cap}}$ and therefore in the LF and the semantic value of knowledge attributions. Pace Schaffer however, the standard analysis of focus phenomena is pragmatic, i.e. it is usually thought that at least some instances of focus make a contribution to the pragmatic context of an utterance (cf. §1.4.2) rather than to its semantic value (Rickless 2014, pp. 18-19). Schaffer gives no independent reasons to think that focus phenomena induce differences in the LF and the semantic value of an uttered sentence.

Even if the arguments from overtly contrastive knowledge attributions, focus and other phenomena fail (Schaffer 2004a, pp. 82-90; cf. Stalnaker 2004; Rickless 2014), Schaffer could still claim that his opponents do not have a good account of overtly contrastive knowledge attributions and therefore that contrastivism comes out as a superior view on balance. This is not the case; we have already noted (cf. §3.1) that it is possible to analyse an overtly contrastive knowledge attribution on the model of a binary knowledge attribution, viz. as a relation between a subject and the conjunction of the object proposition and the contrast proposition(s) (Rickless 2014, pp. 536-41). In response, Schaffer (2008, pp. 239-40) argues that this analysis is linguistically implausible. In particular, he points out that there are no conjunctions in the surface structure of sentences of the form $\square S$ knows that $\Phi$ rather than $\Psi$, so our only motivation for positing conjunctions in the LF of these sentences is to
preserve the binary account of knowledge. The trouble is that this kind of argument cuts both ways: there are no contrast sets in the surface structure of sentences of the form $\Gamma S$ knows that $\Phi$, so Schaffer’s only motivation for positing contrast sets in the LF of these sentences is to preserve the contrastivist account of knowledge (Baumann 2008, p. 192; cf. Rickless 2014, p. 539). Moreover, there is some evidence that it is more plausible that there are conjunctions in the LF of sentences of the form $\Gamma S$ knows that $\Phi$ rather than $\Psi$ than that there are contrast sets in the LF of sentences of the form $\Gamma S$ knows that $\Phi$, viz. Baumann’s point that there are no plausible contrast sets for certain kinds of knowledge attributions.

3.3.2. Theoretical problems part I: abilities to answer and discriminate

As we might expect by now, contrastivism inherits the theoretical problems from attributor contextualism. Moreover, it turns out that Schaffer is wrong about Role; knowledge attributions do not always pick out persons with the abilities to answer the relevant question or to discriminate. Take the ability to answer the relevant question first and consider the following three cases:

Jeff’s Drugs A

Suzie and Cheryl are investigating where Jeff stashed his drugs. Cheryl is aware that Larry knows that Jeff stashed his drugs in the suitcase and that Larry has Locked-in Syndrome (LIS) and cannot communicate in any way, but Suzie is not. Suzie says, ‘Who can say where the drugs are?’ Cheryl says, ‘Larry knows that the drugs are in the suitcase’.

---

79 Specifically, because contrastivists believe that a single knowledge attribution can pick out different instantiations of a knowledge relation in different semantic contexts (cf. §3.1), their view is in conflict with Robust (cf. §2.3.2).
Jeff’s Drugs B

Suzie and Cheryl are investigating where Jeff stashed his drugs. Cheryl is aware that Larry knows that Jeff stashed his drugs in his suitcase, but Suzie is not. Suzie and Cheryl are both aware that Larry has LIS and cannot communicate in any way. Suzie says, ‘Who can say where the drugs are?’. Cheryl says, ‘Larry knows that the drugs are in the suitcase’.

Jeff’s Drugs C

Suzie and Cheryl are investigating where Jeff stashed his drugs. Cheryl is aware that Larry knows that Jeff stashed his drugs in the suitcase and that Larry has LIS and cannot communicate in any way, but Suzie is not. Suzie says, ‘Who can say where the drugs are?’. Cheryl says, ‘Larry knows that the drugs are in the suitcase, but he can’t tell you that’.

In all three cases Suzie is looking for someone with the ability to answer the question where the drugs are and Cheryl replies that Larry knows that the drugs are in the suitcase. If Schaffer is right about Role, i.e. if it is part of the semantics of knowledge attributions that they pick out someone who is able to answer the relevant question, then we should expect Cheryl’s utterance to communicate that Larry is able to answer the question where the drugs are in all three cases. However, it seems obvious that Cheryl’s utterance does not communicate this in Jeff’s Drugs B or C. Moreover, it seems obvious that although Cheryl’s utterance communicates this in Jeff’s Drugs A, her utterance is infelicitous. Given the presumption in favour of treating felicity intuitions as semantic intuitions (cf. §1.2, FATSO), this provides additional evidence that it is not part of the semantics of knowledge attributions that they pick out someone who is able to answer the relevant question.

Schaffer might respond that Jeff’s Drugs A to C trade on the wrong sense of the ability to answer the question. That is, they trade on the ability to utter an answer to a question, but there is a sense in which one is able to answer a question without being able to utter the answer. For example, Schaffer (2005a, p. 238) argues that
'animals may be thought to have the ability to answer [...] that is, animals may have the cognitive basis by which the answer is reached, though they lack the means to express it' (original emphasis). He could extend this thought to Jeff’s Drugs A to C, i.e. he could argue that although Larry does not have the ability to utter the answer to Suzie’s question, nonetheless Larry has the cognitive basis to reach the answer and therefore the ability to answer. In light of this, even if Cheryl’s utterance fails to communicate that Larry is able to utter the answer to Suzie’s question, nonetheless it could still communicate that Larry is able to answer.

There is at least one problem with this response. In §3.2.2 we saw that Schaffer motivates the link between knowledge attributions and the ability to answer a question by appeal to Craig’s and Hookway’s work on the social role of knowledge attributions. In particular, Craig (1990, pp. 11-17) believes that knowledge attributions pick out good informants about the truth of the object propositions, and I take it Schaffer’s reasoning is roughly that good informants can (inter alia) answer the relevant question. However, by definition, one is an informant only to the extent that one is able to utter the relevant information. Therefore, good informants are able answer the relevant question in both the sense of having the cognitive basis to reach the answer and in the sense of being able to utter it, i.e. in the weak and the strong sense of the ability to answer. This leaves Schaffer with a dilemma. On one hand, his argument for the link between knowledge attributions and the ability to answer the relevant question is based on work which supports both the weak and the strong senses of the ability to answer. On the other hand, Schaffer needs to say that knowledge attributions are linked only with the weak sense of the ability to answer in order to defend contrastivism. If he opts for the first horn, then he needs to explain why the ability to answer the question is not communicated in Jeff’s Drugs A to C. If he opts for the second horn, then he needs to provide some motivation for thinking that knowledge attributions are linked only with the weak sense of the ability to answer.

Similar observations hold for the link between knowledge attributions and the ability to discriminate. Consider three more cases:
Discerning Larry A

Cheryl and Suzie are wondering whether they are drinking Coke, Pepsi or Budget Cola. Larry saw that Cheryl’s and Suzie’s drink was poured out of a Coke bottle. He overhears their conversation and says, ‘I know that you are drinking Coke rather than Pepsi or Budget Cola’.

Discerning Larry B

Cheryl and Suzie know that Larry has lost his sense of sight and taste. They are wondering whether they are drinking Coke, Pepsi or Budget Cola. Larry overhears their conversation and says, ‘I know that you are drinking Coke rather than Pepsi or Budget Cola’.

Discerning Larry C

Cheryl and Suzie are wondering whether they are drinking Coke, Pepsi or Budget Cola. Larry overhears their conversation and says, ‘I know that you are drinking Coke’.

If Schaffer is right about Role, i.e. if it is part of the semantics of knowledge attributions that they pick out someone who is able to discriminate between one state of affairs and another, then we should expect Larry’s utterance to communicate that he is able to discriminate between Coke, Pepsi and Budget Cola in all three cases. However, it seems obvious that Larry’s utterance communicates that he is able to discriminate in Discerning Larry A and B, but does not communicate this in Discerning Larry C. Moreover, it seems obvious that Larry’s utterance communicates one sense of the ability to discriminate in Discerning Larry A and another in B. In light of this, even if it were part of the semantics of knowledge attributions that they pick out someone who is able to discriminate between one state of affairs and another, the correct account of their semantics would need to be more nuanced than contrastivism.
Further reflection on the nature of knowledge and discrimination supports our conclusions here. In Discerning Larry B and C there are many ways in which Larry could have come to know that the drink is Coke, none of which need to require Larry to be able to discriminate between Coke, Pepsi and Budget Cola. For instance, Larry may know that the drink is Coke because he knows that he is in a town owned by Coca-Cola and Coca-Cola do not stock anything other their own products on their premises. There are also several ways to discriminate between Coke, Pepsi and Budget Cola, not all of which need to be available to Larry in order for him to count as being able to discriminate between Coke, Pepsi and Budget Cola. For example, Larry may be able to discriminate between Coke, Pepsi and Budget Cola based on their price and packaging but not based on their taste.

Given that neither the ability to answer the question nor the ability to discriminate is always communicated by an utterance of a knowledge attribution, contrastivists are mistaken to think that these abilities are part of the semantics of knowledge attributions. Nonetheless, they could still argue that contrastivism is preferable to its rivals for lack of a better account of the connection between knowledge attributions and Role. In order to block this line of argument, in the next section I will sketch an alternative account of the connection between knowledge attributions and Role. This account will be based on the notion of pragmatic contexts, Stalnaker’s model of assertion and Gricean implicature which we set out in §1.4.2. At least as far as I can tell, it is compatible with any view of the semantics of knowledge attributions, so contrastivism has no special advantage here.\(^8\)

### 3.3.3. Theoretical problems part II: a pragmatic account of Role

Recall that on Stalnaker’s model of assertion each speaker engaged in a conversation has a set of propositions she takes for granted (the background propositions), which corresponds to a set of worlds compatible with the truth of these

\(^8\) Indeed, it is perhaps telling that, although Craig thinks that the semantics of knowledge attributions are consistent with Role, he does not think Role needs to be represented in the semantics of knowledge attributions and explicitly defends a version of moderate invariantism (Craig 1990, pp. 162-67).
propositions (the context set). Speakers typically share a common ground, characterised in terms of the overlap between their background propositions and context sets. The aim of assertion is to reduce the speakers’ context sets. Recall as well that for contrastivists a well-formed question determines a pair \(<p, r_{\text{cap}})>\), where \(p\) is the accepted answer to the question and \(r_{\text{cap}}\) is the set of rejected answers to the question. In Stalnaker’s model, this pair will correspond to a set containing the possible worlds compatible with the truth of \(p\) and another set containing the possible worlds compatible with the truth of the propositions in \(r_{\text{cap}}\). Given that \(p\) entails the negation of every proposition in \(r_{\text{cap}}\) and every proposition in \(r_{\text{cap}}\) entails the negation of \(p\) (cf. §3.1), the set of possible worlds compatible with the truth of \(p\) and the set of possible worlds compatible with the truth of the propositions in \(r_{\text{cap}}\) will be mutually exclusive. Thus, if a speaker adds \(p\) to her background propositions, she will thereby rule out the set of possible worlds compatible with the truth of the propositions in \(r_{\text{cap}}\) from her context set. I take it as obvious that an answer to a well-formed question is an assertion. To assert a proposition is, amongst other things, to allow one’s conversational participants to add it to their background propositions, so to answer a question which determines the set of propositions \(<p, r_{\text{cap}})>\) is, amongst other things, to add the proposition \(p\) to the background propositions of one’s conversational participants, and hence to rule out the set of possible worlds incompatible with the truth of the propositions in \(r_{\text{cap}}\) from their context sets.

These observations tell us that we can model questions and answers within Stalnaker’s account. Since enquiry is just a series of questions and answers, they also tell us that we can model enquiry within Stalnaker’s account. Moreover, we can track the progress of enquiry by checking the membership of the conversational participants’ context sets at any given time during the enquiry. For instance, if the conversational participants’ context sets at time \(t_1\) are smaller than their context sets at an earlier time \(t_0\), then enquiry has progressed between \(t_0\) and \(t_1\), and its progress is measured in terms of those possible worlds which have been ruled out from the conversational participants’ context sets between \(t_0\) and \(t_1\).

In §1.4.2 we assumed that utterances of knowledge attributions are assertions and that if a speaker asserts a sentence \(\Phi\), and \(\Phi\) expresses a proposition \(q\) which is usually taken to presuppose another proposition \(p\), then at the very least the speaker
will presuppose p. In light of *Factivity*, knowledge attributions carry the presupposition that the object proposition is true. For instance, if \( \Phi \) expresses the true proposition that S knows that p, then p is true. In line with our assumptions and terminology, we will call the proposition that S knows that p the live proposition and p the background proposition. Although typically the speaker will presuppose p when asserting a sentence which expresses the proposition that S knows that p, this need not be the case for the speaker’s audience; it may be that p gets added to the audience’s background propositions as a result of the speaker’s assertion. That is, if a speaker asserts a sentence which expresses the proposition that S knows that p, the audience may already be aware that p, in which case the speaker’s assertion will perform only one role: it will add the proposition that S knows that p to the conversation as a live proposition. Alternatively, if a speaker asserts a sentence which expresses the proposition that S knows that p, the audience may be unaware that p, in which case the assertion will perform two roles: it will add p to the audience’s background propositions, and it will add the proposition that S knows that p to the conversation as a live proposition.

The process described in the previous paragraph is similar to the one which figures in answering questions and in enquiry generally. Specifically, earlier we saw that speakers can directly answer a question which determines a pair \(<p, r_{\text{cap}}>> by asserting a sentence which expresses p. We can now see that speakers can also indirectly answer a question which determines a pair \(<p, r_{\text{cap}}>> by asserting a knowledge attribution which embeds p. That is, in light of *Factivity* asserting a sentence which expresses the proposition that S knows that p adds p to the conversational participants’ background propositions. Therefore, asserting a sentence which expresses the proposition that S knows that p indirectly performs the same function as asserting a sentence which expresses p. For example, suppose Suzie asks ‘What drink is it?’, which determines the set \(<\text{Coke, \{Pepsi, Budget Cola\}}>\, and Cheryl later asserts ‘Larry knows that the drink is Coke’, which we will assume expresses the proposition that Larry knows that the drink is Coke. Clearly, Cheryl’s assertion is not a direct reply to Suzie’s question. Nonetheless, given that the proposition that the drink is Coke is embedded under the proposition that Larry knows that the drink is Coke and *Factivity*, there is an obvious sense in which
Cheryl’s assertion contains the answer to Suzie’s question and thus constitutes an indirect reply to Suzie.

So far our account captures the link between asserted knowledge attributions, questions and enquiry. As we might expect, given the complications we encountered in §3.3.2, the account of the link between asserted knowledge attributions and the abilities to answer and to discriminate will need to be more nuanced. Specifically, we will need to explain how Cheryl’s utterance in Jeff’s Drugs A communicates the ability to answer the question (in the strong sense), but not in Jeff’s Drugs B or C, and moreover why Cheryl’s utterance is infelicitous in A but not in B or C. Similarly, we need to explain how Larry’s utterance in Discriminating Larry A, but not in B or C, communicates the ability to discriminate. The combination of Stalnaker’s notion of common ground and Gricean implicature can provide the explanation (cf. Rickless 2014, pp. 553-54).

According to Grice’s (1989, p. 26) Quantity maxim, in Jeff’s Drugs A to C Suzie’s and Cheryl’s conversational contributions ought to be no more and no less informative than required for the purposes of the conversation. If Suzie or Cheryl makes an utterance which violates this Maxim, then her utterance will be interpreted in such a way as to bring it in compliance with the Maxim, unless she or the conversational context blocks this interpretation (see below). That is, her utterance will implicate a proposition or propositions over and above the proposition expressed by the uttered sentence.81

In Jeff’s Drugs A Suzie is looking for someone who can say where the drugs are. This should be obvious to both Suzie and Cheryl as reasonably competent speakers. Given this and the Quantity maxim, it is reasonable for Suzie to construe the answer Cheryl gives to her question as picking out someone who can say where the drugs are, and it is reasonable for Cheryl to expect Suzie to construe her answer in this way. Therefore, although Cheryl picks out someone who knows where the drugs are but not someone who can say where the drugs are when she asserts ‘Larry knows where the drugs are’, Suzie will think, and Cheryl should expect her to think, that the person Cheryl picks out not only knows but can say where the drugs are. In

81 It might be that the maxim at work in Jeff’s Drugs A to C and Discerning Larry A to C is Relation (Grice 1989, p. 27) rather than Quantity. This does not matter for our purposes.
other words, given the pragmatic context shared by Suzie and Cheryl, when Cheryl asserts ‘Larry knows that the drugs are in the suitcase’, she implicates that Larry is able to say where the drugs are.

In Jeff’s Drugs B and C Suzie is also looking for someone who can say where the drugs are. However, in B it is part of Cheryl’s and Suzie’s common ground that Larry cannot communicate, which cancels any implicature to the effect that Larry is able to say where the drugs are. In C it is not part of Cheryl’s and Suzie’s common ground that Larry cannot communicate, but Cheryl explicitly cancels any implicature to the effect that Larry is able to say where the drugs are by adding ‘but he can’t tell you’ (see Grice 1989, p. 44).

Something similar can be said about Discerning Larry A to C. In Discerning Larry A Larry’s utterance ‘I know that the drink is Coke rather than Pepsi or Budget Cola’ communicates that Larry is able to discriminate between Coke, Pepsi and Budget Cola. We will recall that according to the binary analysis of knowledge attributions ‘I know that the drink is Coke rather than Pepsi or Budget Cola’ expresses the proposition that Larry knows that the drink is Coke and that the drink is not Pepsi or Budget Cola. This is a conjunction of the proposition that the drink is Coke and the disjunction of the propositions that the drink is not Pepsi and that the drink is not Budget Cola. We will also recall that usually any speaker who asserts a knowledge attribution will already have the proposition embedded under the knowledge attribution amongst her background propositions. Thus, when Larry asserts ‘I know that the drink is Coke rather than Pepsi or Budget Cola’ the propositions that the drink is Coke, that the drink is not Pepsi and that the drink is not Budget Cola will already be amongst his background propositions. The speaker’s audience may or may not have the embedded proposition amongst their background propositions. For the sake of the argument let us assume that Cheryl and Suzie do not already have the propositions that the drink is Coke, that the drink is not Pepsi and that the drink is not Budget Cola amongst their background propositions. Then Larry’s assertion will add these propositions to Cheryl’s and Suzie’s background propositions. Now, as reasonably competent speakers, Larry, Suzie and Cheryl know that a drink may be a mixture of Coke, Pepsi and Budget Cola, but that it cannot be wholly Coke, wholly Pepsi and wholly Budget Cola at the same time. Therefore,
Larry, Suzie and Cheryl can easily deduce from the fact that a particular drink is Coke that it is not Pepsi and that it is not Budget Cola. As a result, by adding all three propositions – that the drink is Coke, that the drink is not Pepsi and that the drink is not Budget Cola – to their background propositions, Larry, Suzie and Cheryl achieve nothing over and above adding only the proposition that the drink is Coke to their background propositions. In light of this, Larry’s assertion ‘I know that the drink is Coke rather than Pepsi or Budget Cola’ expresses more information than is required for the purposes of the conversation, violating the Quantity maxim and triggering an implicature. A plausible candidate for the implicated proposition is just that Larry is able to discriminate between Coke, Pepsi and Budget Cola in some capacity.

The same analysis covers Discerning Larry B; however, note that because it is part of Suzie’s, Cheryl’s and Larry’s background propositions that Larry has no sense of sight or taste, the implicated proposition is that Larry is able to discriminate between Coke, Pepsi and Budget Cola in a capacity which may be different from his capacity in Discerning Larry A. In CLarry provides no more and no less information than required, so his utterance ‘I know that the drink is Coke’ does not implicate that Larry is able to discriminate between Coke, Pepsi and Budget Cola.

This completes our account of Role, and in particular of the link between asserted knowledge attributions, questions, enquiry and the abilities to answer the question and to discriminate. As we can see, the account captures all the elements which contrastivism is supposed to capture and offers a more nuanced view of the link between knowledge attributions and the abilities to answer the question and to discriminate. Therefore, it blocks the argument that contrastivism is preferable to its rivals for lack of a better account of the connection between knowledge attributions and Role.

3.4. Conclusion: the contrastivist scorecard

We are now in a position to review the scorecard for contrastivism (Table 3):
**Table 3: contrastivist scorecard**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contrastivism</td>
<td>Yes; Bank Cases A, B, C and D. <strong>Overtly contrastive attributions</strong></td>
<td>Yes; <strong>Closure and Anti-Scepticism. Role.</strong></td>
<td>Yes</td>
<td>Yes: Bank Case E.</td>
<td>No</td>
<td><strong>Yes: Robust</strong></td>
<td></td>
</tr>
</tbody>
</table>

Throughout this chapter, we have noted that contrastivism inherits all of the linguistic and theoretical motivations and problems from attributor contextualism, so we simply copy these across. We have also seen that contrastivists believe linguistic evidence from overtly contrastive knowledge attributions and focus and the theoretical consideration Role favour contrastivism over attributor contextualism and other views in the knowledge attribution debate. In fact, in §3.3.1 we established that the arguments from overtly contrastive knowledge attributions and focus are mistaken, so we cross these out. Moreover, in §3.3.2 we saw that contrastivists are working with the wrong version of Role. In particular, they wrongly believe that knowledge attributions are always connected with the abilities to answer the relevant question and to discriminate, so they build these into the semantics of knowledge attributions. Moreover, in §3.3.3 we gave a fairly simple account of the connection between knowledge attributions and the correct understanding of Role, based on some general observations about assertion, Gricean implicature and the factivity of knowledge attributions. At least as far as I can tell, this account is compatible with any view of the semantics of knowledge attributions under discussion here.
Therefore, we also cross out Role from the contrastivist scorecard. This leaves contrastivism with all the same motivations and problems as attributor contextualism, i.e. pace Schaffer, the two views stand or fall together. In the previous chapter (cf. §2.5), following FATSO, we presumed that attributor contextualism is false because it is in conflict with Robust. By the same token, we can presume that contrastivism is false and move on to the next view.
Chapter 4

Subject-Sensitive Invariantism

4.1. Subject-sensitive invariantist semantics

Subject-sensitive invariantism (hereafter SSI) was developed by Jeremy Fantl and Matthew McGrath (2002; 2007), John Hawthorne (2004) and Jason Stanley (2005) primarily as an alternative to attributor contextualism. As a result, it is often viewed as the main competitor to attributor contextualism (see e.g. DeRose 2009, Ch. 6 & 7). In parallel with attributor contextualism, SSI is motivated by two types of considerations: its ability to account for felicity intuitions generated by utterances of knowledge attributions in a range of cases, and its ability to respect a number of theoretical considerations. In this section I will give an outline of SSI semantics based on KS-System from §1.4.1. In the next two sections I will explain the linguistic and theoretical motivations for SSI, and in the last few sections I will offer some arguments against SSI. SSI proponents are explicitly committed to the claim that ordinary speakers are in semantic error in some Bank Cases (see e.g. Hawthorne 2004, pp. 162-66; Stanley 2005, pp. 99-104). However, they believe that they can explain why speakers are in semantic error in these cases. I will analyse all the SSI explanations and argue that none of them are satisfactory. SSI proponents also

---

82 Hawthorne (2004, p. 157) calls it sensitive moderate invariantism; Stanley (2005, p. 85) prefers the label interest-relative invariantism. Fantl and McGrath (2007) are less interested in the semantics of knowledge attributions than they are in the consequences of a view like sensitive moderate invariantism for epistemology, so they speak about impurism (see below) and the pragmatic encroachment into epistemology. There are differences between the various views, some of which I will mention below, but I will stick with SSI as a collective term.
believe that knowledge is the norm for assertion and action, which is supposed to provide a major motivation for their view. I will follow Jessica Brown (2008; 2011; 2014) and others in arguing against these ideas.

Let us modify KS-System from §1.4.1 in four ways. First, as in §2.1, say that the values of the individual \(i\), time \(t\), location \(l\) and world \(w\) parameters of semantic contexts are given by the attributor, i.e. the person who utters the sentence we are interested in interpreting, the attributor’s time, location and world respectively. We use the subscript ‘\(\alpha\)’ to indicate this. Second, remove the placeholder parameters \(n\) and \(m\) from semantic contexts and circumstances of evaluation respectively. Third, say that the character of ‘know’ is a constant function from semantic contexts to a single semantic value. In particular, the character of ‘know’ is defined in terms of a single moderately high epistemic standard.\(^{83}\) And fourth, say that the world of the circumstance of evaluation is just the world of the semantic context, which we indicate using ‘\(w_c\)’.

In light of these modifications, we get the following process for the semantic interpretation of a knowledge attribution \(\Gamma S \text{ knows that } \Phi \Gamma\):

(i) The system takes \(\Gamma S \text{ knows that } \Phi \Gamma\) (disambiguated as required) and a semantic context \(c\) (i.e. a sequence \(\langle i_\alpha, t_\alpha, l_\alpha, w_\alpha \rangle\)) as an input.

---

\(^{83}\) Although all SSI proponents believe that ‘know’ has a context-insensitive character associated with a single epistemic standard, to my knowledge only Hawthorne (e.g. 2004, p. 162) is explicitly committed to the idea that this standard is moderately high. Stanley (2005, pp. 85-90) appears to be neutral about how high or low the standard is, and Fantl and McGrath (2007, p. 559) reject Fallibilism, which entails that they do not set the epistemic standard moderately high (cf. §1.2, fn. 18). For exegetical purposes it will be easier if we ignore these differences and assume that all SSI proponents advocate the view that ‘know’ has a context-insensitive character associated with a single moderately high epistemic standard. This should not beg the question or bias the enquiry in our favour in any way. All SSI proponents seem to agree about the truth and falsity of the knowledge attributions in the Bank Cases (see e.g. Fantl and McGrath 2002, pp. 67-68; Hawthorne 2004, pp. 159-60; Stanley 2005, pp.3-5). Similarly, they all share a commitment to Impurism and the Subject Principle, outlined below, and these are the main commitments we are targeting in this chapter.
(ii) The system looks at the characters of the constituents of \( \gamma \) \( S \) knows that \( \Phi \). Constituents with fixed characters are assigned semantic values as constant functions from \( c \). Constituents with context-sensitive characters are assigned semantic values as non-constant functions from whichever parameters of \( c \) they are associated with. In particular, ‘know’ is assigned a semantic value as a constant function from \( c \).

(iii) The system combines the semantic values of the constituents of \( \gamma \) \( S \) knows that \( \Phi \) and assigns a semantic value to \( \gamma \) \( S \) knows that \( \Phi \).

(iv) The semantic value of \( \gamma \) \( S \) knows that \( \Phi \) determines the output of the system – the truth-value True or False – with respect to the world of the context \( w_c \).

Accordingly, we can replace Base Definition* from §1.4.1 with Invariantist Definition:

\[
\text{Invariantist Definition: } \llbracket \gamma \ S \text{ knows that } \Phi \rrbracket_{w_c}^{<i_\alpha, t_\alpha, l_\alpha, w_\alpha>} = \text{True} \text{ if and only if at a semantic context } <i_\alpha, t_\alpha, l_\alpha, w_\alpha> \text{ and the world of the semantic context } w_c \text{ S confidently believes the proposition expressed by } \Phi, \text{ the proposition expressed by } \Phi \text{ is true and } S\text{'s epistemic position with respect to the proposition expressed by } \Phi \text{ meets a moderately high epistemic standard.}
\]

Two things are still unclear: what is meant by a moderately high epistemic standard and why we are counting SSI as a form of variantism. Let us take each point in turn.

Recall that epistemic standards and positions function as placeholders for a theory of knowledge in the semantics of knowledge attributions (cf. §1.1; §1.3.2). Similarly, the exact height at which a moderately high epistemic standard is set is something that needs to be specified by whatever epistemological theory the epistemic standard stands in for. Nonetheless, we can distinguish at least two notions of a moderately high epistemic standard. Call the first a somewhat moderately high
(SMH) and the second a very moderately high (VMH) epistemic standard. A SMH epistemic standard is set high, although not as high as it is according to radical scepticism (see e.g. Levin 2008; cf. §1.3.2; §2.2.2). If the semantics of knowledge attributions is characterised by a single SMH epistemic standard, then many utterances of knowledge attributions come out false. For instance, the utterance of the knowledge attribution in Bank Case A comes out false. A VMH epistemic standard is also set high, although not as high as a SMH standard and certainly not as high as it is according to radical scepticism (see e.g. Bach 2005b; Black 2005; Brown 2006; Fantl and McGrath 2002; Hawthorne 2004, pp. 144-49; Reed 2010; Williamson 2005). If the semantics of knowledge attributions is characterised by a single VMH epistemic standard, then many utterances of knowledge attributions come out true. For instance, the utterance of the knowledge attribution in Bank Case A comes out true. SSI proponents believe that the semantics of knowledge attributions is characterised by a single VMH epistemic standard (see fn. 83), hereafter just a single moderately high epistemic standard.

We will introduce the variantist component of SSI in two stages. Firstly, pace the traditional thought that all of the conditions on knowledge are truth-conducive, like having justification for believing the object proposition, having a sensitive belief in the object proposition or whatever else (cf. §1.1; §1.3.2), SSI proponents advocate the following view (Fantl and McGrath 2002, pp. 68-69; Hawthorne 2004, p. 158; Stanley 2005, pp. 85-86):

*Impurism* (aka *Anti-Intellectualism*): The strength of a subject’s epistemic position with respect to some proposition p depends on two distinct kinds of factors: the traditional truth-conducive factors and the relevant practical interests with respect to p.

Generally speaking, the greater the relevant practical interests, the greater the extent to which a subject will need to meet the traditional truth-conducive conditions on knowledge in order for her epistemic position to meet a moderately high epistemic standard. Conversely, the lesser the relevant practical interests, the less the extent to which a subject will need to meet the traditional truth-conducive conditions
on knowledge in order for her epistemic position to meet a moderately high epistemic standard. Likewise, the greater the extent to which a subject meets the traditional truth-conducive conditions on knowledge, the greater the relevant practical interests can be before the subject’s epistemic position fails to meet a moderately high epistemic standard. Conversely, the lesser the extent to which a subject meets the traditional truth-conducive conditions on knowledge, the lesser the relevant practical interests can be before the subject’s epistemic position fails to meet a moderately high epistemic standard.

Greatness of practical interests can be measured in terms of seriousness of consequences. That is, the more serious the consequences of acting or on failing to act on p, the greater the relevant practical interests with respect to p (see e.g. Stanley 2005, pp. 85-90). We can see the trade-off between truth-conducive conditions and practical interests more clearly if we consider Figure 5 below:

*Figure 5: Case where an epistemic position exceeds a moderately high epistemic standard following Impurism*

We measure the greatness of the relevant practical interests along the x axis; the further along the x axis, the greater the relevant practical interests. We measure the extent to which a subject satisfies the traditional truth-conducive conditions on
knowledge along the y axis; the further along the y axis, the greater the extent to which a subject satisfies the traditional truth-condusive conditions on knowledge. We draw a moderately high epistemic standard as a diagonal which starts some way up the y axis. This represents the idea that even if there are no relevant practical interests, then the subject still needs to satisfy the traditional truth-condusive conditions on knowledge in order to meet the moderately high epistemic standard. Finally, we plot a subject’s epistemic position by measuring the extent to which she satisfies the truth-condusive conditions on knowledge and drawing a horizontal line across from the y axis, by measuring the greatness of the practical interests and drawing a vertical line up from the x axis and putting a cross where the lines converge. If the cross falls at or above the epistemic standard diagonal, the subject knows the proposition in question. If the cross falls below the diagonal, the subject does not know it. For example, Figure 5 represents a subject who knows some proposition. Conversely, Figure 6 below represents a subject who does not know it. Similarly, the epistemic position represented in Figure 5 is stronger than the epistemic position represented in Figure 6.

*Figure 6: Case where an epistemic position fails to meet a moderately high epistemic standard following Impurism*
What we have said so far does not yet amount to a form of variantism. In particular, it is consistent with the idea that the relevant practical interests do not change. The variantist aspect of SSI is given by what we will call the Subject Principle:

Subject Principle: The practical interests relevant to determining the strength of a subject’s epistemic position with respect to some proposition p are the subject’s practical interests with respect to p, which may vary with respect to times and possible worlds.

For example, suppose that we think that S knows that p if and only if S has a true justified confident belief that p and certain practical interests with respect to p. And suppose that S in fact does have a true justified confident belief that p and these practical interests with respect to p. Over time, S’s practical interests with respect to p might change. If they become greater, i.e. if the consequences of acting or failing to act on p for S become more serious, S may cease to know that p. If they become less great, S can get away with having less justification for believing that p and still know that p. Similarly, if S’s practical interests with respect to p were greater, S might fail to know that p. If S’s practical interests with respect to p were less great, S might know that p even if S had less justification for believing that p. The introduction of a subject’s practical interests, which affect the subject’s overall epistemic position and which can vary with respect to times and possible worlds, captures the variantist aspect of SSI.

One might argue that, by our own lights, SSI is not a form of variantism. In §1.1 we said that ‘variantism’ is a catch-all term for any view according to which the notions of context and contextual change play a role in the semantics of knowledge attributions, and in §1.4 we distinguished three kinds of contexts: pre-semantic, semantic and pragmatic. Although SSI proponents appeal to changes in the subject’s practical interests across times and worlds, these changes are not reflected in our characterisation of pre-semantic, semantic or pragmatic contexts. More importantly, Invariantist Definition does not appeal to changes in these contexts.
The dispute here is largely terminological. Firstly, we could introduce the notion of a practical context, defined in terms of a subject’s practical interests with respect to some proposition at a given time and possible world. Given that changes in practical contexts directly affect a subject’s epistemic position and Invariantist Definition makes reference to the subject’s epistemic position, it would follow that the notions of practical context and changes in the practical context, and a fortiori the notions of context and contextual change, play a role in the semantics of knowledge attributions. Specifically, we could replace Invariantist Definition with Invariantist Definition*:

Invariantist Definition*: \[
[r] \text{S knows } \Phi \equiv [c]_{w_c}^{<i_a, t_a, l_a, w_a>} = \text{True if and only if at a semantic context } <i_a, t_a, l_a, w_a> \text{ and the world of the semantic context } w_c \text{ S confidently believes the proposition expressed by } \Phi, \text{ the proposition expressed by } \Phi \text{ is true and S’s epistemic position – defined in part in terms of S’s practical context – with respect to the proposition expressed by } \Phi, \text{ meets a moderately high epistemic standard.}
\]

More importantly, even if SSI semantics is strictly speaking invariantist, the position is variantist in spirit and in its consequences. For example, John Hawthorne is explicit about the parallels between SSI and attributor contextualism, which we discussed in Chapter 2:

‘Restricting ourselves to extensional matters, the verb “know” picks out the same ordered triples of subject, time, and proposition in the mouths of any ascriber [i.e. attributor\(^84\)]. However, whether a particular subject-time-proposition triple is included in the extension of “know” depends not merely upon the kinds of factors traditionally adverted to in accounts of knowledge – whether the subject believes the proposition, whether the proposition is true,

\(^84\) Hawthorne, like Kaplan (1989, p. 502), believes that circumstances of evaluation consist of at least worlds and times, hence the extension of a knowledge attribution is determined by reference to a subject, the object proposition and a time. To keep things simple, we are leaving times out of the circumstances of evaluation in KS-System (cf. §1.4.1).
whether the subject has good evidence, whether the subject is using a reliable method, and so on – but also upon the kinds of factors that in the [attributor] contextualist’s hands make for ascriber-dependence. These factors will thus include (some or all of) the attention, interests, and stakes of the subject at that time.’ (Hawthorne 2004, p. 158)

Similarly, as we will see in the next section, SSI grants the status of semantic intuitions to felicity intuitions in many of the same Bank Cases as other forms of variantism, and in more Bank Cases than moderate invariantism (cf. §6.2.1; §6.3.1).

4.2. Motivations for subject-sensitive invariantism

4.2.1. Linguistic motivations: Bank Cases A, B, E and G

In §2.2.1 we saw that the felicity of the utterance of the knowledge attribution in Bank Case A and the knowledge denial in Bank Case B can be explained by changes in the attributor’s practical interests with respect to the proposition that the bank will be open on Saturday. Specifically, we saw that the attributor’s practical stakes with respect to this proposition increase from Bank Case A to B. According to attributor contextualism this raises the epistemic standard from A to B. As a result, even though the subject remains in the same epistemic position in A and B, this position meets the epistemic standard in A but does not meet the epistemic standard in B. Of course, the attributor and the subject are identical in Bank Cases A and B, so it follows that the subject’s practical interests with respect to the proposition that the bank will be open on Saturday increase from A to B. According to SSI this weakens the subject’s epistemic position from A to B. As a result, even though the epistemic standard remains the same in A and B, the subject’s epistemic position in A but not in B meets this standard. Like attributor contextualism then, SSI can grant the status of semantic intuitions to felicity intuitions in Bank Cases A and B (see e.g.
Recall that according to SSI a knowledge attribution does not express different propositions in different semantic contexts, so there is no danger that embedded and unembedded occurrences of knowledge attributions will express different propositions (cf. §2.3.1). That is, there is no danger that $\neg S$ knows that $\Phi \neg$ will express different semantic values in the non-embedding construction $\neg S$ knows that $\Phi \neg$ and the embedding construction $\neg S$ said that $S$ knows that $\Phi \neg$. Consequently, SSI can also grant the status of semantic intuitions to felicity intuitions in Bank Case E.

Bank Cases C and D do not describe the subject’s practical stakes with respect to the proposition that the bank will be open on Saturday, so they are under-described for our present purposes; for all we know, SSI may be able to grant the status of semantic intuitions to the felicity intuitions in these cases. Therefore, instead of Bank Cases C and D, we will consider Bank Case G (cf. Stanley 2005, p. 4):

*Bank Case G*

It is Friday; Larry and Jeff’s bank is open tomorrow; Larry was at the bank last Saturday and confidently believes that the bank will be open tomorrow; he is driving past the bank with his partner Cheryl and his friend Jeff; he has a cheque with him, and it is very important that he deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. Cheryl says, ‘But banks change their hours’. Later that day Jeff is driving past the bank with his partner Suzie; he has a cheque with him, but it is not especially important that he deposits the cheque before Monday. Jeff says, ‘Let’s deposit the cheque tomorrow’. Suzie says, ‘Are you sure? Many banks are closed on Saturdays’. Jeff says, ‘No, I asked Larry and he knows that the bank will be open tomorrow’.
Jeff’s utterance of the third person knowledge attribution ‘[Larry] knows that the bank will be open tomorrow’ is infelicitous. According to SSI, the extension of the sentence depends on Larry’s practical interests. Larry’s practical interests are high, so, by analogy with Bank Case B, his epistemic position is too weak to meet a moderately high epistemic standard for knowledge. Therefore, the knowledge attribution ‘[Larry] knows that the bank will be open tomorrow’ is false. SSI is able to grant the status of semantic intuition to the felicity intuition in this case.

4.2.2. Theoretical motivations: Action and Assertion

The primary theoretical motivation for SSI, and specifically for Impurism, is based on the idea that knowledge is conceptually connected to action. SSI proponents appear to have two distinct ideas in mind here (cf. Brown 2008, p. 168). On one hand, Hawthorne (2004, p. 30) and Stanley (2005, p. 9) claim that one can appropriately act on a proposition only if one knows that proposition (cf. Hawthorne and Stanley 2009, pp. 577-78), i.e. knowledge is a necessary condition for appropriate action. On the other hand, Fantl and McGrath (2002, p. 72) claim that one can appropriately act on a proposition if one knows that proposition, i.e. knowledge is a sufficient condition for appropriate action. Whether knowledge is a necessary or a sufficient condition for appropriate action, or indeed both, the thought seems to be that knowledge is connected to practical interests in the sense of Impurism because it is connected to action.\(^85\) Putting all of this together, we get what we will call Action:

\(^85\) There are at least two hidden premises here, viz. that action is connected to practical interests and that if knowledge is connected to action and action is connected to practical interests then knowledge is connected to practical interests. Although the first premise seems obvious, I am not sure that the second one is. Nonetheless, we will grant it for the sake of the argument.
Action: Knowledge is either a necessary or a sufficient condition for appropriate action, or both. Hence knowledge is connected to practical interests in the sense of Impurism.

Stanley (2005, pp. 10-11) argues that the plausibility of Action is often obscured or overshadowed by the idea that knowledge is the norm for assertion (see e.g. Williamson 2000, Ch. 11; cf. Moore 1993, pp. 207-208; Unger 1975, pp. 252-56). There are several ways we can understand this idea: that knowledge is a constitutive and necessary norm for assertion, a non-constitutive but necessary norm, a sufficient norm, or a necessary and sufficient norm (cf. Brown 2011).

The idea that knowledge is a constitutive and necessary norm for assertion is defended by Timothy Williamson (2000, Ch. 11), who argues that it is essential to the speech act of assertion that one should assert a sentence $\Phi$ only if one knows the proposition expressed by $\Phi$. However, it is difficult to tell exactly what Williamson means by constitutive norms here (cf. Hindriks 2007, pp. 394-99). For example, a common thought is that a norm $N$ is constitutive of an act $A$ only if $A$ cannot be performed without complying with $N$ (cf. Lewis 1979b, pp. 342-43). Yet according to Williamson (2000, p. 240) one can fail to follow the norm for assertion without failing to make an assertion. Because of this complication and others (see e.g. Kvanvig 2009, pp. 140-41), discussion of the knowledge norm for assertion tends to focus on the suggestions that knowledge is a non-constitutive but necessary, a sufficient, or a necessary and sufficient norm for assertion. That is, one should assert a sentence $\Phi$ only if one knows the proposition expressed by $\Phi$, or if one knows the proposition expressed by $\Phi$, or if and only if one knows the proposition expressed by $\Phi$:

Assertion: Knowledge is either a necessary or a sufficient norm for assertion, or both.

In light of this, we will assume that Stanley believes that the plausibility of Action is often obscured or overshadowed by Assertion. I take it the reason Stanley
believes this is just that Assertion is a widely discussed view, supported by some of the same arguments as Action (cf. §4.3.2).

Firstly, Assertion explains the infelicity of utterances of sentences of the form \( \neg \Phi \), but I do not know that \( \Phi \) (Williamson 2000, pp. 253-54). Suppose that \( \Phi \) expresses the proposition \( p \). Following Assertion, we can infer from the assertion of \( \Phi \) that I know that \( p \) and from the assertion of \( \neg \Phi \) I do not know that \( \Phi \neg \) that I know that I do not know that \( p \). Given Factivity, that I know that I do not know that \( p \) entails that I do not know that \( p \). Obviously, one cannot both know and not know that \( p \) at the same time, so asserting \( \neg \Phi \), but I do not know that \( \Phi \neg \) is infelicitous. Similarly, Assertion explains the infelicity of utterances of sentences of the form \( \neg \Phi \), but I do not believe that \( \Phi \) (cf. Moore 1993, pp. 207-208). Again, suppose that \( \Phi \) expresses \( p \). Following Assertion, we can infer from the assertion of \( \Phi \) that I know that \( p \). Given Attitude, knowledge entails belief, so we can also infer from the assertion of \( \Phi \) that I believe that \( p \). Following Assertion, we can infer from the assertion of \( \neg \Phi \) I do not believe that \( \Phi \) that I know that I do not believe that \( p \). Given Factivity, that I know that I do not believe that \( p \) entails that I do not believe that \( p \). Obviously, one cannot both believe and not believe that \( p \) at the same time, so asserting \( \neg \Phi \), but I do not believe that \( \Phi \) is infelicitous. Stanley (2005, p. 11) supposes that the felicity intuitions associated with utterances of sentences of the form \( \neg \Phi \), but I do not know that \( \Phi \) and \( \neg \Phi \), but I do not believe that \( \Phi \) are so clear and stable that they must be responding to some underlying phenomenon, such as Assertion. He argues that something similar is true of the link between knowledge and action, viz. the felicity intuitions in scenarios like Bank Case G are so clear and stable that they must be responding to some underlying phenomenon, like Action.

Secondly, Assertion provides a straightforward account of so-called lottery sentences (Williamson 2000, pp. 249-52). For example, suppose Jeff buys one ticket in a fair lottery with one thousand tickets. A few days later, when the results of the draw have been published, Larry sees Jeff leafing through the newspaper to find the results and utters the lottery sentence, ‘Your ticket did not win’. Both Larry and Jeff are aware of the overwhelming odds against Jeff winning and Larry has no more information about the draw than Jeff. According to Williamson (2000, pp. 249-52)
Jeff is entitled to feel some resentment towards Larry here for uttering ‘Your ticket did not win’. If we assume that Larry does not know that Jeff’s ticket did not win, then *Assertion* can explain this, viz. Larry does not meet the norm for asserting ‘Your ticket did not win’.

Stanley (2005, p. 10) suggests that this reasoning obscures the idea that in some lottery situations we act on knowledge of chances. The fact that it is knowledge we are acting on in these situations lends further support to *Action*.

Finally, *Assertion* can explain some of our ordinary responses to assertions (Williamson 2000, pp. 252-53). For instance, in the example above a natural response to Larry’s assertion ‘Your ticket did not win’ is to utter ‘How do you know that?’ The semantic value of the sentence ‘How do you know that?’ presupposes that the addressee knows the target proposition, which suggests that in uttering ‘How do you know that?’ we presuppose that the addressee knows the target presupposition. Following *Assertion*, this is because we can infer from Larry’s assertion ‘Your ticket did not win’ that Larry knows that Jeff’s ticket did not win. Similarly, according to Stanley (2005, p. 10) sometimes we challenge an action by asking how the agent knows the proposition which is acted on. Likewise, we justify it by demonstrating that the agent knows the proposition acted on.

In short then, the thought is that *Action* (along with *Assertion*) is something which should be added to our list of theoretical considerations about knowledge (cf. §1.2, Appendix II). Once they are added, we will find that SSI offers a natural description of the semantics of knowledge attributions.

---

86 Following *Fallibilism*, Larry does know that Jeff’s ticket did not win. As we will see in §4.3.3, we can explain why Jeff is entitled to feel some resentment towards Larry without appealing to *Assertion* and the idea that Larry does not know that Jeff’s ticket did not win. In §6.3.2 and §6.4.3 I discuss some consequences of claiming that we know the propositions expressed by some lottery sentences.

87 Due to constraints of space I leave out other theoretical motivations for SSI, especially *Closure* (see Hawthorne 2004, pp. 181-85). We will not hold this against the view, so it should not bias the enquiry in my favour in any way.
4.3. Against subject-sensitive invariantism

4.3.1. Linguistic problems part I: Bank Cases H and I and semantic error

Like attributor contextualists (cf. §2.3.1), SSI proponents are explicitly committed to the claim that ordinary speakers are in semantic error (cf. Hawthorne 2004, pp. 162-63; Stanley 2005, pp. 97-98) and they appear to conflate semantic error and semantic ignorance (see e.g. Hawthorne 2004, pp. 107-111). This would suggest that SSI proponents are explicitly committed to the claim that ordinary speakers are semantically ignorant. However, while it seems obvious that ordinary speakers are not aware that knowledge attributions are context-sensitive (cf. §2.3.1), I do not think it is obvious whether or not speakers are aware that knowledge attributions are impure (in the sense of Impurism). Therefore, I do not think it is clear whether SSI proponents actually have to commit to the claim that ordinary speakers are semantically ignorant. In any case, we noted in §2.3.1 that the real problem for a semantic theory is commitment to the claim that speakers are in semantic error, not that they are semantically ignorant, so we will move on to examining why SSI proponents are explicitly committed the claim that speakers are in semantic error.

Consider the following case:

Bank Case H

It is Friday; Larry and Jeff’s bank is open tomorrow; Larry was at the bank last Saturday and confidently believes that the bank will be open tomorrow; he is driving past the bank with his partner Cheryl and his friend Jeff; he has a cheque with him, but it is not especially important that he deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. Later that day Jeff is driving past the bank with his partner Suzie; he asked Larry about the bank’s opening hours and confidently believes that the bank will be open tomorrow; he has a cheque with him, and it is very important that he
deposits the cheque before Monday. Jeff says, ‘Let’s deposit the cheque tomorrow’. Suzie says, ‘Are you sure? Many banks are closed on Saturdays’. Jeff says, ‘No, I asked Larry and he knows that the bank will be open tomorrow’. Suzie says, ‘But banks change their hours’. Jeff says, ‘I guess you are right; Larry doesn’t know that the bank will be open tomorrow’.

Jeff’s utterance ‘Larry doesn’t know that the bank will be open tomorrow’ is felicitous. However, SSI predicts that it should be infelicitous. Larry is the subject of the knowledge denial and has low practical interests with respect to the proposition that the bank will be open on Saturday. That is, for Larry the consequences of acting or of failing to act (i.e. of depositing or failing to deposit the cheque before Monday) on the proposition that the bank will be open on Saturday are not serious. Moreover, Larry has some justification for believing that the bank will be open on Saturday. By analogy with our reasoning in Bank Case A (cf. §4.2.1), according to SSI Larry knows that the bank will be open on Saturday. Therefore, according to SSI the sentence ‘Larry doesn’t know that the bank will be open tomorrow’ is false and its utterance should be infelicitous.

Unlike attributor contextualists, SSI proponents attempt to explain why ordinary speakers are in semantic error here. Hawthorne (2004, pp. 163-65) suggests that speakers tend to project an attributor’s lack of knowledge of the target proposition to any subject who is less well-informed than the attributor. More precisely:

*Scepticism Projection:* Whether or not a subject S in fact knows some proposition p, if an ordinary speaker is aware that an attributor A has high practical interests with respect to p and justification for believing that p but does not know that p and a subject S has lower practical interests with respect to p than A and the same (or less) justification for believing that p as A, the

---

88 Recall that ordinary speakers are understood to be the readers of scenarios like Bank Case H (cf. §1.2, fn. 8). Therefore, we will treat ordinary speakers as distinct from the attributor or the subject in a given scenario. We will refer to them as other ordinary speakers, ordinary speakers or just speakers.
speaker will have the intuition that S does not know that p because A does not know that p.

This accounts for the felicity intuition in Bank Case H. According to SSI Jeff does not know that the bank will be open on Saturday. Speakers are told that Jeff has high practical interests with respect to the proposition that the bank will be open on Saturday and some justification for believing that the bank will be open. They are also told that Larry has low practical interests with respect to the proposition that the bank will be open on Saturday and the same justification as Jeff for believing that the bank will be open.⁸⁹ Therefore, they project Jeff’s lack of knowledge to Larry. As a result, Jeff’s utterance of the sentence ‘Larry doesn’t know that the bank will be open tomorrow’ is felicitous.

In response to Scepticism Projection Keith DeRose (2009, pp. 234-35; updated from DeRose 2004b) points out that it is quite easy to come up with cases where both the subject and the attributor know the target proposition according to SSI, so speakers cannot project a lack of knowledge from the attributor to the subject, but where utterances of knowledge denials are nonetheless felicitous. For instance, consider Bank Case I:

Bank Case I

As with H, except Jeff has also visited the bank’s website and rang the bank to check that they will be open tomorrow. Jeff says, ‘Let’s deposit the cheque tomorrow’. Suzie says, ‘Are you sure? Many banks are closed on Saturdays’. Jeff says, ‘No, I asked Larry and he knows that the bank will be open tomorrow’. Suzie says, ‘But banks change their hours’. Jeff says, ‘I guess you are right; Larry doesn’t know that the bank will be open tomorrow’.

We will assume that Larry’s justification for believing that the bank will be open on Saturday transfers to Jeff when Larry says ‘I know that the bank will be open, I was there last Saturday’. This may be a controversial assumption in the epistemology of testimony (see e.g. Adler 2012, §2), but it helps to keep things relatively simple for our purposes.
Jeff’s utterance ‘Larry doesn’t know that the bank will be open tomorrow’ is still felicitous. However, this time Larry has low practical interests with respect to the proposition that the bank will be open and some justification for believing this proposition, while Jeff has high practical interests with respect to the proposition that the bank will be open but more justification than Larry for believing this proposition. Overall, we will suppose that both Larry and Jeff are in a moderately good epistemic position with respect to the proposition that the bank will be open and therefore know that the bank will be open. Given this, it is not possible to argue that speakers project Jeff’s lack of knowledge to Larry here.

To bypass this kind of worry, Stanley (2005, p. 101) suggests that speakers project not the attributor’s lack of knowledge, but the attributor’s evidentiary standards. Recall that according to SSI the strength of a subject’s epistemic position with respect to a proposition p is determined as a function of her practical interests with respect to p and traditional truth-conducive factors, like justification or evidence (cf. §4.1). In particular, as her practical interests increase, the subject has to acquire additional justification for believing that p in order to maintain the same strength of epistemic position. An evidentiary standard is whatever amount of justification is required to maintain or increase one’s strength of epistemic position in the face of variable practical interests. In light of this, we can put Stanley’s suggestion more precisely as follows:

*Standards Projection:* Whether or not a subject S in fact knows some proposition p, if an ordinary speaker is aware that an attributor A has high practical interests with respect to p and S has lower practical interests with respect to p than A, the speaker will have the intuition that S knows that p only if were S to have A’s practical interests with respect to p, S would know that p.

This accounts for the felicity intuitions in both Bank Cases H and I. In both cases if Larry were to have Jeff’s practical interests with respect to the proposition that the bank will be open, Larry’s epistemic position would be too weak to meet a moderately high epistemic standard according to SSI and therefore Larry would not
know that the bank will be open. As a result, speakers judge that Larry does not know that the bank will be open and therefore that Jeff’s utterance of the knowledge denial ‘Larry doesn’t know that the bank will be open tomorrow’ is felicitous.

Why think that either Scepticism Projection or Standards Projection is true? Hawthorne points out that

‘Psychologists [working on heuristics and biases] emphasize the role played by the “availability” heuristic as a distorting influence on our judgements of risk: in many cases, our estimation of the likelihood of an event is affected by the ease with which we can recall or imagine it. So, for example, when a certain scenario is made vivid, the perceived risk of that scenario may rise dramatically.’ (Hawthorne 2004, p. 164)

Hawthorne (2004, pp. 164-65) then argues that, because in scenarios like Bank Case H the error possibilities salient to and the high practical interests of the attributor are made vivid to ordinary speakers, this supports something like Scepticism Projection. The trouble is that there is no direct route from the psychological evidence above to either Scepticism Projection or Standards Projection (cf. DeRose 2009, pp. 235-38). To see this, let us reconstruct what appears to be Hawthorne’s argument:

**Hawthorne’s Argument**

P1. If an ordinary speaker O is made aware of high practical interests or some error possibilities with respect to a proposition p, O is likely to overestimate the risk of being wrong about p.

P2. If O is likely to overestimate the risk of being wrong about p, O is likely to have the intuition that a subject S does not know that p.

C. If O is made aware of high practical interests or some error possibilities with respect to a proposition p, O is likely to have the intuition that a subject S does not know that p.
The conclusion C is derived from premises P1 and P2 by the transitivity of entailment. However, notice that C supports something far more general than either Scepticism Projection or Standards Projection. In particular, C does not make reference to the attributor’s practical interests or to any differences in the practical interests of the attributor and the subject. Therefore, there is no direct route from the psychological evidence Hawthorne cites to either Scepticism Projection or Standards Projection. Moreover, notice that the psychological evidence only supports P1; it does not support P2. Hawthorne does not explicitly recognise P2, so he does not provide any independent reasons to think that it is true. Therefore, not only is there no direct route from the psychological evidence Hawthorne cites to either Scepticism Projection or Standards Projection, but, as things stand, there is no reason to think that C is true either. This leaves SSI proponents without an explanation of semantic error in Bank Cases H and I.

As it turns out, there are independent reasons to think that P2 is true. Jennifer Nagel (2010, pp. 409-20) points to a wide consensus in the relevant psychological literature that ordinary speakers process of belief formation is responsive to their perception of the risk of error.90 Specifically, the higher the risk of error speakers perceive in connection with some proposition p, the less confidently they tend to believe that p. Conversely, the lower the risk of error they perceive in connection with p, the more confidently they tend to believe that p (Nagel 2010, pp. 413-14). This supports the insertion of an additional premise into Hawthorne’s Argument:

**Hawthorne’s Augmented Argument**

P1. If an ordinary speaker O is made aware of high practical interests or some error possibilities with respect to a proposition p, O is likely to overestimate the risk of being wrong about p.

P2. If O is likely to overestimate the risk of being wrong about p, O is likely not to confidently believe that p.

90 Nagel is a moderate invariantist in the sense of §6.1 and I will return to her view in §6.4.2. However, her observations about the psychological literature on belief formation apply equally well here.
P3. If O is likely not to confidently believe that p, O is likely to have the
intuition that a subject S does not know that p.

C. If O is made aware of high practical interests or error possibilities with
respect to a proposition p, O is likely to have the intuition that a subject S
does not know that p.

The trouble now is that we have no reason to think that P3 is true. For
instance, we might think our commitment to Factivity supports P3, viz. given that
knowledge that p entails p, someone who does not confidently believe that p is
unlikely to attribute knowledge that p, since this would commit them to p, and likely
to deny knowledge that p. But the last point does not follow; someone who does not
confidently believe that p might simply refrain from either attributing or denying
knowledge that p (cf. Stanley 2005, p. 99). As things stand, there is no reason to
think that C is true. So again, SSI proponents are left without an explanation of
semantic error in Bank Cases H and I.

If we want to shore up the present argument, we need to make some
additional assumptions. To begin with, we can say that if an ordinary speaker is
presented with a scenario like a Bank Case, the speaker might view it from the
There are at least two ways to understand this idea. On one hand, a speaker might
view a scenario like a Bank Case from the subject’s point of view with the actual
subject’s awareness of the background facts. For example, a speaker might view
Bank Case H from Larry’s point of view with Larry’s awareness of the background
facts. Call this Perspective Adoption:

*Perspective Adoption*: If an ordinary speaker is presented with a scenario like
a Bank Case, the speaker might view the scenario from the subject’s point of
view with the subject’s awareness of the background facts.

On the other hand, an ordinary speaker might view a scenario like a Bank
Case from the subject’s point of view but with the speaker’s awareness of the
background facts. For example, a speaker might view Bank Case H from Larry’s
point of view but with the speaker’s awareness of the background facts. Call this *Perspective Projection*:

*Perspective Projection*: If an ordinary speaker is presented with a scenario like a Bank Case, the speaker might view the scenario from the subject’s point of view but with the speaker’s awareness of the background facts.

*Perspective Adoption* and *Perspective Projection* raise difficult issues in the philosophy of mind, psychology and neuroscience (see e.g. Gordon 2009; Preston and de Waal 2002), which we would do well to avoid here. What matters for our purposes is that ordinary speakers appear to engage in both *Perspective Adoption* and *Perspective Projection* when they attribute mental states to other individuals. In particular, Amy Coplan (2011, pp. 10-11) points to various psychological literature which suggests that sometimes an individual will attempt to engage in *Perspective Adoption* when ascribing a mental state to someone, but will instead engage in *Perspective Projection*. For example, according to Sara Hodges and Daniel Wegner (1997, p. 328) this can happen when the individual is put under significant cognitive pressure, i.e. in scenarios where the individual has to think about multiple things at once. Following *Attitude* (i.e. confident belief is a necessary condition for knowledge), any knowledge attribution involves a mental state attribution. Given that the Bank Cases are structured around utterances of knowledge attributions, we will therefore suppose that speakers employ *Perspective Adoption* or *Perspective Projection* in these cases. *A fortiori*, speakers employ *Perspective Adoption* or *Perspective Projection* in Bank Cases H and I.

Now, *Perspective Adoption* is no use to SSI proponents as an explanation of semantic error in Bank Cases H and I. If it turns out that a speaker views these cases from Larry’s point of view with Larry’s awareness of the background facts, then according to SSI the speaker should have the intuition that Larry knows that the bank will be open on Saturday and hence should find Jeff’s utterance ‘Larry doesn’t know that the bank will be open tomorrow’ infelicitous. Rather, SSI proponents need to appeal to *Perspective Projection*. Given the psychological evidence cited by Hawthorne and Nagel and the speaker’s awareness of the background facts in these
cases, a speaker is likely to not confidently believe that the bank will be open. If that speaker then views these cases from Larry’s point of view but with her own awareness of the background facts, it stands to reason that the speaker is likely to have the intuition that Larry does not confidently believe that the bank will be open. Given Attitude, it follows that anyone who does not confidently believe that the bank will be open does not know that the bank will be open. Therefore, if a speaker is likely to have the intuition that a subject does not confidently believe that the bank will be open, the speaker is likely to have the intuition that the subject does not know that the bank will be open.

Is there any reason to appeal to Perspective Projection rather than Perspective Adoption in the Bank Cases, and especially in Bank Cases H and I? Well, all of the Bank Cases, and Bank Cases H and I in particular, are comprised of many different elements which have to be considered by speakers all at once. In light of this, I think the Bank Cases, and Bank Cases H and I in particular, put significant cognitive pressure on speakers. If this is right, following Hodges and Wegner’s argument above, we may suppose that speakers engage in Perspective Projection rather than Perspective Adoption in Bank Cases H and I.

91 One might wonder why an ordinary speaker would have the intuition that Larry does not confidently believe that the bank will be open when it is stipulated as part of the background in all of the Bank Cases that he confidently believes that the bank will be open (see e.g. Brown 2005b, pp. 81-84). Although I do not have any empirical data to support this claim directly, the evidence cited by Coplan (2011, pp. 10-11), Hawthorne (2004, p. 164), Hodges and Wegner (1997, p. 328) and Nagel (2010, pp. 409-20) seems to support it indirectly. That is, following the psychological phenomena cited by Coplan, Hodges and Wegner, we can expect speakers to view the Bank Cases from Larry’s point of view but with the information available to them. Following the phenomena cited by Hawthorne and Nagel, we can then expect speakers to find it difficult to suppose in Bank Cases H and I that Larry confidently believes that the bank will be open. I imagine that if a speaker explicitly attended to the stipulation that Larry confidently believes that the bank will be open in these cases, she would reason along something like the following lines: ‘I am told that Larry confidently believes that the bank will be open. However, I wouldn’t believe this if I were Larry, so I don’t think he really confidently believes that the bank will be open’ or ‘I am told that Larry confidently believes that the bank will be open. However, I wouldn’t believe this if I were Larry, so he can’t be that confident’. I will return to this point in §6.4.2.
To sum up, *Perspective Projection* supports the insertion of an additional premise into *Hawthorne’s Augmented Argument*:

*Hawthorne’s Super Augmented Argument*

P1. If an ordinary speaker O is made aware of high practical interests or some error possibilities with respect to a proposition p, O is likely to overestimate the risk of being wrong about p.
P2. If O is likely to overestimate the risk of being wrong about p, O is likely not to confidently believe that p.
P3. If O is likely not to confidently believe that p, O is likely to have the intuition that a subject S does not confidently believe that p.
P4. If O is likely to have the intuition that S does not confidently believe that p, O is likely to have the intuition that S does not know that p.
C. If O is made aware of high practical interests or some error possibilities with respect to a proposition p, O is likely to have the intuition that S does not know that p.

If everything we have said so far is correct, then the newly amended argument is sound. Once again, C is derived from the premises by the transitivity of entailment. The psychological evidence Hawthorne cites supports P1. The psychological evidence Nagel cites supports P2. The psychological evidence cited by Coplan and Hodges and Wegner supports *Perspective Projection*, which in turn supports P3. Finally, our commitment to *Attitude* supports P4. Although we have had to abandon *Scepticism Projection* and *Standards Projection*, we leave SSI proponents with an explanation of semantic error in Bank Cases H and I which is firmly grounded in psychological evidence. For ease of exposition, let us call this explanation *Projected Adaptivism*:

*Projected Adaptivism*: Whether or not a subject S in fact knows some proposition p, if an ordinary speaker is made aware of high practical interests
or some error possibilities with respect to \( p \), the speaker is likely to have the intuition that \( S \) does not know that \( p \). \(^{92}\)

Unfortunately for SSI proponents, *Projected Adaptivism* still comes at a significant cost to their view. John MacFarlane (2005a, pp. 213-14) points out that an approach like *Projected Adaptivism* could explain too much, i.e. it could explain not only why speakers have the felicity intuitions they do in Bank Cases H and I, but in other cases as well. In particular, it leaves SSI proponents with no way to distinguish cases where felicity intuitions are allegedly responding to a genuine connection between a subject’s practical interests and the semantics of knowledge attributions from cases where felicity intuitions are responding to the kind of phenomena highlighted by Hawthorne and Nagel and to *Perspective Projection*. For example, the felicity intuitions in Bank Case G are as well explained by *Projected Adaptivism* as they are by SSI semantics. According to SSI Jeff’s utterance ‘[Larry] knows that the bank will be open tomorrow’ is infelicitous because Larry’s practical interests are high, his justification is reasonably good, so overall his epistemic position is too weak to meet a moderately high epistemic standard (cf. §4.2.1). According to *Projected Adaptivism* Jeff’s utterance ‘[Larry] knows that the bank will be open tomorrow’ is infelicitous because speakers are made aware of high practical interests and some error possibilities in connection with the proposition that the bank will be open, which leads them to overestimate the risk of error, which in turn leads them to not confidently believe that the bank will be open. Following *Perspective Projection* and *Attitude*, speakers then have the intuition that Larry does not know that the bank will be open.

---

\(^{92}\)Something like *Projected Adaptivism* is advocated by Kant Bach (2005b, pp. 76-80) and Nagel (2010, pp. 426-27). However, Bach thinks that ordinary speakers adopt the attributor’s perspective but with the speaker’s awareness of the background facts, and that they do so only in certain cases. Nagel thinks that ordinary speakers adopt the subject’s perspective but with the speaker’s awareness of the background facts, and that they do so only in certain cases. The psychological evidence does not appear to support Bach’s claim that speakers adopt the attributor’s perspective. Moreover, Bach and Nagel do not offer any explanation why ordinary speakers adopt another’s perspective in some cases but not in others. For these reasons, I prefer *Projected Adaptivism*. 

135
Stanley (2005, pp. 101-103) recognises this problem and offers an alternative explanation of what happens in scenarios like Bank Cases H and I:

‘The [alternative] account arises naturally from reflection upon the purposes someone in [Jeff’s] situation would have in enquiring whether someone else knows that \( p \). When [Jeff] wants to know whether another person knows that \( p \), it is presumably because [Jeff] has an important decision to make, one that hinges upon whether or not \( p \) (this follows naturally from the fact that \( p \) is a serious practical question for [Jeff]). So, [Jeff’s] interest lies in establishing \( p \); that is, in establishing information that will allow [him] to know that \( p \). What [Jeff] is interested in finding out, then, is whether someone else’s information state is sufficient for [Jeff] to know that \( p \). In short, the purpose [Jeff] has in asking someone else whether or not \( p \) is true lies in finding out whether, if that person has the interests and concerns [Jeff] does, that person would know that \( p \). Since \( p \) is a serious practical question for [Jeff, he] is not really worried about that person’s own interests and concerns. […] This also explains our intuitions about the case, from a third-person perspective. When we are asked for our intuitions about the case, we intuitively recognise that what [Jeff] really care[s] about is whether [Larry] would know, were he in [Jeff’s] practical situation. We recognize that the answer to this is negative. […] Unlike Hawthorne’s proposed explanation […], we do not need to appeal to an alleged psychological generalisation that we always overestimate the likelihood of counter-possibilities. […] There is also no threat of the sort envisaged [by MacFarlane] of this account generalizing to provide some alternative account of all of our shifting intuitions.’ (Stanley 2005, pp. 102-103; original emphasis).

There are at least two problems with Stanley’s alternative account. Firstly, he gives no explanation why ‘when we [i.e. ordinary speakers] are asked for our intuitions about the case, we intuitively recognise that Jeff really cares about is whether Larry would know, were he in Jeff’s practical situation’. More importantly, he does not explain why this leads speakers to have the intuition that Jeff’s utterance
is felicitous. Even if speakers recognise that what Jeff really cares about is whether Larry would know that the bank will be open were he in Jeff’s practical situation, presumably speakers themselves do not care about this, so they have no reason to evaluate the felicity or infelicity of Jeff’s utterance with respect to his practical situation. Perhaps Stanley thinks this as a brute psychological fact, viz. whenever there is an attributor with an important decision to make with respect to a proposition p, speakers evaluate the felicity or infelicity of the attributor’s utterances of knowledge attributions that p with respect to that attributor’s practical interests. However, this looks very much like Standards Projection, which we dismissed earlier. Moreover, it seems to commit SSI proponents to just the kind of psychological generalisation Stanley wants to avoid.

Secondly, we have seen that at least several major aspects of Projected Adaptivism are empirically well-supported. In light of this, it is not clear that Stanley is entitled simply to dismiss this explanation and opt for a different account. That is, if it is an empirical fact that ordinary speakers overestimate the risk of error with respect to a proposition p when they are made aware of high practical interests or error possibilities with respect to p, and it is an empirical fact that this leads them not to confidently believe that p and in turn to have the intuition that a subject in a given case does not confidently believe and hence does not know that p, then it is not clear that there is room for Stanley’s alternative account of the Bank Cases. To put it another way, given that the explanation in terms of Projected Adaptivism appears to be psychologically real, it is not clear that Stanley is entitled to advance an alternative explanation which does not in some way take account of this psychological reality.

If these observations are correct, then SSI proponents will have to fall back on Projected Adaptivism for their explanation of semantic error in Bank Cases H and I. However, we have seen that Projected Adaptivism explains too much, i.e. it explains speakers’ felicity intuitions not only in those cases which pose problems for SSI, but also those cases which are meant to support SSI. In light of this, I conclude that SSI proponents cannot explain why ordinary speakers are in semantic error in Bank Cases H and I after all. Like attributor contextualists, they have to claim that
sometimes speakers just happen to have felicity intuitions which do not amount to semantic intuitions.

4.3.2. Linguistic problems part II: counterfactuals and semantic error

Besides Bank Cases H and I, SSI proponents are explicitly committed to the claim that ordinary speakers are in semantic error with respect to utterances of certain counterfactual sentences. For example:

(1) If Larry had to deposit a cheque before Monday, then Larry would not have known that the bank will be open on Saturday.

(2) If Jeff did not have to deposit a cheque before Monday, then Jeff would have known that the bank will be open on Saturday.

Following *Impurism* and the *Subject Principle*, sentences like (1) and (2) come out true. However, as SSI proponents acknowledge (see e.g. Hawthorne 2004, p. 177, fn. 40; Stanley 2005, p. 106), utterances of sentences like (1) and (2) are infelicitous. Therefore, according to SSI ordinary speakers must be in semantic error with respect to sentences like (1) and (2).

Although SSI proponents do not attempt to explain why speakers are in semantic error here, they argue that the burden of the argument does not lie solely on SSI. In particular, Hawthorne (2004, p. 177, fn. 40) and Stanley (2005, pp. 113-14) suggest that certain very popular views in epistemology commit us to the truth of similar kinds of sentences. For example, reliabilism commits us to the truth of sentences like (3):

(3) If there were fewer fake barn façades around, Henry would have known that there is a barn to his left.
Roughly speaking, according to reliabilism a subject knows some proposition p if and only if the subject has a true confident belief that p arrived at by a reliable method (see e.g. Goldman 2008 [1976], p. 345). For instance, imagine that Henry is driving through a country in which every nine out of ten barn-looking objects is a fake barn façade, and only every tenth barn-looking object is a barn. Suppose that Henry has perfect vision and happens to look out of the window to his left at one of the few real barns. The usual intuition reported in this case is that Henry does not know that there is a barn to his left. Reliabilism can explain this intuition; due to the presence of many fake barn façades, Henry’s vision is not a reliable method for arriving at the belief that there is a barn to his left (see e.g. Goldman 1976, pp. 772-73). This explanation entails that the presence or absence of barn façades makes a difference to whether Henry knows that there is a barn to his left, and hence supports the truth of (3). However, as Stanley (2005, p. 114) points out, utterances of (3) are infelicitous. Given that reliabilism is nonetheless a popular view in epistemology, Hawthorne and Stanley draw the moral that we should not be overly concerned that utterances of sentences like (1) and (2) are infelicitous.

In response, I think we can show that there is a salient difference between the counterfactuals supported by SSI and those supported by reliabilism (cf. DeRose 2009, pp. 185-89). Consider the following sentences:

(4) If Jeff had lesser practical interests with respect to the proposition that the bank will be open on Saturday, then Jeff would have known that the bank will be open on Saturday.

(5) If Henry’s belief that there is a bank to his left had been arrived at by a more reliable method, Henry would have known that there is a barn to his left.

According to SSI, sentence (2) is an instance of a more general principle expressed by sentence (4). According to reliabilism, sentence (3) is an instance of a more general principle expressed by sentence (5). However, while I take it that utterances of (4) are just as infelicitous as utterances of (2), I do not think utterances of (5) are as infelicitous as utterances of (3). Indeed, I think utterances of sentence (5)
are felicitous. This suggests that there is a salient difference with respect to the error theories SSI proponents and reliabilists have to commit to, which in turn suggests that SSI proponents are unable to shift the burden of the argument to other views here.

4.3.3. Theoretical problems: Robust, problems with Action and Assertion

There are a number of arguments in the existing literature to the effect that SSI violates Robust, or something very much like Robust (see e.g. Brown 2014; DeRose 2009, pp. 189-90; Greco 2008, p. 435; MacFarlane 2005c).93

Robust: Knowledge is a relatively disciplined, stable or robust phenomenon. It is not a disparately varied, individual-dependent or arbitrary relation or set of relations. In particular, it does not come and go with the arbitrariness and ease of changing an individual’s practical interests.

93 As noted in §2.1, these arguments also lend further support to FATSO. For example, Jessica Brown (2014, p. 188) writes, ‘We could imagine someone arguing from problems with the extant versions of contextualism and traditional invariantism, to the conclusion of a radically revisionary metaphysics on which causation is norm-dependent [analogously to the impurist argument that knowledge is interests-dependent]. However, any such move would be rejected by the majority of metaphysicians who insist that causation itself is not norm-dependent however much causal talk is norm-dependent.’ Similarly, DeRose (2009, p. 188) writes, ‘as intellectualism [i.e. the negation of Impurism] would have it, practical matters, like how important it is to the subject that she be right, seem capable of affecting whether the subject knows only if they have an effect on the subject’s attitude toward the proposition in question or on some truth-relevant factor. (In a strange situation in which the fact that the matter is important to the subject constitutes good evidence to the subject that she’s wrong about the proposition in question, then of course this importance can be relevant to whether she knows.) The thought that such practical matters might otherwise be relevant to whether the subject knows seems to do considerable violence to the concept of knowledge.’ This suggests that both Brown and DeRose think there are epistemological constraints on a theory of the semantics of knowledge attributions in addition to the ability of the theory to grant the status of semantic intuitions to felicity intuitions.
Following *Invariantist Definition*, the semantic value of ‘know’ does not change across different contexts, so SSI proponents can maintain the idea that all knowledge attributions pick out a single knowledge relation (cf. §2.3.2). However, following *Impurism* and the *Subject Principle*, whether a subject knows or does not know a proposition depends to a large extent on the subject’s practical interests with respect to this proposition. Therefore, according to SSI the knowledge relation is individual-dependent. Moreover, following *Impurism*, two subjects with vastly different sets of practical interests and degrees of justification with respect to a proposition $p$ can nonetheless both be said to be in a moderately strong epistemic position with respect to $p$ and therefore to know that $p$. So knowledge is also disparately varied according to SSI. Similarly, following SSI a subject can at one time know and at another time fail to know a proposition due to nothing other than a variation in her practical interests. So SSI entails that knowledge can come and go with the arbitrariness and ease of changing an individual’s practical interests.

SSI proponents recognise that their view breaks with something like *Robust* and with epistemological tradition more generally (see e.g. Stanley 2005, p. 6). However, they think that this is justified at least in part by *Action*, which we considered in §4.2.2.

*Action*: Knowledge is either a necessary or a sufficient condition for appropriate action, or both. Hence knowledge is connected to practical interests in the sense of *Impurism*.

In other words, SSI proponents would say that our list of theoretical considerations from §1.2 (cf. Appendix II) is incomplete. In addition to *Robust*, *Attitude* and others, we ought to countenance *Action*. Once we countenance *Action*, we should see that SSI is a well-justified view and that a conflict with *Robust* is precisely what we should expect from a theory of the semantics of knowledge attributions. This poses a different dialectical challenge than our previous discussions. For example, recall that attributor contextualism has several theoretical motivations (cf. §2.2.2) and problems (cf. §2.3.2). However, these motivations and problems are (at least for our purposes) unrelated. In light of this, we can simply
point to our list of theoretical considerations, demonstrate that attributor contextualism respects some but not all the considerations on the list, and then conclude that, following *FATSO*, there is a presumption that attributor contextualism is false (cf. §2.4). This is not the case with SSI; the theoretical motivations and problems we are highlighting here are related. In particular, Action could justify the rejection of Robust. In light of this, before we can use the incompatibility of SSI with Robust as grounds for the presumption that SSI is false, first we need to show either that SSI proponents are mistaken to think that Action justifies their view, or that there are reasons to think that Action is false. I will explore the second option here.

Before we begin, let me make three preliminary points. Firstly, recall that at least some SSI proponents believe that Action is obscured or overshadowed by Assertion:

\textit{Assertion}: Knowledge is either a necessary or a sufficient norm for assertion, or both.

One could think this is because there is some kind of conceptual connection between Action and Assertion. For example, one might think that an assertion is, \textit{qua} utterance, an action, and in light of this Assertion inherits its motivations from Action. In particular, one might decide that, because an assertion is an action, one should assert a sentence $\Phi$ which expresses a proposition $p$ if and only if it is appropriate to act on $p$, and it is appropriate to act on $p$ if and only if one knows that $p$. Therefore, one might decide that one should assert $\Phi$ if and only if one knows that $p$. Although there are good reasons to think that this kind of reasoning is spurious (see e.g. Brown 2012),\footnote{For example, Brown (2012, pp. 131-33) points out that sometimes it is appropriate to act on $p$ by asserting a sentence which expresses not-$p$, which shows that knowledge that $p$ is not necessary for acting on $p$.} we will ignore this question here. All that matters for our purposes is that many of the arguments for Action are the same or similar to the arguments for Assertion. Indeed, given that Assertion has received a lot of attention in recent years,
both from critics and advocates, it will pay to concentrate on *Assertion* and then extend our arguments to *Action*.\(^{95}\)

Secondly, although we cannot simply point out that SSI violates *Robust* and leave our objections at that, we do not have to conclusively refute *Action* either. Specifically, since it is a fact that SSI is controversial, if we can show that there are significant reasons to doubt that *Action* is true, we should be able to shift the burden of the argument to advocates of SSI.

Thirdly, and relatedly, there is a large body of literature attacking both *Action* and *Assertion*. Since all we have to do is shift the burden of the argument to SSI proponents, my tactic will be primarily to review this literature to demonstrate that both *Action* and *Assertion* are not obvious. Where relevant, I will provide additional arguments to bolster the attacks on *Action* and *Assertion*.

We can begin by listing some alternatives to *Assertion*. I present these in order of the strongest to the weakest necessary conditions for asserting a sentence \(\Phi\), which we will assume expresses the proposition \(p\):

- *Certain Assertion*. Assert \(\Phi\) only if you are certain that \(p\) (Stanley 2008).\(^{96}\)

- *Justified Assertion*. Assert \(\Phi\) only if you have justification for believing that \(p\) (Kvanvig 2009).

- *True Assertion*. Assert \(\Phi\) only if \(p\) is true (Weiner 2005).

- *Believed Assertion*. Assert \(\Phi\) only if you believe that \(p\) (Bach 2008; Hindriks 2007).

---

\(^{95}\) In addition, if we can undermine *Assertion*, we can also undermine one of the major motivations for attributor contextualism, touched on briefly in fn. 55 in §2.2.2.

\(^{96}\) In an effort to avoid scepticism about the possibility of (appropriate) assertion, Stanley (2008, pp 53-54) argues that ‘certain’ has a context-sensitive character. He also acknowledges that the commitment to *Certain Assertion* in his 2008 is in tension with his defence of *Action* in his 2005 (Stanley 2008, p. 51, fn. 8).
Reasonable-to-believe Assertion. Assert $\Phi$ only if it is reasonable to believe that $p$ (Lackey 2007).

Even if these accounts are only prima facie plausible, their existence poses a challenge to Assertion. Specifically, if there are so many prima facie plausible alternatives to Assertion, it stands to reason that Assertion cannot be obvious. The general method for defending these alternatives is to show that they can explain all the data which is explained by Assertion, i.e. the infelicity of utterances of sentences of the form $\neg\Phi$, but I do not know that $\Phi \land \neg\Phi$, but I do not believe that $\Phi \land \neg\Phi$, lottery sentences and ordinary responses to assertions (cf. §4.2.2), as well as data which cannot be explained by Assertion. Since our aim is to shift the burden of the argument to SSI proponents, we do not need to establish which of these alternatives (if any) is correct. We only need to show that there are problems with Assertion and plausible alternatives available.

Take ordinary responses to assertions first. Brown (2011, pp. 552-54) and others point out that we cite conditions both stronger and weaker than knowledge in challenging and justifying our assertions, so there is no reason to think that our ordinary responses support Assertion. For example, consider her Milk and Worried Mother examples:

Milk

‘I return home from the supermarket to find there’s no milk for coffee. There was a litre there last night, but my teenage son used up the milk we had when some of his friends came round unexpectedly. I may criticise his failure to say that he used up the milk saying, “You should have said we were out of milk. You knew we didn’t have any”. His failure is equally criticisable if it turns out that we do have milk since, by chance, a neighbour happened to bring some over (although, of course, in such a situation [i.e. a Gettier situation; following Anti-Gettier (cf. §1.2, Appendix II), one cannot know that $p$ if one is in a Gettier situation with respect to $p$], I would phrase my
criticism differently, e.g. “You should have said we were out of milk. You thought we didn’t have any”’ (Brown 2011, p. 553).

Worried Mother.

‘On discovering that her son told his sister that there would be a bus home as late as 2am, a mother might criticise her son’s assertion saying, “You shouldn’t have said there’s a bus at 2am. You weren’t certain there’d be a bus home that late”, or “You shouldn’t have said there’s a bus at 2am. You didn’t know for sure that there’d be a bus at that time”’ (Brown 2011, p. 554).

In Milk Brown’s assertion ‘You thought we didn’t have any’ is felicitous. Brown criticises her son’s actions by appeal to his belief. Following Attitude, belief is necessary but not sufficient for knowledge, so Milk provides evidence that knowledge is not necessary for assertion. In Worried Mother the mother’s assertion ‘You weren’t certain there’d be a bus home that late’ is felicitous. The mother criticises her son’s actions by appeal to a standard of certainty. Following Fallibilism, certainty is not a necessary but a sufficient condition for knowledge, so Worried Mother provides evidence that knowledge is not sufficient for assertion.

Williamson (2009, pp. 344-45) argues that these kinds of cases ignore relevant differences in different kinds of responses to assertions. Specifically, he argues that we need to distinguish between responses like ‘How do you know that?’, which presuppose that the addressee knows the proposition in question, and responses like ‘Do you know that?’, which do not presuppose that the addressee knows the proposition in question (cf. §4.2.2). According to Williamson, both kinds of questions can be felicitously uttered when criticising an addressee’s assertion by appeal to the addressee’s knowledge of the proposition expressed by her assertion. In contrast, only the latter kind of question (i.e. the kind which does not presuppose that the addressee knows the proposition in question) can be felicitously uttered when criticising an addressee’s assertion by appeal to something other than her knowledge of the proposition expressed by her assertion. For example, Williamson (2009, pp. 344-45) suggests that a question like ‘Why are you certain of that?’ cannot
be felicitously uttered when criticising an addressee’s assertion, whereas a question like ‘Are you certain of that?’ can be felicitously uttered.

_Pace_ Williamson, I do not think there are any changes in felicity intuitions even if we modify Brown’s cases to take account of Williamson’s suggestions. For instance, consider the following variant of _Worried Mother_:

**Worried Mother**

A mother overhears her son’s telephone conversation with his sister, telling her that there is a bus home at 2am. When he hangs up, the mother says, ‘Why are you certain of that?’ / ‘Why are you certain that there will be a bus at 2am?’ / ‘Are you certain that there will be a bus at 2am?’. The son replies, ‘Who says I am certain?’ / ‘No, I am not certain’. The mother says, ‘Then why did you tell her that?’.

I take it that all of the mother’s utterances in _Worried Mother*_ are felicitous. In particular, the mother’s utterance of the sentence ‘Why are you certain that there will be a bus at 2am?’, which presupposes that the addressee is certain, followed by her utterance ‘Then why did you tell her that?’ are felicitous. Likewise, her utterance of the sentence ‘Are you certain that there will be a bus at 2am?’, which does not presuppose that the addressee is certain, followed by her utterance ‘Then why did you tell her that?’ are felicitous. This suggests that, _pace_ Williamson, both questions which presuppose that the addressee is certain and questions which do not presuppose that the addressee is certain can be felicitously uttered when criticising the addressee’s assertions.

Next, consider the infelicity of utterances of sentences of the form \( \phi \), but I do not know that \( \phi \), and \( \phi \), but I do not believe that \( \phi \). Stanley (2008, p. 47) points out that utterances of \( \phi \), but I am not certain that \( \phi \) are just as infelicitous as utterances of \( \phi \), but I do not know that \( \phi \) or \( \phi \), but I do not believe that \( \phi \). However, following _Fallibilism_, certainty is not a necessary condition for knowledge, so _Assertion_ cannot explain why utterances of \( \phi \), but I am not certain that \( \phi \) are infelicitous. Given the similarities between sentences of the form \( \phi \), but I do not
know that $\Phi \land \neg \Phi$, but I do not believe that $\Phi \land \neg \Phi$, but I am not certain that $\Phi \land$, it seems likely that the infelicity of utterances of these sentences has a unified explanation. If so, then the fact that Assertion can explain the infelicity of utterances of some of these sentences may not be a genuine motivation for Assertion, given that Assertion cannot explain the infelicity of utterances of all of these sentences.  

Finally, we can account for lottery sentences without appeal to Assertion. Recall the example from §4.2.2. Jeff buys one ticket in a fair lottery with one thousand tickets. A few days later, when the results of the draw have been published, Larry sees Jeff leafing through the newspaper to find the results and utters the lottery sentence, ‘Your ticket did not win’. Both Larry and Jeff are aware of the overwhelming odds against Jeff winning and Larry has no more information about the draw than Jeff. According to Williamson (2000, pp. 249-52) Jeff is entitled to feel some resentment towards Larry for uttering ‘Your ticket did not win’. Pace Williamson, this reaction can be explained without Assertion. For example, according to Grice’s (1989, p. 26) Quality maxim, Larry should not assert ‘Your ticket did not win’ if he lacks adequate evidence for the truth of the proposition that Jeff’s ticket did not win. In light of this, when Larry asserts ‘Your ticket did not win’, he implicates that he has adequate evidence for the truth of this proposition. As it turns out, Larry has no more evidence for the truth of this proposition than Jeff, which explains why Jeff is entitled to feel resentment towards Larry (cf. Weiner 2005, pp. 232-33).  

Williamson (2000, pp. 247-48) criticises the Gricean explanation on at least two counts. Firstly, he argues that it commits us to the claim that certain assertions which are in fact felicitous are infelicitous. For example, it commits us to the claim that an assertion of the sentence ‘Your ticket almost certainly did not win’ would be infelicitous in the example above (since Larry has no more evidence for this claim than Jeff), when in fact it would be felicitous. Secondly, Williamson points out that

---

97 This may be a little too quick. Williamson (2000, pp. 205-207) does not accept Fallibilism, nor do Fantl and McGrath, and Stanley appears to be neutral on the issue (cf. §4.1, fn. 83). Nonetheless, this reasoning should be acceptable to anyone who shares the consensus opinion that Fallibilism is correct.

98 Weiner’s explanation is based on the Quantity maxim, rather than Quality, but the upshot is very similar.
the implicature which is allegedly triggered by Larry’s utterance does not appear to be cancellable. For example, Larry cannot felicitously utter ‘Your ticket did not win, but I don’t have any evidence for that’ (cf. Grice 1989, p. 44).

Matthew Weiner (2005, pp. 233-34) defends the Gricean explanation on both counts. Against the first objection, Weiner argues that the alleged parallel between the sentence Larry asserts and assertions of similar sentences does not stand up to scrutiny. If Larry uttered ‘Your ticket almost certainly did not win’, the most charitable interpretation would be that Larry is reminding Jeff of his chances, not that Larry is attempting to add some new information to his conversation with Jeff. Against the second objection, Weiner points out that if Larry uttered the sentence ‘Your ticket did not win, but I don’t have any evidence for that’, he would simultaneously concede that he has no reason for uttering the sentence. This breaches the general norms governing conversations; for example, it violates Grice’s overarching Cooperative Principle: ‘make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged’ (Grice 1989, p. 26). This explains why Larry cannot cancel the implicature that he has no evidence for the truth of the proposition that Jeff’s ticket did not win.

Williamson has a more general argument against examples like Milk, Worried Mother and other attacks on Assertion. He suggests that we often get away with not following Assertion either because it is overruled by other norms or requirements (Williamson 2000, p. 256), or just because failing to follow Assertion is not viewed as a serious infringement of conversational rules (Williamson 2000, pp. 258-59). In light of this, at least some of the data which appears to undermine Assertion can be reinterpreted as data which shows the effects of another norm, or displays speakers’ lax attitude towards Assertion. However, this kind of argument cuts two ways. That is, if Williamson is allowed to reinterpret some of the data which appears to show that Assertion is false, there is no principled reason why we cannot reinterpret some of the data which appears to support Assertion. Taken to its conclusion, the argument would leave Williamson and his critics with no common ground. Moreover, as highlighted in §4.2.2, the idea that a norm can be frequently overruled
or ignored without any serious consequences makes it rather difficult to see in what sense it is a norm at all.

More generally, Kent Bach (cf. Hindriks 2007) remarks that *Assertion* does not seem to fit our understanding of communication:

‘Based on general considerations about speech acts it seems to me that the only relevant rule on assertion is belief. For assertion essentially is the expression of belief. This is just a special case of a general fact about communicative speech acts, that they are the expressions of attitudes, propositional attitudes in most cases.’ (Bach 2008, p. 77)  

Bach’s claims are supported by our endorsement of Stalnaker’s model of assertion in §1.4.2. We have seen that according to Stalnaker the point of assertion is to reduce the speakers’ context sets, and it seems fairly obvious that this can be done without the proposition expressed by the assertion being known by the speaker.

Hopefully we have done enough to show that the truth of *Assertion* is far from obvious. As noted, this puts considerable pressure on SSI. Quite generally, it does not bode well for *Action* if *Assertion* overshadows *Action* but the truth of *Assertion* is far from obvious. More precisely, given that the arguments for *Action* are the same or similar to the arguments for *Assertion*, we should be able to extend the problems for *Assertion* to *Action*. For example, Brown (2008, pp. 173-77; cf. Schiffer 2007, pp. 188-90) points out that we rely on conditions both stronger and weaker than knowledge in challenging and justifying our actions, so there is no reason to think that ordinary justifications of actions support *Action*. To see this, consider Brown’s *Shopping List* and *Affair* scenarios:

---

99 Bach (2008, p. 77) and Frank Hindriks (2007, pp. 403-04) think that something like *Assertion* can be derived from *Believed Assertion* together with a separate knowledge norm for belief (for example, believe p only if you know that p). Williamson endorses something like the knowledge norm for belief; ‘to believe p is to treat p as if one knew p’ (Williamson 2000, p. 46). In light of this, Hindriks (2007, p. 404) remarks that is unclear why Williamson argues for *Assertion* on its own terms rather than deriving it from *Believed Assertion*. We can ignore these details here.
Shopping List

‘Suppose that it’s a system between [me and my partner] for me to leave lists of urgently needed items on the kitchen table right where [my partner will] see them. Knowing we’re out of potatoes I put “potatoes” on the list on the table. After I leave, he finds a shopping list on the table and forms the justified belief that we are out of potatoes. However, unbeknownst to us, the kids have decided to make up mock shopping lists for fun. What my partner picked up was one of their lists. As he has no reason to suspect that the kids are putting fake shopping lists around the house, he has a justified belief that we are out of potatoes. Further, the belief is true: we are out of potatoes. Discovery of the kids’ prank in no way mitigates the negative assessment. For instance, it would be ridiculous for my partner to try to defend his action by pointing out that he didn’t know that we lacked potatoes, but only had a justified belief that we lacked them. Further, it seems that after the kids’ tricks have been discovered, I can still criticise his action by saying, “You should have got potatoes. You thought they were on the shopping list”.’ (Brown 2008, p. 173).

Affair

‘A husband is berating his friend for not telling him that his wife has been having an affair even though the friend has known of the affair for weeks.

Husband: Why didn’t you say she was having an affair? You’ve known for weeks.

Friend: Ok, I admit I knew, but it wouldn’t have been right for me to say anything before I was absolutely sure. I knew the damage it would cause to your marriage.
Here the friend admits knowing but claims that it would have been inappropriate for him to act on that knowledge by telling the husband.’ (Brown 2008, pp. 176-77).

In *Shopping List* Brown’s assertion ‘You should have got potatoes. You thought they were on the shopping list’ is felicitous. Brown criticises her husband’s actions by appeal to his belief. Following *Attitude*, belief is necessary but not sufficient for knowledge, so *Shopping List* provides evidence that knowledge is not necessary for appropriate action. In *Affair* the friend’s assertion ‘I admit I knew, but it wouldn’t have been right for me to say anything before I was absolutely sure’ is felicitous. The friend justifies her actions by appeal to a standard of certainty. Following *Fallibilism*, certainty is not a necessary but a sufficient condition for knowledge, so *Affair* provides evidence that knowledge is not sufficient for appropriate action.

We also saw (cf. §4.2.2) that Stanley thinks Williamson’s account of lottery propositions obscures the fact that sometimes we act on knowledge of chances. And he thinks that the stability of felicity intuitions with respect to utterances of sentences like \( \Box \Phi \), but I do not know that \( \Phi \) and \( \Box \Phi \), but I do not believe that \( \Phi \) is similar to the stability of intuitions in scenarios like Bank Case G, which suggest that there is a conceptual link between knowledge and action. We have now seen that we do not always make appropriate assertions or act appropriately based on knowledge; sometimes we do so based on conditions weaker or stronger than knowledge. Equally, we might surmise that sometimes we appropriately assert and act based on conditions weaker or stronger than knowledge of chances. We have also seen that the evidence from scenarios like Bank Case G is complex (cf. §4.3.1), so we cannot draw a straightforward conclusion that scenarios like the Bank Cases support *Action* (cf. Schiffer 2007, pp. 190-95). In light of this, I conclude that there are good reasons to doubt not only *Assertion*, but *Action*. This puts us in a position to say
without fear of question-begging that the fact that SSI contradicts Robust is a problem for the view. 100

4.4. Conclusion: the subject-sensitive invariantist scorecard

We are now in a position to review the scorecard for SSI (Table 4):

Table 4: subject-sensitive invariantist scorecard

<table>
<thead>
<tr>
<th>View</th>
<th>Scores</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Conflicts with theoretic. consider.?</th>
</tr>
</thead>
</table>

In §4.2.1 we saw that SSI can grant semantic status to felicity intuitions in Bank Cases A, B, E and G. In §4.2.2 we saw that SSI proponents believe their view is motivated by Action, which is in turn overshadowed by Assertion. However, in

100 Due to constraints of space, I leave out other potential problems for SSI. For example, it is far from clear whether SSI is consistent with Anti-Scepticism. Specifically, even if the conclusions of sceptical arguments are false according to SSI, it is not clear that SSI can explain why sceptical arguments are compelling (see e.g. Stanley 2005, pp. 125-30).
§4.3.3 we saw that there are significant reasons to doubt both *Action* and *Assertion*, so we cross these out on the scorecard. In §4.3.1 we noted that it is unclear whether SSI proponents are committed to the claim that ordinary speakers are semantically blind, but in that section and in §4.3.2 we saw that they are committed to the claim that ordinary speakers are in semantic error. We also saw that they cannot explain this error by appeal to *Scepticism Projection, Standards Projection, Projected Adaptivism* or Stanley’s alternative account, so we cross these out as well. Finally, we saw that SSI violates *Robust*. Since we have done enough to undermine both *Action* and *Assertion*, we can conclude without fear of question-begging that, following *FATSO*, there is a presumption that SSI is false. We can therefore move on to the next view.
Chapter 5

Assessor Relativism

5.1. Assessor relativist semantics

Relativism is one of the most recent developments in the knowledge attribution debate and in descriptive semantics more generally, but it is quickly growing in popularity and influence. Although there are some differences in detail, the view generally comes in two main varieties: what we can call assessor relativism and attributor relativism. Assessor relativism is advocated primarily by John MacFarlane (e.g. 2003; 2005b; 2005c; 2007a; 2014), who calls it relativism proper. Attributor relativism is advocated by Andy Egan (e.g. 2007; Egan et al 2005), Max Köbel (e.g. 2002; 2008), Mark Richard (2004), occasionally by John MacFarlane (e.g. 2007b; 2009) and others.101 It is sometimes called moderate relativism (see e.g. Köbel 2008, p. 18) or nonindexical contextualism (see e.g. MacFarlane 2009). Assessor relativism is the most influential relativist semantics for knowledge attributions (see MacFarlane 2005c; 2014, Ch. 8), so it will be my main focus here; I will say a little about attributor relativism in the postscript (cf. §5.5).

In this section I will give a brief outline of assessor relativist semantics based on KS-System from §1.4.1. In the next two sections I will explain the linguistic and theoretical motivations for assessor relativism in more detail. In the final few

101 There are middle-ground positions. For example, Peter Lasersohn (2005; 2009) advocates a view which is formally very similar to attributor relativism. However, the way in which values are assigned to the relevant parameter is more in spirit with assessor relativism than attributor relativism (cf. MacFarlane 2014, p. 89, fn. 24).
sections I will show that assessor relativists are committed to both semantic ignorance and semantic error and cannot respect Relation or Anti-Scepticism without making some fundamental concessions to scepticism. In the postscript I will briefly explain that these worries transfer wholly or in part to attributor relativism.

To begin with, let us modify KS-system from §1.4.1 in eight ways. First, as in §2.1, say that the values of the individual i, time t, location l and world w parameters of semantic contexts are given by the attributor, i.e. the person who utters the sentence we are interested in interpreting, the attributor’s time, location and world respectively. We use the subscript ‘α’ to indicate this. Second, remove the placeholder parameter n in our definition of semantic contexts. Third, say that the character of ‘know’ is a constant function from semantic contexts to a semantic value. Fourth, replace the placeholder parameter m in our definition of circumstances of evaluation with a parameter for contexts of assessment j. Contexts of assessment can be defined as sequences of different standards, such as aesthetic, moral and epistemic standards. Fifth, say that the epistemic standard in a given context of assessment is determined in accordance with the Assessor Principle:

102 Strictly speaking, this way of characterising assessor relativism is incorrect; it mixes what MacFarlane (2014, pp. 57-62) calls semantics proper with what he calls postsemantics by incorporating contexts of assessment into circumstances of evaluation. In fact, for MacFarlane circumstances of evaluation consist of various parameters – worlds, aesthetic standards, epistemic standards etc. – which are given values by contexts of assessment. Contexts of assessment do not themselves appear either as a feature of semantic contexts or circumstances. One of the main reasons for this is MacFarlane’s (2014, pp. 49-52, pp. 88-92) emphasis on the idea that it is not what parameters one adds to circumstances of evaluation that matters to whether one is a relativist, but how one assigns values to these parameters (cf. §1.4.1, fn. 35; §5.5). Thus, one could have all the same parameters in one’s circumstances of evaluation as MacFarlane and yet fail to count as a relativist in his sense. As a result, assessor relativist semantics is significantly more complex than I let on in the main text. For this reason I prefer to work with the formulation in the main text. This should make no practical difference to our aims. In particular, our formulation still correctly captures the idea that assessor relativist semantics for knowledge attributions involves relativisation of the truth of knowledge attributions to a parameter of the circumstances of evaluation besides worlds and that the value of this parameter varies as a function of the relevant context of assessment (MacFarlane 2005c, p. 218; 2014, pp. 188-89).
**Assessor Principle:** Any standard in a given context of assessment is determined by the assessor. In particular, the epistemic standard in a given context of assessment is determined by the assessor’s practical interests and by the error possibilities salient to the assessor.103

An assessor is understood as any person who evaluates the truth of the sentence we are interested in interpreting (MacFarlane 2014, p. 60). This could be the attributor, the subject of the knowledge attribution or a third party. Assessors can vary independently of possible worlds or times, so there can be multiple assessors, and therefore multiple epistemic standards, with respect to a single world and time (MacFarlane 2014, pp. 60-68). Error possibilities and practical interests are understood in exactly the same way as they were in §2.1, except with respect to the assessor rather than the attributor. That is, a proposition q counts as an error possibility with respect to a proposition p if and only if p entails not-q and q entails not-p. Error possibilities are often, although not always, made salient through being explicitly mentioned. The more there is practically at stake for and the more error possibilities salient to the assessor, the higher the epistemic standard and therefore the better the epistemic position the subject needs to be in in order for a knowledge attribution to the subject to come out true. The less there is practically at stake for and the fewer error possibilities salient to the assessor, the lower the epistemic

---

103 MacFarlane (2005c) defines his assessor relativist semantics for knowledge attributions in terms of epistemic standards. MacFarlane (2014, pp. 187-90) defines it in terms of relevant possibilities, characterised analogously to relevant alternatives in §1.3.3 and §3.1. Since epistemic standards can serve as a placeholder for a theory of relevant alternatives but not *vice versa* (cf. §3.1), and in order to maintain consistency with the other views under discussion here, I will stick with epistemic standards in our formulation of assessor relativism.

104 Occasionally, MacFarlane (e.g. 2014, pp. 260-61) seems to allow that the value of j might not be tied to individual assessors, i.e. he adopts what he calls flexible relativism. Whether we opt for flexible relativism or relativism based on the Assessor Principle should not make any difference to any of the objections I will be discussing here. Moreover, notice that a commitment to flexible relativism is in tension with MacFarlane’s (2014, pp. 243-45) criticism of the Attributor Principle†, which we mentioned in §2.3.1. That is, if we allow flexible relativism, there is no way to block very liberal characterisations of contexts of assessment, including one which incorporates all possible epistemic standards.
standard and therefore the worse the epistemic position the subject needs to be in in order for a knowledge attribution to the subject to come out true (MacFarlane 2005c, p. 199; 2014, pp. 187-90). We use the subscript ‘asp’ to indicate that the value of the context of assessment j parameter is determined in accordance with the Assessor Principle. Sixth, say that the world of the circumstance of evaluation is just the world of the semantic context, which we indicate using ‘w_c’. Seventh, we distinguish between what MacFarlane (2014, p. 64) calls assessment-sensitive and assessment-insensitive sentences. A sentence Φ is assessment-sensitive if and only if it is possible for Φ to have different truth-values when the value of the worlds parameter w_c of the circumstances of evaluation is held constant and the value of the contexts of assessment parameter j asp is varied. Φ is assessment-insensitive if and only if it is not possible for Φ to have different truth-values when the value of w_c is held constant and the value of j asp is varied. As MacFarlane explains, the present amendments to KS-System

‘Allow us to describe assessment sensitivity, but they leave open the possibility that there is no assessment sensitivity in any natural language. Existing accounts of the semantics of expressions that are not assessment-sensitive can be carried over essentially unchanged. (In these cases, the relativization to contexts of assessment will be an idle wheel, but a harmless one, because truth will not vary with the context of assessment.)’ (MacFarlane 2005c, p. 225).

Finally, say that the predicate ‘know’, and hence knowledge attributions, are assessment-sensitive (MacFarlane 2005c, p. 218; 2014, pp. 187-90). Specifically, it is possible for a knowledge attribution to have different truth-values when the value of the worlds parameter w_c of the circumstances of evaluation is held constant and the value of the contexts of assessment parameter j asp is varied by varying the epistemic standards in line with the Assessor Principle.

In light of these modifications, we get the following process for the semantic interpretation of a knowledge attribution Γ S knows that Φ ⊨:
(i) The system takes \( S \) knows that \( \Phi \) (disambiguated as required) and a semantic context \( c \) (i.e. a sequence \(<i_\alpha, t_\alpha, l_\alpha, w_\alpha>\)) as an input.

(ii) The system looks at the characters of the constituents of \( S \) knows that \( \Phi \). Constituents with fixed characters are assigned semantic values as constant functions from \( c \). Constituents with context-sensitive characters are assigned semantic values as non-constant functions from whichever parameters of \( c \) they are associated with. In particular, ‘know’ is assigned a semantic value as a constant function from \( c \).

(iii) The system combines the semantic values of the constituents of \( S \) knows that \( \Phi \) and assigns a semantic value to \( S \) knows that \( \Phi \).

(iv) The semantic value of \( S \) knows that \( \Phi \) determines the output of the system – the truth-value True or False – with respect to the world of the semantic context \( w_c \) and the context of assessment \( j_{asp} \).

Accordingly, we can replace Base Definition* from §1.4.1 with Relativist Definition:

\[ \langle [ S \text{ knows that } \Phi ] \rangle_{c_i t_i l_i w_i}^{<w_c,j_{asp}>} = \text{True if and only if at a semantic context } <i_\alpha, t_\alpha, l_\alpha, w_\alpha>, \text{ a context of assessment } j_{asp} \text{ and the world of the semantic context } w_c S \text{ confidently believes the proposition expressed by } \Phi, \text{ the proposition expressed by } \Phi \text{ is true and } S \text{'s epistemic position with respect to the proposition expressed by } \Phi \text{ meets the epistemic standard which is a member of the context of assessment } j_{asp}. \]

To see how this works, imagine that Larry and Jeff have different epistemic standards with respect to the proposition that the bank will be open. In particular, Larry has little practically at stake and few error possibilities salient to him, so he sets a low epistemic standard. In contrast, Jeff has a lot practically at stake and many error possibilities salient to him, so he sets a high epistemic standard. As a result, the
context of assessment determined with respect to Larry is different from the context of assessment determined with respect to Jeff; say the first one is $j_{asp1}$ and the second $j_{asp2}$. Now imagine that ‘Larry knows that the bank will be open’ is uttered at world $w_1$. Assume world $w_1$ contains at least Larry and Jeff, and that at $w_1$ Larry confidently believes that the bank will be open, that the bank will be open and that Larry is in a strong enough epistemic position to meet a low epistemic standard but not a high epistemic standard. Then the sentence ‘Larry knows that the bank will be open’ is true at the circumstance of evaluation $<w_c1, j_{asp1}>$ and false at $<w_c1, j_{asp2}>$. Informally, we might say ‘Larry knows that the bank will be open’ is true relative to Larry and false relative to Jeff.

The key idea behind assessor relativism (and indeed relativism more generally) is that an expression or sentence can express a single semantic value and at the same time have multiple extensions. This is the main difference between assessor relativism and attributor contextualism, according to which an expression or sentence can have multiple extensions because it can express multiple semantic values (cf. §2.1; §3.1). It also sets assessor relativism apart from invariantism (both sensitive and insensitive), according to which an expression or sentence cannot have multiple extensions because it cannot express multiple semantic values (cf. §4.1; §6.1). Indeed, it sets assessor relativism from traditional semantics quite generally. As we saw in §1.4.1, it is traditionally thought that semantic values are propositions or contributions to propositional content, and that propositions or contributions to propositional content determine extensions (Frege 1997, pp. 157-58). Since assessment-sensitive expressions and sentences can express a single semantic value but have multiple extensions, it follows that the semantic values of assessment-sensitive expressions and sentences underdetermine extensions. Therefore, the semantic values of assessment-sensitive expressions and sentences are not propositions or contributions to propositional content. Instead, we will say that they are non-propositional entities (hereafter NPEs) and contributions to non-propositional entities.\(^{105}\) The semantic values of assessment-insensitive expressions

\(^{105}\) Some philosophers (see e.g. Stanley 2005, p. 139; Einheuser 2012) refer to the semantic values of assessment-sensitive sentences as relativist or relativized propositions. For our purposes the difference is purely terminological. We need an easy way to refer to semantic values in both the
and sentences are sufficient to determine their extensions, so we will maintain the idea that the semantic values of assessment-insensitive expressions and sentences are propositions and contributions to propositional content.106

5.2. Motivations for assessor relativism

5.2.1. Linguistic motivations: Bank Cases A to J

Assessor relativists can grant the status of semantic intuitions to felicity intuitions in all of the Bank Case we have considered so far, as well as a few others (MacFarlane 2005c, pp. 218-19; cf. 2014, pp. 196-98). MacFarlane is not altogether clear who counts as the assessor in these cases. Given that readers qua ordinary speakers are engaged in the evaluation of the truth of the knowledge attributions (cf. §4.3.1), it stands to reason that any given reader counts as an assessor. However, as noted in §5.1, in theory we could count a subject, an attributor or any third party as traditional sense and in the assessor relativist sense, and I think the present terminology is less confusing than talk of relativist or relativized propositions. It is also worth re-iterating (cf. §1.4.1, fn. 33, 35) that this work is neutral with respect to whether propositions exist and what features they have if they do. Everything we have to say here about propositions and NPEs is a consequence of relativizing the truth of assessment-sensitive sentences to contexts of assessment as well as worlds.  

106 Actually, the issue is more complicated than this. On one hand, we do not need to consult the value of the contexts of assessment parameter of the circumstances of evaluation in order to determine the extension of an assessment-insensitive expression or sentence, so there is a clear sense in which the semantic values of assessment-insensitive expressions or sentences are sufficient to determine their extensions. On the other hand, the assessor relativists’ formal framework requires that a value be given to the contexts of assessment parameter in order to generate an extension for an assessment-insensitive expression or sentence. That is, even though the contexts of assessment parameter is, as MacFarlane (2005c, p. 225) puts it, an ‘idle wheel’ as far as assessment-insensitive expressions and sentences are concerned, a value still needs to be given to it (cf. MacFarlane 2014, p. 67, p. 90). Thus, there is also a sense in which the semantic values of assessment-insensitive expressions and sentences are insufficient to determine their extensions within MacFarlane’s framework. For present purposes, no harm is done if we accept that propositions are the semantic values of assessment-insensitive sentences. For related discussion, see Kaplan (1989, pp. 503-504).
an assessor, provided they engage in the evaluation of the truth of the knowledge attributions. For the sake of illustration, we will consider the Bank Cases from the points of view of the attributor \textit{qua} an assessor and an ordinary speaker (i.e. a third party) \textit{qua} an assessor.

We have seen that Larry’s utterance of the knowledge attribution ‘I know that the bank will be open’ in Bank Case A and his utterance of the knowledge denial ‘I don’t know that the bank will be open’ in Bank Case B are felicitous. In Bank Case A Larry has few error possibilities salient to him and low practical interests with respect to the proposition that the bank will be open, so his context of assessment sets a moderately low epistemic standard. Following our reasoning in §4.3.1, when other ordinary speakers are confronted with Bank Case A, they have few error possibilities salient to them and recognise low practical interests with respect to the proposition that the bank will be open, so their contexts of assessment set moderately low epistemic standards. Given that Larry was at the bank last Saturday, we will assume that he is in a moderately good epistemic position with respect to the proposition that the bank will be open (cf. §2.2.1). So Larry’s epistemic position meets the epistemic standard set by his and by another ordinary speaker’s contexts of assessment. Therefore, the sentence ‘I know that the bank will be open’ comes out true in Bank Case A whether Larry or another ordinary speaker counts as the relevant assessor. Conversely, in Bank Case B Larry has more error possibilities salient to him and higher practical interests, so his context of assessment sets a higher epistemic standard. Likewise, when other ordinary speakers are confronted with Bank Case B, they have several error possibilities salient to them and recognise higher practical interests with respect to the proposition that the bank will be open, so their contexts of assessment set higher epistemic standards. Therefore, the sentence ‘I don’t know that the bank will be open’ comes out true in Bank Case B whether Larry or another ordinary speaker counts as the assessor.

Similar reasoning applies in the other Bank Cases. For example, assessor relativists can say that the context of assessment is determined by Jeff in Bank Cases C, D, H and I, and by Larry in Bank Case G. Following our reasoning in §2.2.1 and §4.2.1, they can then say that the context of assessment sets a moderately low epistemic standard in Bank Case C and a higher epistemic standard in Bank Cases D,
G, H and I. Alternatively, assessor relativists can say that the context of assessment is determined by another ordinary speaker in all these cases. The speaker is made aware of few error possibilities and recognises low practical interests in Bank Case C, so her context of assessment sets a moderately low epistemic standard. Conversely, the speaker is made aware of several error possibilities and recognises high practical interests in Bank Cases D, G, H and I, so her context of assessment sets a higher epistemic standard. As in Bank Cases A and B, Larry is in a moderately good epistemic position with respect to the proposition that the bank will be open. So Larry meets the epistemic standard in C but not in D, G, H or I, whether the attributor or another ordinary speaker counts as the assessor.

Moreover, recall that according to assessor relativism a knowledge attribution does not express different semantic values in different semantic contexts, so there is no danger that embedded and unembedded occurrences of knowledge attributions will express different semantic values (cf. §2.3.1). That is, there is no danger that $\forall S$ knows that $\Phi$ will express different semantic values in the non-embedding construction $\forall S$ knows that $\Phi$ and the embedding construction $\forall S$ said that $S$ knows that $\Phi$. Consequently, assessor relativism can also grant the status of semantic intuitions to felicity intuitions in Bank Case E.

In short, given that the assessor may be identical with the attributor, assessor relativists can co-opt the attributor contextualist account of felicity intuitions in Bank Cases A, B, C and D (cf. §2.2.1), modified to fit with Relativist Definition. Similarly, given that the assessor may be identical with the subject, assessor relativists can co-opt the SSI account of felicity intuitions in Bank Case E (cf. §4.2.1), modified to fit with Relativist Definition.

Finally, assessor relativists introduce an additional test case for their view (see e.g. MacFarlane 2005c, pp. 202-203):

**Bank Case J**

It is Friday; Larry’s bank is open tomorrow, but he has not been to the bank in months and has not checked the bank’s opening hours; he is driving past the bank with his partner Cheryl; he has a cheque with him, but it is not
especially important that he deposits the cheque before Monday. Larry says, ‘I know that the bank will be open tomorrow, so let’s deposit the cheque then’. Later that day Cheryl says, ‘I was just thinking: many banks change their hours, so how do you know it will be open?’. Larry says, ‘That’s true. I was wrong; I don’t know that the bank will be open’.

Larry’s first utterance ‘I know that the bank will be open tomorrow’ is felicitous. Larry has no error possibilities salient to him and low practical interests with respect to the proposition that the bank will be open, so his context of assessment sets a very low epistemic standard. Similarly, when another ordinary speaker is confronted with Bank Case J, initially she has no error possibilities salient to her and recognises low practical interests with respect to the proposition that the bank will be open, so her context of assessment sets a very low epistemic standard. Given that Larry has not been to the bank in months and has not checked the bank’s opening hours, we will assume he is in a poor epistemic position with respect to the proposition that the bank will be open. Nonetheless, for the sake of the argument, we will also assume that a poor epistemic position is still sufficiently strong to meet a very low epistemic standard. So Larry’s epistemic position meets the epistemic standard set by his and by another ordinary speaker’s contexts of assessment. Therefore, the sentence ‘I know that the bank will be open’ comes out true.

Larry’s later utterance ‘I was wrong; I don’t know that the bank will be open’ is also felicitous. Later in the case an error possibility is made salient to Larry, so his context of assessment changes and sets a higher epistemic standard. Similarly, when an ordinary speaker is confronted with the later part of Bank Case J, she has one error possibility salient to her and recognises low practical interests with respect to the proposition that the bank will be open, so her context of assessment changes and sets a higher epistemic standard. Larry remains in a poor epistemic position with respect to the proposition that the bank will be open. We will assume that a poor epistemic position is not strong enough to meet the higher epistemic standard. So Larry’s epistemic position fails to meet the epistemic standard now set by his and by
an ordinary speaker’s contexts of assessment. Therefore, the sentence ‘I was wrong; I don’t know that the bank will be open’ comes out true.\(^{107,108}\)

### 5.2.2. Theoretical motivations: Closure and Anti-Scepticism

The primary motivation for assessor relativism is linguistic; in the previous section we saw that the view can grant the status of semantic intuitions to felicity intuitions in all the Bank Cases we have encountered so far. Indeed, in earlier work MacFarlane (2005c, pp. 218-19) gave the impression that assessor relativism requires no commitment to the claim that ordinary speakers are in semantic error. Perhaps as a result of this, there has been relatively little discussion of the theoretical motivations and consequences of assessor relativism about ‘know’ (cf. MacFarlane 2005c, pp. 231-32). More recently however, MacFarlane (2014, pp. 176-77) has claimed that assessor relativism is consistent with Closure and Anti-Scepticism. The basic thought is that assessor relativists can co-opt the attributor contextualist

---

\(^{107}\) One might wonder why Larry’s later utterance ‘I was wrong’ is felicitous given that the sentence ‘I know that the bank will be open’ is true with respect to Larry’s and another ordinary speaker’s earlier contexts of assessment. Recall that the extension of ‘I know that the bank will be open’ does not vary with respect to times, but with respect to worlds and contexts of assessment. In light of this, the sentence ‘I know that the bank will be open’ can be true with respect to one context of assessment and all times and false with respect to another context of assessment and all times. Thus, when Larry’s and another ordinary speaker’s contexts of assessment change such that the sentence ‘I know that the bank will be open’ comes out false, the sentence comes out false at all times, including the time when Larry’s and an ordinary speaker’s contexts of assessment were different. To put it another way, the process of re-evaluating a sentence as false implies that any utterance of the sentence, including any utterance prior to the re-evaluation, is mistaken. For related discussion, see MacFarlane (2005a, p. 229; 2005b, p. 320; 2014, pp. 108-10).

\(^{108}\) Notice that attributor contextualists cannot grant semantic status to felicity intuitions in Bank Case J. According to attributor contextualism, because Larry’s epistemic standard goes up over the course of the case, his utterance of the sentence ‘I know that the bank will be open tomorrow’ and his later utterance of the sentence ‘I don’t know that the bank will be open’ express different propositions. Specifically, ‘know’ is assigned a different semantic value in the two sentences. Moreover, both the proposition expressed at the earlier time and the proposition expressed at the later time may be true. Therefore, Larry’s utterance ‘I was wrong’ should be infelicitous (MacFarlane 2005c, pp. 209-10).
accounts of Closure and Anti-Scepticism (cf. §2.2.2), but modify it to fit with Relativist Definition.

Recall sentence (1) from §2.2.2:

(1) If Larry knows that the bank will be open on Saturday and Larry knows that if the bank will be open on Saturday then the bank will not be closed on Saturday, then Larry knows that the bank will not be closed on Saturday.

If the value of the context of assessment parameter j$_{asp}$ is held fixed when evaluating each of the constituent clauses of (1), and especially each occurrence of ‘know’, then according to assessor relativism (1) comes out true. In other words, if the value of j$_{asp}$ is held fixed across the whole of sentence (1), then according to assessor relativism (1) comes out true. To see this, we can represent the assessor relativist analysis of (1) as (1*), using the subscript ‘j$_{asp}$1’ to show that ‘know’ is assigned an extension with respect to the context of assessment j$_{asp}$1:

(1*) If Larry knows$_{jasp1}$ that the bank will be open on Saturday and Larry knows$_{jasp1}$ that if the bank will be open on Saturday then the bank will not be closed on Saturday, then Larry knows$_{jasp1}$ that the bank will not be closed on Saturday.

Given that (1) is an instance of Closure, it follows that assessor relativists can say Closure is true only if they can hold the value of j$_{asp}$ fixed across any single instance of Closure, which amounts to a modification of this theoretical consideration. That is, assessor relativists cannot say that $\Gamma$ If S knows that $\Phi$ and S knows that $\Phi$ entails $\Psi$, then S knows that $\Psi \models$ is true simpliciter, but true only with respect to a single value of j$_{asp}$. Nonetheless, if knowledge attributions are assessment-sensitive, then this is just the kind of modification we should expect.

We can apply similar reasoning with regards to Anti-Scepticism. Recall the following instance of the Argument from Ignorance (AI) from §2.2.2:

Argument from Ignorance
P1. Larry does not know that he is not a BIV (brain-in-a-vat).
P2. Larry knows that if he has hands then he is not a BIV.
P3. If Larry does not know that he is not a BIV and Larry knows that if he has hands then he is not a BIV, then Larry does not know that he has hands.
C. Larry does not know that he has hands.

Whereas Closure is framed in terms of modus ponens, the truth of P3 relies on modus tollens. However, for all intents and purposes we can treat P3 as an instance of Closure. We have just seen that we need to hold the value of jasp fixed across sentences like P3 if we want to preserve Closure. By the same reasoning, we need to hold the value of jasp fixed across P1 to C if we want to preserve the validity of AI. We noted in §2.2.2 that the BIV and other radical sceptical hypotheses are a kind of error possibility par excellence, i.e. they impose epistemic standards which are too high for any humanly attainable epistemic position to meet. Of course, P1 of AI embeds the BIV hypothesis, so anyone who evaluates P1 imposes an extremely high epistemic standard. Given that AI must be evaluated with respect to a single value of jasp, it follows that AI is not only valid but sound according to assessor relativism. This explains why sceptical conclusions can be compelling: they are true when they feature in sceptical arguments like AI.

Assessor relativists can also say that sceptical conclusions are false. Recall the following instance of the Argument from Knowledge (AK) from §2.2.2:

*Argument from Knowledge*

P1. Larry knows that he has hands.
P2. Larry knows that if he has hands then he is not a BIV.
P3. If Larry knows that he has hands and Larry knows that if he has hands then he is not a BIV, then Larry knows that he is not a BIV.
C. Larry knows that he is not a BIV.
We have seen that we need to hold the value of \( j_{\text{asp}} \) fixed across sentences like P3. By the same reasoning, we need to hold the value of \( j_{\text{asp}} \) fixed across P1 to C if we want to preserve the validity of AK. Given that P1 does not embed a radical sceptical hypothesis, we will assume that someone who evaluates P1 may impose a reasonably low epistemic standard. And given that AK must be evaluated with respect to a single value of \( j_{\text{asp}} \), it follows that AK may be sound according to assessor relativism. In other words, the anti-sceptical conclusion that Larry knows that he is not a BIV can come out true. Assessor relativism preserves both (a modified version of) Closure and Anti-Scepticism.

5.3. Against assessor relativism

5.3.1. Linguistic problems: Bank Case K and semantic error

I think it is fairly clear that assessor relativism requires a commitment to semantic blindness. In order to see this, compare assessor relativism about ‘know’ with assessor relativism about predicates of personal taste, like ‘tasty’ or ‘fun’ (MacFarlane 2014, Ch. 7). Assessor relativism about ‘tasty’ works in much the same way as assessor relativism about ‘know’, except the extension of ‘tasty’ varies with respect to assessors’ tastes, rather than epistemic standards. Even if we have theoretical reservations about assessor relativism about ‘tasty’, I do not think it is difficult to imagine that an ordinary speaker would accept the idea that the truth-value of a sentence like ‘Marmite is tasty’ varies with respect to different individuals. In contrast, I think it is difficult to imagine that an ordinary speaker would accept the idea that the truth-value of a sentence like ‘Larry knows that the bank will be open’ varies with respect to different individuals. To put it in Stephen Schiffer’s (1996, pp. 326-27) words, adapted from his discussion of attributor contextualism (cf. §2.3.1), no ordinary person who utters ‘Larry knows that the bank will be open’, however articulate, would dream of telling you that what she had in mind is something along
the lines of ‘Relative to me Larry knows that the bank will be open’.\footnote{Presumably, ‘relative to me’ denotes a particular value of the $j_{asp}$ parameter, which belongs to the meta-language of the modified KS-System. ‘Larry knows that the bank will be open’ belongs to the object language; it is the sentence which is evaluated with respect to the value of the $j_{asp}$ parameter. In light of this, one might object that by concatenating ‘relative to me’ and ‘Larry knows that the bank will be open’ without any quotation marks around ‘Larry knows that the bank will be open’ we confuse the object language and the meta-language used to discuss the object language. This need not be the case. Given that the semantic value of the predicate ‘know’ underdetermines its extension, it does not have an extension at stage (iii) of our process of semantic interpretation (cf. §5.1), i.e. at the compositional stage. This leaves us free to stipulate that the compositional function of ‘relative to me’ is to force the $j_{asp}$ parameter of the circumstances of evaluation to take the speaker’s context of assessment as its value. In this case ‘Relative to me Larry knows that the bank will be open’ does not confuse the object language and the meta-language. For related discussion, see Wright (2008, p. 177).} To see this, compare the following conversations:

*Conversation 1*

Jeff: Marmite is tasty.
Suzie: Marmite is not tasty.
Jeff: Well, relative to me Marmite is tasty, maybe not relative to you.

*Conversation 2*

Jeff: Larry knows that the bank will be open.
Suzie: Larry doesn’t know it.
Jeff: Well, relative to me Larry knows that the bank will be open, maybe not relative to you.

None of the utterances in the first conversation seem infelicitous. In contrast, it seems to me that in the second conversation Jeff’s last utterance is infelicitous. Indeed, there is a perfectly ordinary way of talking using ‘tasty’ which is analogous
to the first conversation but which simply does not exist for ‘know’ (cf. Stanley 2005, pp. 147-51; MacFarlane 2014, pp. 199-200):

Conversation 3

Jeff: Marmite is tasty.
Suzie: Marmite is not tasty.
Jeff: Well, Marmite is tasty to me, maybe not to you.

Even if assessor relativists are committed to the claim that ordinary speakers are semantically blind, we have noted on several occasions (e.g. §2.3.1) that this need not be a serious problem; what we are really interested in is whether assessor relativists are committed to the claim that ordinary speakers are in semantic error. Although in earlier work MacFarlane (2005c, pp. 218-19) gave the impression that assessor relativism requires no commitment to semantic error, more recently he seems to have conceded that this was a mistake (MacFarlane 2014, pp. 196-98; cf. Dietz 2008; Montminy 2009b). Consider the following case:

Bank Case K

It is Friday; Larry’s bank is open tomorrow; he was at the bank last Saturday and confidently believes that the bank will be open tomorrow; he is driving past the bank with his partner Cheryl; he has a cheque with him, and it is very important that he deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. Cheryl says, ‘But banks change their hours’. Larry says, ‘I guess you are right; I don’t know that the bank will be open tomorrow’. Later that day Larry has deposited his cheque and no longer has high practical interests with respect to the proposition that the bank will be open. He has forgotten most of his conversation with Cheryl, but he remembers conceding that he does not know that the bank will be open
tomorrow. He now says, ‘I was wrong; I do know that the bank will be open tomorrow’.

Larry’s later utterance ‘I was wrong; I do know that the bank will be open tomorrow’ is infelicitous. However, assessor relativism predicts that it should be felicitous. At the end of the case Larry has no error possibilities salient to him and low practical interests with respect to the proposition that the bank will be open, so his context of assessment sets a low epistemic standard. Similarly, when an ordinary speaker is confronted with the end of Bank Case K, she should ignore any error possibilities which might be salient to her and recognise low practical interests with respect to the proposition that the bank will be open, so her context of assessment should set a low epistemic standard. Given that Larry was at the bank last Saturday, we will assume that he is in a moderately good epistemic position with respect to the proposition that the bank will be open. So Larry’s epistemic position should meet the epistemic standard set by his and by an ordinary speaker’s contexts of assessment at the end of the case. Therefore, the sentence ‘I was wrong; I do know that the bank will be open’ comes out true. So assessor relativists are committed to the claim that ordinary speakers are in semantic error in Bank Case K. Moreover, unlike some of their rivals (cf. §4.3.1), assessor relativists do not attempt to explain why ordinary speakers are in semantic error here (cf. MacFarlane 2014, pp. 198-200).

5.3.2. Theoretical problems part I: Relation

Consider the following sentence:

Montminy (2009b, p. 354) points out that in general speakers are reluctant to retract earlier utterances when they transition from (what they perceive as) more to less enlightened states. For example, in Bank Case K Larry transitions from a state where he has high practical interests and several error possibilities salient to him to a state where his practical interests have decreased and he has forgotten the error possibilities.
(2) If Alice sees that she is down a rabbit hole, then Alice knows that she is
down a rabbit hole.

For the sake of the argument, let us assume that the antecedent of (2) – the
sentence ‘Alice sees that she is down a rabbit hole’ – is contingently true and
assessment-insensitive. Specifically, assume that it is true at every circumstance of
evaluation consisting of the possible world \( w_{c1} \) and a context of assessment \( j_{asp1}, j_{asp2} \ldots j_{aspn} \), i.e. it is true at the circumstances \( <w_{c1}, j_{asp1}> \), \( <w_{c1}, j_{asp2}> \) and so on.

Following §5.1, the sentence ‘Alice knows that the she is down a rabbit hole’
is assessment-sensitive. The truth of this sentence is supposed to vary both with
worlds and contexts of assessment. For the sake of the argument, let us assume that
‘Alice knows that the she is down a rabbit hole’ is true at the circumstance of
evaluation consisting of the possible world \( w_{c1} \) and the context of assessment \( j_{asp1} \), i.e. the circumstance \( <w_{c1}, j_{asp1}> \). Note that this stipulation is arbitrary; it may turn out
that ‘Alice knows that the she is down a rabbit hole’ is true at circumstances besides
\( <w_{c1}, j_{asp1}> \). The crucial point is that, given that the sentence ‘Alice sees that the she
is down a rabbit hole’ is assessment-insensitive and the sentence ‘Alice knows she is
down a rabbit hole’ is assessment-sensitive, there must be at least one circumstance
of evaluation at which the former is true but the latter is false. Specifically, while
‘Alice sees she is down a rabbit hole’ is true at every pair of the possible world \( w_{c1} \)
and a context of assessment \( j_{asp1}, j_{asp2} \ldots j_{aspn} \), ‘Alice knows that the she is down a
rabbit hole’ must be false at at least one pair of the possible world \( w_{c1} \) and a context
of assessment \( j_{asp}. \)

Now, according to the standard semantics for indicative conditionals, an
indicative conditional \( \text{⌜If } \Phi \text{, then } \Psi \text{⌝} \) is true at a circumstance of evaluation only if
\( \Psi \) is true at every circumstance of evaluation at which \( \Phi \) is true.\(^{111}\) If we combine

\(^{111}\) There are well-known disputes regarding the semantics of indicative conditionals, such as whether
\( \text{⌜If } \Phi \text{, then } \Psi \text{⌝} \) is true if \( \Phi \) is false but \( \Psi \) is true and whether \( \Phi \) needs to stand in some kind of
relevance relation to \( \Psi \). Therefore, one might argue that there is no such thing as the standard
semantics for indicative conditionals. In fact, the necessity condition I am relying on, i.e. \( \text{⌜If } \Phi \text{, then } \Psi \text{⌝} \) is true at a circumstance of evaluation only if \( \Psi \) is true at every circumstance of evaluation at
which \( \Phi \) is true, is compatible with both these ideas. Moreover, there is general consensus that this
this with the assessor relativist framework, it follows that \( \Gamma \) If \( \Phi \), then \( \Psi \) \( \gamma \) is true at a circumstance of evaluation \( <w_c, j_{asp}> \) only if, for all worlds \( w_a \) and contexts of assessment \( j_a \) at which \( \Phi \) is true, \( \Psi \) is true at \( <w_a, j_a> \).\(^1\) We have just seen that there must be at least one circumstance of evaluation at which ‘Alice sees that she is down a rabbit hole’ is true but ‘Alice knows that she is down a rabbit hole’ is false. For example, ‘Alice sees that she is down a rabbit hole’ is true but ‘Alice knows that the she is down a rabbit hole’ is false at the circumstance of evaluation \( <w_{c1}, j_{asp2}> \). So it follows that sentence (2) is false.

Sentence (2) is an instance of a more general principle, viz. that seeing is sufficient for knowing, which is in turn one aspect of the theoretical consideration

Relation:

\[ \text{Relation: Seeing, hearing, touching and other ways of perceiving that } p \text{ are sufficient for knowing that } p. \]

So it follows that assessor relativism is inconsistent with Relation. However, before we can conclude that this poses a problem for assessor relativism, we need to deal with a range of potential responses.

First, it might seem obvious that the way to preserve both Relation and assessor relativism about ‘know’ is to reject the standard semantics for indicative conditionals, viz. to deny that an indicative conditional is true at a circumstance of evaluation only if the consequent of the conditional is true at every circumstance of evaluation at which the antecedent is true. In particular, there may be some necessity condition is correct – i.e. there is a general consensus that \( \text{"If } \Phi \text{, then } \Psi \text{" is true only if whenever } \Phi \text{ is true, } \Psi \text{ is true} \) – so for our purposes we can say there is a standard semantics for indicative conditionals (see e.g. Edgington 2006).

\(^1\) In fn. 102 in §5.1 we noted that, strictly speaking, contexts of assessment do not enter into circumstances of evaluation. Therefore, strictly speaking, contexts of assessment should not enter into our definition of the semantics of indicative conditionals above. However, we would get the same outcomes if we followed MacFarlane’s (2014, pp. 187-90) semantics for knowledge attributions to the letter as we do with our simpler formulation in the main text. In light of this, I stick with our simpler formulation.
independent motivation for thinking that indicative conditionals are assessment-sensitive (see e.g. Kolodny and MacFarlane 2010; Stephenson 2007).

Here is a fairly simple-minded way to accommodate this idea: we say that \( \text{⌜If } \Phi, \text{ then } \Psi \text{⌟} \) is true at a circumstance of evaluation \( \langle w_c, j_{asp} \rangle \) only if, for all worlds \( w_a \) and the relevant context of assessment \( j_r \) at which \( \Phi \) is true, \( \Psi \) is true at \( \langle w_a, j_r \rangle \). According to this view, sentence (2) may be true. For instance, earlier we stipulated that ‘Alice sees that she is down a rabbit hole’ is true at the circumstances of evaluation \( \langle w_{c1}, j_{asp1} \rangle, \langle w_{c1}, j_{asp2} \rangle \) and so on. We then imagined that \( \langle w_{c1}, j_{asp1} \rangle \) is the circumstance of evaluation at which ‘Alice knows that she is down a rabbit hole’ is true. If we now suppose that \( j_{asp1} \) is the relevant context of assessment \( (j_r = j_{asp1}) \), then sentence (2) may come out true. Specifically, ‘Alice knows that she is down a rabbit hole’ is true at all the worlds (i.e. \( w_{c1} \)) and the relevant context of assessment (i.e. \( j_{asp1} \)) at which ‘Alice sees that she is down a rabbit hole’ is true.

However, even if we grant that indicative conditionals are assessment-sensitive, we should be able to derive the conclusion that assessor relativism is inconsistent with Relation. Suppose that ‘objectively’ is an operator on circumstances of evaluation which shifts the contexts of assessment parameter to all contexts of assessment (cf. §5.1, fn. 102).\(^{113}\) Now replace sentence (2) with (3):

\(^{113}\) Some opponents of assessor relativism (see e.g. Stanley 2005, pp. 147-52; cf. Cappelen and Hawthorne 2009, pp. 68-88) argue that if circumstances of evaluation contain a parameter for contexts of assessment, then there should be good candidates in natural language for operators on contexts of assessment. Some assessor relativists (see e.g. MacFarlane 2014, pp. 82-84) dispute this claim. By the same token, they might also reject the idea that ‘objectively’ (or any other expression) is an operator on contexts of assessment. There are at least three worries with this move. Firstly, assessor relativists would be depriving themselves of additional linguistic evidence for their view. In turn, this may make it easier for an argument against the existing linguistic evidence for assessor relativism to succeed (cf. §5.3.1). Secondly, even if there are no good candidates in natural language for operators on contexts of assessment, these operators might still be allowed in the assessor relativist formal semantics. If so, we can still derive the conclusion that assessor relativist semantics is inconsistent with Relation. Finally, if we can claim that (3) is more naturally interpreted as an instance of Relation than (2), then we may be able to motivate the idea that ‘objectively’ is an operator on contexts of assessment. Specifically, if (3) is more naturally interpreted as an instance of Relation than (2), that suggests there is a salient difference between (2) and (3). A natural explanation is that the extension of (3) is regarded as independent of the evaluation by an individual. In assessor relativist semantics
(3) Objectively, if Alice sees that she is down a rabbit hole, then Alice knows that she is down a rabbit hole.

According to the simple-minded approach above, the assumption that ‘Alice sees that she is down a rabbit hole’ is assessment-insensitive and the assessor relativist thesis that ‘Alice knows that she is down a rabbit hole’ is assessment-sensitive, (3) is false. Specifically, the worlds and the relevant context of assessment at which ‘Alice sees that she is down a rabbit hole’ is true is just the world $w_{c1}$ and, due to the ‘objectively’ operator, all contexts of assessment. Given our assumptions above, ‘Alice knows that she is down a rabbit hole’ is true only at world $w_{c1}$ and context of assessment $j_{asp1}$. So it follows that ‘Alice knows that she is down a rabbit hole’ is not true at all the worlds and the relevant context of assessment at which ‘Alice sees that she is down a rabbit hole’ is true.$^{114}$

One could make more sophisticated amendments to the semantics of indicative conditionals, but the consequences are the same. For instance, Niko Kolodny and MacFarlane (2010, pp. 130-36) argue that all indicative conditionals contain the epistemic necessity operator ‘$\Box_e$’ in the logical form (LF) of the consequent. This operator is indexed to the information state, i.e. a set of epistemically possible worlds, of the assessor (Kolodny and MacFarlane 2010, pp.

---

$^{114}$ In other words, the function of the 'objectively' operator here is, very roughly, to convert the semantic value of sentence (2) according to assessor relativism and the simple-minded approach to the idea that indicative conditionals are assessment-sensitive into the semantic value of sentence (2) according to assessor relativism and the standard semantics for indicative conditionals.
All indicative conditionals also contain the operator $\Box$ $[\text{If } \Phi] \iff$ in the LF of the antecedent, which contracts this information state (cf. Stephenson 2007). More formally, where $<w_e, i>$ is a circumstance of evaluation consisting of an epistemically possible world $w_e$ and the information state $i$ of the assessor, an indicative conditional $\Box$ $[\text{If } \Phi$, then $\Psi$] is analysed as $\Box$ $[\text{If } \Phi] \Box_e \Psi \iff$ in LF, which is true at $<w_e, i>$ if and only if, for all epistemically possible worlds $w_e^1 \in i^1$, where $i^1$ is the largest subset of $i$ at which $\Phi$ is true, $\Psi$ is true at $<w_e^1, i^1>$.\footnote{An epistemically possible world is a world which is possible given what the relevant individual (in this case the assessor) knows about the actual world.}

Now, given that Kolodny and MacFarlane’s definition of circumstances of evaluation diverges from the definition in §5.1 above, I am not entirely sure how we are supposed to check whether an assessment-sensitive sentence is true at all the epistemically possible worlds in the contracted information state $i^1$. Nonetheless, here is a fairly natural suggestion: if sentence $\Psi$ is assessment-sensitive and false with respect to the value of the relevant context of assessment, the information state $i$ relevant to the interpretation of the indicative conditional $\Box$ $[\text{If } \Phi$, then $\Psi$] cannot contain any epistemically possible worlds at which $\Psi$ is true. \textit{A fortiori}, the contracted information state $i^1$ cannot contain any epistemically possible worlds at which $\Psi$ is true. Call the information state $i$ and the contracted information state $i^1$ context-of-assessment-restricted (CA-restricted).

The idea that information states which are used for the interpretation of indicative conditionals are CA-restricted is directly analogous to the simple-minded approach set out at the start of this section. To see this, take sentence (2) again. According to Kolodny and MacFarlane’s proposal, (2) is analysed as $\Box$ $[\text{If Alice sees that she is down a rabbit hole} \Box_e \text{Alice knows that she is down a rabbit hole} \iff$ at LF, which is true at a circumstance of evaluation $<w_e, i>$ if and only if, for all epistemically possible worlds $w_e^1 \in i^1$, where $i^1$ is the largest subset of the assessor’s information state $i$ at which ‘Alice sees that she is down a rabbit hole’ is true, ‘Alice knows that she is down a rabbit hole’ is true at $<w_e^1, i^1>$. Less formally, the\footnote{This omits most of the finer details of Kolodny and MacFarlane’s account, but it serves our present purposes.}
antecedent of (2) contracts the assessor’s information state to the largest subset of epistemically possible worlds $i^1$ at which ‘Alice sees that she is down a rabbit hole’ is true. The truth of the conditional is then determined by checking whether ‘Alice knows that she is down a rabbit hole’ is true at all the epistemically possible worlds in this contracted information state. If the contracted information state is CA-restricted, then ‘Alice knows that she is down a rabbit hole’ is true at all the epistemically possible worlds in the contracted information state only if ‘Alice knows that she is down a rabbit hole’ is not false with respect to the relevant context of assessment. Given our previous assumptions, it follows that ‘Alice knows that she is down a rabbit hole’ is true at all the epistemically possible worlds in the contracted information state only if the relevant context of assessment is $j_{asp1}$. Therefore, (2) is true only if the relevant context of assessment is $j_{asp1}$. This is directly analogous to the simple-minded approach above, so we should expect Kolodny and MacFarlane’s view to have all the same consequences.

In sum, both the simple-minded and the more sophisticated versions of the idea that sentences like (2) are assessment-sensitive appear to avoid the conclusion that assessor relativism is inconsistent with Relation. However, if we treat a phrase

\[ \text{(2)} \]

117 Here is a more picturesque way of looking at this. When we want to determine the truth-value of ‘If Alice sees that she is down a rabbit hole, then Alice knows that she is down a rabbit hole’ we start with a sphere of epistemically possible worlds $i$, i.e. the set of worlds which are possible given what the relevant individual knows about the actual world. Given that the relevant individual is the assessor, it stands to reason that the membership of this set will reflect her context of assessment. Specifically, the sphere $i$ will include worlds which are possible given what the assessor knows about the actual world and the values of the parameters of her context of assessment. Next, the operator $\lbrack\text{Alice sees that she is down a rabbit hole}\rbrack^*$ restricts the sphere $i$ to the sphere $i^1$, i.e. the set of epistemically possible worlds compatible with the truth of ‘Alice sees that she is down a rabbit hole’. We then check whether ‘Alice knows that she is down a rabbit hole’ is true at all these epistemically possible worlds. If we assume that ‘Alice knows that she is down a rabbit hole’ is assessment-sensitive and false with respect to the assessor’s context of assessment, then the sphere $i$ is restricted to worlds compatible with the negation of ‘Alice knows that she is down a rabbit hole’. A fortiori, the sphere $i^1$ is restricted to worlds compatible with the negation of ‘Alice knows that she is down a rabbit hole’. It follows that ‘Alice knows that she is down a rabbit hole’ is false at all epistemically possible worlds in $i^1$ and therefore that ‘If Alice sees that she is down a rabbit hole, then Alice knows that she is down a rabbit hole’ is false.
like ‘objectively’ as an operator which shifts the contexts of assessment parameter to all contexts of assessment, we can get this conclusion anyway by appeal to sentences like (3).

Another obvious way to try to preserve both Relation and assessor relativism about ‘know’ is to claim that both the antecedent and the consequent of sentence (2) are assessment-sensitive. This would allow the semantic values of the antecedent and the consequent to line up in such a way that this sentence could come out true. For example, suppose that sentences Φ and Ψ are assessment-sensitive and true at the circumstance of evaluation <w_{c1}, jasp1>. Then Ψ is true at all the circumstances of evaluation at which Φ is true, which complies with the standard semantics for the truth of \( \text{If } \Phi \text{, then } \Psi \).\(^{118}\)

Indeed, it might seem obvious that anyone who thinks that the consequent of sentence (2) is assessment-sensitive would also think that the antecedent of (2) is assessment-sensitive (see e.g. Richard 2004). However, this idea runs into at least three problems. Firstly, it is ad hoc; assessor relativists cannot claim that the antecedent of sentence (2) is assessment-sensitive just in order to avoid the conclusion that their view is inconsistent with Relation. Secondly, if assessor relativists make this move, it is unclear to what extent they can sustain the distinction between assessment-sensitive and assessment-insensitive sentences, which is a crucial selling point for their view (cf. §5.1). Finally, and relatedly, there are cases where, even if we accept that the consequent of a conditional is assessment-sensitive, it is difficult to accept that the antecedent is assessment-sensitive. For example, suppose we concede that ‘Alice sees that she is down a rabbit hole’ is assessment-sensitive, but we also think that some physical process – call it Process X – is sufficient for Alice to see that she is down a rabbit hole. For example, suppose Process X is something like Alice’s visual cortex receiving signals from her retinas struck by light reflected at a certain angle from the bottom of a rabbit hole. Then we will think that the following sentence is true:

\(^{118}\) This need not be the case. For example, if Φ is sensitive to a different parameter in the context of assessment sequence than Ψ (e.g. Φ is sensitive to epistemic standards but Ψ to aesthetic standards), then Φ and Ψ may be true at different circumstances of evaluation, and therefore \( \text{If } \Phi \text{, then } \Psi \) \( \text{may be false. We can ignore this complication here.} \)
(4) If Process X occurs, then Alice sees that she is down a rabbit hole.

Given that the sentence ‘Process X occurs’ describes a physical process, one which seems entirely independent of someone’s epistemic, aesthetic, moral or other standards, it is difficult to see how it could be assessment-sensitive. Yet if we accept that ‘Process X occurs’ is assessment-insensitive, sentence (4) comes out false by analogy with our reasoning above. In short, the idea that we should accept the assessment-sensitivity of both the antecedent and the consequent of sentence (2) can avoid the conclusion that assessor relativism is inconsistent with Relation, but runs into other controversial consequences.

Perhaps the most radical way to avoid the conclusion that assessor relativism is inconsistent with Relation is to claim that assessment-sensitive and assessment-insensitive sentences should not be analysed within a single semantic framework. Specifically, assessor relativists could say that the framework sketched in §5.1 applies only to assessment-sensitive sentences and some more traditional framework applies to assessment-insensitive sentences. This move is problematic for at least three reasons: it contradicts the letter of the relativist approach (cf. §5.1); it is ad hoc; and it deprives us of any understanding of how assessment-sensitive and assessment-insensitive sentences might interact with one another (e.g. it is unclear how we ought to interpret sentences like (2)).

As a last resort, assessor relativists could concede that their view is inconsistent with Relation but attempt to spread the burden of the argument to rival views. For example, we saw that according to attributor contextualism the sentence ‘Alice knows that she is down a rabbit hole’ expresses different semantic values in different contexts of utterance (cf. §2.1) Given this, the standard semantics for indicative conditionals and the assumption that ‘see’ is context-insensitive, there could be contexts of utterance with respect to which sentence (2) is false.

In fact, attributor contextualists can avoid the conclusion that their view is inconsistent with Relation. In §2.1 we saw that according to attributor contextualism

119 For example, Kaplan’s (1989) original framework, which is not enriched with a parameter for contexts of assessment (cf. §1.4.1).
the sentence ‘Alice knows that she is down a rabbit hole’ expresses different semantic values in different semantic contexts. For example, we can say ‘Alice knows that she is down a rabbit hole’ expresses the proposition that Alice knows-LOW that she is down a rabbit hole in one semantic context, that Alice knows-HIGH that she is down a rabbit hole in another semantic context, and so on. It might turn out that seeing is not sufficient for knowing-HIGH but that seeing is sufficient for knowing-LOW, in which case attributor contextualists can argue that there is at least some sense in which seeing is sufficient for knowing. In contrast, assessor relativists believe that assessment-sensitive sentences express a single semantic value, so they cannot say that sentences like ‘Alice knows that she is down a rabbit hole’ express different propositions in different semantic contexts or context of assessment and thus they cannot make the same argument as attributor contextualists here. In short, the suggestion that assessor relativists can spread the burden of the argument amongst rival views is not promising. I conclude that assessor relativists do not have a satisfactory way to avoid the conclusion that their view is inconsistent with Relation.

5.3.3. Theoretical problems part II: Anti-Scepticism revisited

In traditional possible worlds semantics a proposition is modelled as a set of possible worlds at which that proposition is true (cf. §1.4.1). For instance, if a proposition p is modelled as the set of worlds \{w_1, w_2\}, then p is true at w_1 and w_2. It follows that if a proposition is in fact true, then the actual world is a member of the set of worlds used to model that proposition. For example, if p is true, then the actual world is either w_1 or w_2. Because of this, true propositions are said to locate the actual world in the space of possible worlds, or to represent the actual world (see e.g. Stalnaker 1999, pp. 79-80). Crispin Wright points out that the same cannot be said about NPEs, i.e. the semantic values of assessment-sensitive sentences:

‘What state of affairs might we think of [the NPE] P as representing [on the assessor relativist view]? Nothing, presumably, that might be mentioned in a
compendious description of [the actual world] – since those matter are all, as far as they go, neutral on the question of the truth of P, whereas the obtaining of a state of affairs of a kind represented by P would have to suffice for its truth. But nor are we at liberty to think of P as representing some state of affairs of the form: by standard so-and-so, such-and-such is the case – for that would be to misrepresent its content. […] It looks as though the [assessor relativist] model excludes representationality.’ (Wright 2008, p. 168)

In other words, NPEs do not locate the actual world in the space of possible worlds. On one hand, it is incorrect to say that if a NPE p is true, then the actual world is not any of those worlds where not-p is true, for it may well turn out that p is false and p is true with respect to the very same world; all that is required for this verdict is a shift in the relevant context of assessment. On the other hand, NPEs do not locate the actual world and a context of assessment in the space of possible worlds, since contexts of assessment are not part of the semantic values of sentences. Following Wright (2008, p. 170), I will refer to this issue as the Non-Representationality Conjecture.

Wright points out that assessor relativists face a general dialectical disadvantage if they accept the Conjecture:

‘There is […] a good question about why, if the Non-Representationality Conjecture is correct, anyone should want to propose truth-relativism for any of the broadly anti-realist reasons that have been traditional. For if there is a solid case that particular discourse is not representational in content, that already undermines the realism associated with absolutism. […] Some deflated or minimalist line of goods will serve all the purposes worth serving.’ (Wright 2008, p. 171)

That is, suppose that assessor relativists simply bite the bullet and accept the Conjecture, i.e. they accept that NPEs are non-representational. Even if this is not problematic in itself, it opens the dialectical space to rival views which may carry less radical semantic commitments and consequences than assessor relativism.
Moreover, these views may be quite independent of the immediate rivals of assessor relativism, like attributor contextualism or SSI.

More importantly for our purposes, the Conjecture raises a special problem with respect to knowledge attributions. In §5.2.2 we saw that assessor relativists believe their view is consistent with *Anti-Scepticism*. Specifically, we saw that the conclusion ‘Larry doesn’t know that he has hands’ of the *Argument from Ignorance* is true with respect to contexts of assessment with very high epistemic standards and may be false with respect to contexts of assessment with lower epistemic standards. The problem is that according to the Non-Representationality Conjecture ‘Larry doesn’t know that he has hands’ is non-representational. And this constitutes a fundamental concession to the sceptic; not an acknowledgement that knowledge attributions are usually false, but a surrender of the idea that knowledge attributions are about the world to begin with. That is, according to assessor relativism knowledge attributions express NPEs. Following the Non-Representationality Conjecture, NPEs do not represent the world. Given that knowledge attributions express NPEs, it follows that knowledge attributions do not represent the world, i.e. they are not about the world. If knowledge attributions are not about worlds, then *a fortiori* true knowledge attributions are not about the actual world, which in turn entails that there are no true knowledge attributions about the actual world. And this is just what the sceptic claims. As Michael Williams would put it, the idea that the semantic value of a sentence like ‘Larry knows that he has hands’ is true but non-representational is

‘An exercise in damage control. The sceptic has hopelessly compromised our pre-theoretical thinking about knowledge. All that remains is to keep the necessary “fundamental changes” to a minimum: to let the domain of factual knowledge shrink far enough to deny the sceptic his conclusion, but no further. However, shrink it must. Again, to admit this is to make a very large concession to scepticism.’ (Williams 1996, p. 21)\textsuperscript{120}

\textsuperscript{120} Williams targets responses to scepticism which build in certain assumptions about knowledge attributions (and other fact-stating discourse) in order to deny the sceptic the force of her conclusions.
In light of this, I conclude that assessor relativism is not really consistent with *Anti-Scepticism*; assessor relativism entails the truth of the sceptical conclusion that there can be no true knowledge attributions about the world.\textsuperscript{121}

In order to escape this conclusion, assessor relativists might try to argue that NPEs are representational after all. Iris Einheuser (2008, pp. 201-202) considers three candidates for the sort of things NPEs might represent.\textsuperscript{122} According to the first option they represent whatever state of affairs is selected by a given context of assessment. However, this is essentially equivalent to the Non-Representationality Conjecture; it implies that NPEs do not represent anything at all independently of a context of assessment (Einheuser 2008, p. 201). According to the second option NPEs represent states of affairs from different contexts of assessment. For instance, Einheuser (2008, pp. 201-202) suggests that just as a picture of a slab of wood drawn from different angles represents the same object from different perspectives, so a NPE represents the same state of affairs from different contexts of assessment.

\textsuperscript{121} Similar arguments have been made against attributor contextualism, i.e. critics have argued that the idea that the sentence ‘Larry knows that he has hands’ can be true with respect to some semantic contexts and false with respect to others concedes too much to the sceptic (see e.g. Klein 2000, p. 110; Kornblith 2000, p. 27; Sosa 2000, p. 2; Williams 2004, pp. 319-20). As noted in §2.2.2, fn. 54, it might turn out that attributor contextualism is inconsistent with *Anti-Scepticism*. And if this is right, one might think assessor relativists could attempt to spread the burden of the argument to attributor contextualism. However, there is at least one major difference between attributor contextualism and assessor relativism which is relevant here. As we saw in §2.1 and in the last section, attributor contextualists believe that the sentence ‘Larry knows that he has hands’ expresses the propositions that Larry knows-LOW that he has hands, that Larry knows-HIGH that he has hands, and so on, in different semantic contexts. Propositions are representational; for example, the proposition that Larry knows-LOW that he has hands represents the fact that Larry stands in a knowledge-LOW relation to the proposition that he has hands. So attributor contextualism does not imply the Non-Representationality Conjecture. As a result, it is not clear whether assessor relativists can really spread the burden of the argument here.

\textsuperscript{122} Einheuser (2012, p. 593) is explicitly neutral as to which predicates are assessment-sensitive. My suggestion is that assessor relativists might apply her account to the discussion of knowledge attributions.
However, it is unclear whether this idea can be made precise, nor whether it constitutes a genuine departure from the Non-Representationality Conjecture (cf. Wright 2008, pp. 168-70; Einheuser 2008, p. 202). Einheuser’s third and preferred option is what we will call the Unorthodox Representationality Hypothesis. In order to make sense of it, we will need to introduce a new theoretical construct, what Einheuser (2008, p. 190) calls a perspectival world (cf. Wright 2008, pp. 172-73). A perspectival world is understood as a combination of a possible world in the familiar sense together with a context of assessment (Einheuser 2008, p. 190). For instance, there is a perspectival world where Larry knows that he has hands; it consists of a possible world in the familiar sense where Larry stands in a certain epistemic position in relation to the proposition that he has hands together with a positive evaluation (i.e. an evaluation which yields the truth-value True) of Larry’s epistemic position with respect to a context of assessment.

The introduction of perspectival worlds allows assessor relativists to concede that NPEs do not represent possible worlds in the traditional sense, but nonetheless to avoid the Non-Representationality Conjecture by holding that they represent perspectival worlds. Specifically, just as propositions can be modelled as sets of possible worlds in traditional possible worlds semantics, so both propositions and NPEs can be modelled as sets of perspectival worlds in a perspectival worlds semantics. Letting ‘w’ range over possible worlds in the familiar sense and ‘j’ range over contexts of assessment, we define perspectival worlds as pairs <w, j>. We can vary perspectival worlds by holding fixed the value of j and varying the value of w, or by holding fixed the value of w and varying the value of j. In other words, we can individuate perspectival worlds in terms of worlds or in terms of contexts of assessment. NPEs are modelled as sets of perspectival worlds which are individuated by the values of both w and j. Propositions are modelled as sets of perspectival worlds which are individuated by the values of w only. Finally, just as in traditional possible worlds semantics a true proposition is said to represent the actual world by locating it in the space of possible worlds, so in our perspectival worlds semantics a proposition or a NPE can be said to represent the actual perspectival world by locating it in the space of possible worlds and perspectives, i.e. in the space of perspectival worlds (Einheuser 2012, p. 597). For example, suppose
the sentence ‘Larry knows that he has hands’ is true just at these perspectival worlds: <w_1, j_1>, <w_1, j_2> and <w_2, j_1>. Then ‘Larry knows that he has hands’ expresses the NPE modelled by the set \{<w_1, j_1>, <w_1, j_2>, <w_2, j_1>\}. Now suppose the sentence ‘Larry has hands’ is true at all the perspectival worlds which are formed by combining the worlds w_1 and w_2 with every context of assessment j_1, j_2 \ldots j_n. Then ‘Larry has hands’ expresses the proposition modelled by the set \{<w_1, \{j_1, j_2 \ldots j_n\}>, <w_2, \{j_1, j_2 \ldots j_n\}>\} (cf. Einheuser 2012, pp. 595-96).123 If ‘Larry knows that he has hands’ is true, it locates the actual perspectival world amongst the following perspectival worlds: <w_1, j_1>, <w_1, j_2> and <w_2, j_1>. If ‘Larry has hands’ is true, it locates the actual perspectival world amongst at least these perspectival worlds <w_1, j_1>, <w_1, j_2>, <w_2, j_1> and <w_2, j_2>.124

Although the Unorthodox Representationality Hypothesis provides a way to save the idea that NPEs are representational, it faces at least two problems. Firstly, it is inconsistent with assessor relativist semantics (Einheuser 2008, p. 200; Wright 2008, pp. 172-73). As we saw, the defining feature of assessor relativism is the enrichment of circumstances of evaluation with contexts of assessment (cf. §5.1, fn. 102). However, the Unorthodox Representationality Hypothesis tells us to combine contexts of assessment and worlds into the single notion of perspectival worlds. As such, our circumstances need only consist of perspectival worlds, not worlds and contexts of assessment.125 Secondly, and more importantly for our purposes, it is doubtful that the Unorthodox Representationality Hypothesis secures a genuine advantage over the Non-Representationality Conjecture as a response to scepticism. Specifically, just as we argued that it is a concession to the sceptic to say that the semantic values of knowledge attributions are non-representational, so we may argue that it is a concession to the sceptic to say that they represent perspectival worlds. To

123 It is important to emphasise that while a pair like <w_1, j_1> denotes a single perspectival world, a pair like <w_1, \{j_1, j_2 \ldots j_n\}> does not. Instead, <w_1, \{j_1, j_2 \ldots j_n\}> denotes every perspectival world which is the result of combining the world w_1 with any context of assessment j_n.

124 For a precursor to perspectival worlds semantics, see the literature on attitudes de se, especially Lewis (1979a). For recent discussion, see Egan (2007) and Cappelen and Hawthorne (2009, pp. 50-54).

125 Because of this, Einheuser (2008, p. 189) notes that one virtue of her approach is its ability to preserve a more traditional semantic framework than the assessor relativist framework.
accept that knowledge attributions represent perspectival worlds is to surrender the idea that they represent worlds, and therefore to surrender the idea that there are any true knowledge attributions about the world. In sum then, whether assessor relativists opt to accept the Non-Representationality Conjecture or the Unorthodox Representationality Hypothesis, their view is inconsistent with Anti-Scepticism.

5.4. Conclusion: the assessor relativist scorecard

We are now in a position to review the scorecard for assessor relativism (Table 5):

### Table 5: assessor relativist scorecard

<table>
<thead>
<tr>
<th>View</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessor Relativism</td>
<td>Yes: Bank Cases A to J</td>
</tr>
</tbody>
</table>

In §5.2.1 we saw that assessor relativists can grant the status of semantic intuitions to felicity intuitions in Bank Case A to J. In §5.2.2 we saw that they appear to be able to co-opt the attributor contextualist account of Closure and Anti-Scepticism, which provides some theoretical motivations for their view. However, in §5.3.3 we also saw the appearance that assessor relativism is consistent with Anti-Scepticism is mistaken, so we cross Anti-Scepticism out as a theoretical motivation and list it as a theoretical cost. In §5.3.1 we saw that assessor relativists are also
committed to the claim that ordinary speakers are semantically blind and in semantic error in Bank Case K, which they do not explain. Finally, in §5.3.2 we saw that assessor relativism is in conflict with Relation. Following FATSO, we can presume that assessor relativism is false and move on to the next view.

5.5. Postscript: attributor relativism

Before we move on to our exposition and defence of moderate invariantism, we ought to note that attributor relativism inherits many, if not all, of the problems of assessor relativism. This is easy to see once we set out the attributor relativist semantics for ‘know’, which is identical with assessor relativist semantics for ‘know’ (cf. §5.1) in all but two respects (see e.g. Kölbel 2008, pp. 16-20; MacFarlane 2009; 2014, pp. 190-92).\(^{126}\) Firstly, circumstances of evaluation consist not of the world of semantic contexts \(w_c\) and contexts of assessment \(\jappa\), but worlds \(w_c\) and the epistemic standards parameter \(e\). Secondly, the value of \(e\) is determined not in accordance with the Assessor Principle, but in accordance with the Relativist Attributor Principle:

\[
\text{Relativist Attributor Principle: The epistemic standard in a given circumstance of evaluation is determined by the attributor’s practical interests and by the error possibilities salient to the attributor.}
\]

We use the subscript ‘rap’ to indicate that the value of \(e\) is determined in accordance with the Relativist Attributor Principle. As a result, instead of Relativist Definition we get Attributor Relativist Definition:

\[
\text{Attributor Relativist Definition: } \Lbrack r S \text{ knows that } \Phi \rbrack_w <i_\alpha, t_\alpha, l_\alpha, w_\alpha> = \text{ True if and only if at a semantic context } <i_\alpha, t_\alpha, l_\alpha, w_\alpha>, \text{ an epistemic standard } e\text{rap and the world of the semantic context } w\text{ S confidently believes the proposition expressed by } \Phi, \text{ the proposition expressed by } \Phi \text{ is true and S’s epistemic}
\]

\(^{126}\) Although see §5.1, fn. 102.
position with respect to the proposition expressed by Φ meets the epistemic standard $e_{\text{rap}}$.\textsuperscript{127}

We should now be able to see that, given that the extensions of knowledge attributions are relativized with respect to both worlds and epistemic standards, it follows that attributor relativism is inconsistent with Relation and Anti-Scepticism. There will always be more world-epistemic standard pairs at which a sentence like ‘Alice sees that she is down a rabbit hole’ is true than world-epistemic standard pairs at which the knowledge attribution ‘Alice knows that she is down a rabbit hole’ is true, so sentence (2) comes out false by analogy with our argument in §5.3.2. Moreover, since the sentence ‘Larry knows that he has hands’ is not true at a world, its semantic value does not represent a world. Therefore, by analogy with our reasoning in §5.3.3, either the Non-Representationality Conjecture or the Unorthodox Representationality Hypothesis applies to attributor relativism. Likewise, the consequences of the Conjecture and the Hypothesis with respect to Anti-Scepticism apply to attributor relativism. I conclude that, at least for our purposes, attributor relativism does not offer any significant advantages over assessor relativism.

\textsuperscript{127} The main difference between attributor and assessor relativism then is the degree of flexibility in determining the value of the relevant parameter of the circumstance of evaluation. According to attributor relativism, the value of this parameter is always determined with respect to the attributor. According to assessor relativism, the value of this parameter is always determined with respect to the assessor, who may be the attributor, but could also be the subject of the knowledge attribution or a third party.
Chapter 6

Moderate Invariantism

6.1. Moderate invariantist semantics

Moderate invariantism, and insensitive invariantism more generally, is the orthodox approach to the semantics of knowledge attributions.\textsuperscript{128} Despite the popularity and influence of the variantist approaches discussed in the previous chapters, it remains one of the most popular views of the semantics of knowledge attributions (see e.g. Bach 2005b; Black 2005; Brown 2006; Reed 2010; Rysiew 2001; 2007). In this chapter I will argue that it is also the correct view, or at least that it describes the semantics of knowledge attributions better than its main variantist rivals.

In this section I will give a brief outline of moderate invariantist semantics based on KS-System from §1.4.1. In the next two sections I will explain the linguistic and theoretical motivations for moderate invariantism. In the last few sections I will outline some arguments against moderate invariantism based on linguistic and theoretical considerations from our list in §1.2, and show that these arguments are quite easily overcome. In §6.5 I will compare the moderate invariantist scorecard against the variantist scorecards we were left with at the end of the last few chapters. We will see that, following FATSO, out of all the options

\textsuperscript{128} Sometimes, to contrast it with moderate sensitive invariantism (Hawthorne 2004, p. 157), moderate invariantism is called simple moderate invariantism (Hawthorne 2004, p. 144). Since we are calling moderate sensitive invariantism SSI (cf. §4.1), there should be no danger of confusing simple moderate invariantism and moderate sensitive invariantism.
discussed here moderate invariantism is the best candidate for the correct description of the semantics of knowledge attributions.

Moderate invariantist semantics is very similar to SSI semantics, which we set out in some detail in §4.1. Specifically, just like SSI proponents, moderate invariantists adopt Invariantist Definition. Where \( i_\alpha, t_\alpha, l_\alpha \) and \( w_\alpha \) are the attributor, the attributor’s time, location and world respectively:

\[
\text{Invariantist Definition: } \llbracket \Gamma S \text{ knows that } \Phi \rrbracket_{w_c}^{i_\alpha, t_\alpha, l_\alpha, w_\alpha} = \text{True if and only if at a semantic context } <i_\alpha, t_\alpha, l_\alpha, w_\alpha> \text{ and the world of the semantic context } w_c \text{ S confidently believes the proposition expressed by } \Phi, \text{ the proposition expressed by } \Phi \text{ is true and S’s epistemic position with respect to the proposition expressed by } \Phi \text{ meets a moderately high epistemic standard.}
\]

Moreover, like SSI proponents, most moderate invariantists believe that \( \Gamma S \) knows that \( \Phi \) is true only if S’s epistemic position with respect to the proposition expressed by \( \Phi \) meets a very moderately high epistemic standard, in the sense of §4.1 (see e.g. Bach 2005b; Black 2005; Brown 2006; Reed 2010; Rysiew 2001; 2007). Unlike SSI proponents, moderate invariantists reject Impurism and the Subject Principle. They believe that the strength of a subject’s epistemic position is affected by truth-conducive factors only, like having justification for believing the object proposition, having a sensitive belief in the object proposition, or whatever else (cf. §1.1; §1.3.2). For example, if we favour a justification-based epistemology, then according to moderate invariantism the truth of a knowledge attribution that \( p \) to S depends on whether S justification for confidently believing \( p \) meets or exceeds a fixed standard of justification (see e.g. Rysiew 2007, pp. 629-34). Similarly, if we favour a sensitivity-based epistemology, then according to moderate invariantism the truth of a knowledge attribution that \( p \) to a subject S depends on whether S’s confident belief that \( p \) meets or exceeds a fixed degree of sensitivity (see e.g. Brown 2006, pp. 424-28).\(^{129}\)

\(^{129}\) ‘According to the suggested invariantist view, there is a context-invariant range of possible worlds across which the subject’s belief must match the facts in order to constitute knowledge, although in
The refusal to endorse Impurism and the Subject Principle set moderate invariantism apart from SSI, and Invariantist Definition sets it apart from the other variantist positions discussed here. That is, according to moderate invariantism a knowledge attribution \( \forall S \text{ knows that } \Phi \) does not express different semantic values in different semantic contexts (cf. §2.1; §3.1), nor can it have different extensions with respect to different contexts of assessment or epistemic standards (cf. §5.1; §5.5). According to moderate invariantism a knowledge attribution \( \forall S \text{ knows that } \Phi \) expresses a single semantic value in all semantic contexts and its extension varies only with respect to possible worlds.

6.2. Motivations for moderate invariantism

6.2.1. Linguistic motivations: Bank Cases A, C, E and J

In previous chapters we saw that Larry’s utterance ‘I know that the bank will be open’ in Bank Case A, Jeff’s utterance ‘Larry knows that the bank will be open’ in Bank Case C, his utterance ‘I asked Larry and he said that he knows that the bank will be open tomorrow’ in Bank Case E and Larry’s utterance ‘I was wrong; I don’t know that the bank will be open’ in Bank Case J are all felicitous.

Given that Larry was at the bank last Saturday in Bank Cases A and C, we have been assuming that he is in a moderately good epistemic position with respect to the proposition that the bank will be open. A moderately good epistemic position is strong enough to meet a moderately high epistemic standard. Moreover, in Bank Cases A and C it is true that the bank will be open and Larry confidently believes that it will. Therefore, given that moderate invariantism sets a moderately high epistemic standard for knowledge, according to moderate invariantism in Bank Cases A and C Larry knows that the bank will be open. Accordingly, the knowledge

some contexts, via Grice’s rule of relevance, an attribution of knowledge may pragmatically convey that the subject’s belief matches the facts across a wider range of possible worlds’ (Brown 2006, pp. 424-25). I discuss this kind of view in more detail in §6.4.1.
attributions ‘I know that the bank will be open’ and ‘Larry knows that the bank will be open’ come out true. In other words, like its variantist rivals, moderate invariantism can grant the status of semantic intuitions to felicity intuitions in these cases.

We saw (cf. §6.1) that according to moderate invariantism a knowledge attribution does not express different propositions in different semantic contexts, so there is no danger that embedded and unembedded occurrences of knowledge attributions will express different propositions. That is, there is no danger that \( r \ S \) knows that \( \Phi \wedge \) will express different semantic values in the non-embedding construction \( r \ S \) knows that \( \Phi \wedge \) and the embedding construction \( r \ S \) said that \( S \) knows that \( \Phi \wedge \). Consequently, moderate invariantism can also grant the status of semantic intuitions to felicity intuitions in Bank Case E.

Finally, given that in Bank Case J Larry has not been to the bank in months and has not checked the bank’s opening hours, we have been assuming that he is in a poor epistemic position with respect to the proposition that the bank will be open. A poor epistemic position is not sufficient to meet a moderately high epistemic standard, so according to moderate invariantism in Bank Case J Larry does not know that the bank will be open. Therefore, the sentence ‘I was wrong; I don’t know that the bank will be open’ comes out true. That is, moderate invariantism can grant the status of semantic intuitions to felicity intuitions in Bank Case J.

### 6.2.2. Theoretical motivations: from Anti-Gettier to Role

In §1.2 (cf. Appendix II) we listed nine theoretical considerations associated with knowledge: Anti-Gettier, Anti-Scepticism, Attitude, Closure, Factivity, Fallibilism, Relation, Robust and Role. We saw that none are entirely uncontroversial, and some are more controversial than others; nonetheless, they are all largely agreed on in the debate about the semantics of knowledge attributions and in epistemology more generally.

Now, in previous chapters we have tended to focus on a small selection of theoretical considerations. There are roughly three reasons for this: spatial
constraints, exegetical concerns and the methodology dictated by FATSO. That is, in the interests of space and faithful exegesis, the theoretical motivations we have tended to focus on are the ones emphasised by proponents of the views in question. For example, attributor contextualists emphasise that their account is consistent with Closure and Anti-Scepticism (cf. §2.2.2). And following FATSO, in order to establish that there is a presumption against a particular view, we only need to demonstrate that it conflicts with one theoretical consideration. Therefore, in previous chapters it was sufficient to show that the view in question conflicted with at least one theoretical consideration. However, the same strategy will not work here. In §1.2 I promised to show that moderate invariantism is not in conflict with any theoretical considerations, so we will need to consider all nine theoretical considerations.

In virtue of Invariantist Definition, moderate invariantism is consistent with Attitude and Factivity. That is, Invariantist Definition builds in S’s confident belief in the proposition expressed by Φ and the truth of the proposition expressed by Φ as necessary conditions for the truth of a knowledge attribution \( \gamma S \) knows that \( \Phi \). Moreover, there is scope to easily incorporate Anti-Gettier and Relation. We have seen that the notions of epistemic standards and epistemic positions are neutral with respect to a particular theory of knowledge (cf. §1.1; §1.3.2), so in principle we can pair Invariantist Definition with a theory of knowledge which can take account of all or most Gettier situations (see e.g. Lycan 2006). We have also seen that the only variantist positions which are in conflict with Relation are assessor and attributor relativism, and that the conflict arises in part as a consequence of enriching circumstances of evaluation with parameters besides worlds and relativizing the truth of \( \gamma S \) knows that \( \Phi \). Since moderate invariantists believe that the truth of \( \gamma S \) knows that \( \Phi \) varies only with worlds, they can avoid this conflict. Moderate invariantists set the epistemic standard for knowledge moderately high, so it follows that their view is consistent with Fallibilism. In §3.3.2 and §3.3.3 we saw that Role should not be accounted for in terms of the semantics of knowledge attributions, but can be accounted for in terms of Stalnaker’s model of assertion and Gricean implicature. This account should be consistent with any view of the semantics of knowledge attributions. Therefore, we can expect moderate
invariantism to be consistent with Role. These observations leave us with Closure and Anti-Scepticism. As we will see in §6.3.2, there are long-standing concerns that moderate invariantism may be inconsistent with these two theoretical considerations. However, at this stage let me simply note that there are good reasons to think that moderate invariantism is consistent with both these considerations; I will discuss these reasons in §6.4.3.

6.3. Against moderate invariantism


In previous chapters we saw that the utterances of the knowledge denial ‘[Larry doesn’t know] that the bank will be open’ in Bank Cases B, D, H and I are felicitous, and the utterances of the knowledge attribution ‘[Larry knows] that the bank will be open’ in Bank Cases G and K are infelicitous. Since moderate invariantism sets a moderately high epistemic standard for knowledge, it follows that the knowledge attribution ‘[Larry knows] that the bank will be open’ is true in any Bank Case in which Larry is in a moderately good epistemic position. Conversely, the knowledge denial ‘[Larry doesn’t know] that the bank will be open’ is false in any such case. We have been assuming that if Larry was at the bank a week ago, then he is in a moderately good epistemic position with respect to the proposition that the bank will be open on Saturday. By stipulation, Larry was at the bank a week ago in Bank Cases B, D, G, H, I and K. Therefore, according to moderate invariantism Larry knows that the bank will be open on Saturday in these Bank Cases; so the knowledge denial ‘[Larry doesn’t know] that the bank will be open’ in Bank Cases B, D, H and I is false and the knowledge attribution in Bank Cases G and K are true. It follows that moderate invariantists are committed to the claim that ordinary speakers are in semantic error in Bank Cases B, D, G, H, I and K.
6.3.2. Theoretical problems: Closure and Anti-Scepticism

We have already mentioned (cf. §6.2.2) that there are long-standing concerns that moderate invariantism is inconsistent with Closure and Anti-Scepticism (see e.g. DeRose 1995, pp. 41-42; Hawthorne 2004, pp. 144-46; MacFarlane 2014, pp. 176-77). Let us consider these in more detail.

Closure: Knowledge is closed under known entailment (i.e. if a subject S knows that p and S knows that p entails q, then S knows that q), or complies with some plausible modification of this idea.

Firstly, note that Closure idealises away from at least two distinct principles: single-premise and multi-premise closure under known entailment (Hawthorne 2004, pp. 33-34). To see the difference between these principles, compare the schema for an argument involving single-premise closure under known entailment (SPC) with the schema for an argument involving multi-premise closure under known entailment (MPC):

*Schema for argument based on SPC:*

P1. S knows that \( \Phi \).
P2. S knows that \( \Phi \) entails \( \Psi \).
P3. If S knows that \( \Phi \) and S knows that \( \Phi \) entails \( \Psi \), then S knows that \( \Psi \).
C. S knows that \( \Psi \) (by P1 to P3).

*Schema for argument based on MPC:*

P1. S knows that \( \Phi \).
P2. S knows that \( \Psi \).
L1. S knows that \( \Phi \) and \( \Psi \) (by P1 and P2).
P3. S knows that \( \Phi \) and \( \Psi \) entails \( \chi \).
P4. If S knows that \( \Phi \) and \( \Psi \) and S knows that \( \Phi \) and \( \Psi \) entails \( \chi \), then S knows that \( \chi \).

C. S knows that \( \chi \) (by L1, P3 and P4).

Moderate invariantism is consistent with SPC (see e.g. Hawthorne 2004, p. 149). For example, suppose that Gladys stole six cakes and that if Gladys stole six cakes then there is no cake (i.e. there were only six cakes in total). Moreover, suppose that Larry confidently believes and is in a moderately good epistemic position with respect to the propositions that Gladys stole six cakes and that if Gladys stole six cakes then there is no cake. Then according to moderate invariantism Larry knows that Gladys stole six cakes and knows that if Gladys stole six cakes there is no cake. I take it that it is intuitive that Larry knows that there is no cake:

**Thieving Gladys**

P1. Larry knows that Gladys stole six cakes.

P2. Larry knows that if Gladys stole six cakes then there is no cake.

P3. If Larry knows that Gladys stole six cakes and Larry knows that if Gladys stole six cakes then there is no cake, then Larry knows that there is no cake.

C. Larry knows that there is no cake (by P1 to P3).

John Hawthorne (2004, p. 144-46) points out that moderate invariantism appears to be inconsistent with MPC. For example, suppose that Larry is about to play a lottery with one thousand tickets, one of which will be drawn at random, and that ticket T1000 will win. Moreover, suppose that Larry has a true confident belief that the lottery consists of 1000 tickets, one of which will be drawn at random. For each ticket Tn, where \( 1 \leq n \leq 999 \), Larry has a true confident belief that ticket Tn will lose. Imagine Larry is in a moderately good epistemic position with respect to the proposition that the lottery consists of 1000 tickets, one of which will be drawn at random, and the propositions that ticket T1 will lose, that ticket T2 will lose, and so on. On this basis, Larry first infers the conjunction that tickets T1 to T999 will lose
and the lottery consists of 1000 tickets, one of which will be drawn at random. He
then realises that if tickets T1 to T999 will lose and the lottery consists of 1000
tickets, one of which will be drawn at random, then ticket T1000 will win. Then it
follows by MPC that Larry knows that ticket T1000 will win. However, unlike the
conclusion to Thieving Gladys, that Larry knows that T1000 will win looks highly
counter-intuitive:

*Fair Lottery*

P1 … P999. Larry knows that ticket Tn, where 1 ≤ n ≤ 999, will lose.
P1000. Larry knows that the lottery consists of 1000 tickets, one of which
will be drawn at random.
L1. Larry knows that ticket T1 … T999 will lose and that the lottery consists
of 1000 tickets, one of which will be drawn at random (by P1 to P1000).
P1001. Larry knows that if ticket T1 … T999 will lose and the lottery
consists of 1000 tickets, one of which will be drawn at random, then ticket
T1000 will win.
P1002. If Larry knows that if ticket T1 … T999 will lose and the lottery
consists of 1000 tickets, one of which will be drawn at random, and Larry
knows that if ticket T1 … T999 will lose and the lottery consists of 1000
tickets, one of which will be drawn at random, then ticket T1000 will win,
then Larry knows that ticket T1000 will win.
C. Larry knows that ticket T1000 will win (by L1, P1001 and P1002).

Moderate invariantists cannot deny premises P1 to P999; Larry knows that
the odds of each ticket Tn losing are 0.999, so if he is a moderately good epistemic
position with respect to anything, he must be in a moderately good epistemic position
with respect to the propositions that ticket T1 will lose, that ticket T2 will lose, and
so on. If we suppose that Larry saw the tickets being printed, then moderate
invariantists cannot deny P1000 without denying *Relation*. And they cannot deny L1
or P1001 without denying that Larry is capable of making fairly simple inferences,
like inferences based on conjunction introduction. So they have to deny P1002, which is an instance of Closure.

For the sake of illustration, we can compare this outcome with a variantist analysis of Fair Lottery. For example, according to attributor contextualism Fair Lottery is sound with respect to some semantic contexts and not with respect to others. Specifically, attributor contextualists can say that P1, and therefore C, is false with respect to a semantic context which sets a very high epistemic standard. So they can say that C is highly counter-intuitive because, at least with respect to some semantic contexts, C is false. In sum, it looks like moderate invariantism is consistent with SPC but not MPC. If this is right, given that both SPC and MPC are instances of Closure, it follows that moderate invariantism is at best in tension with Closure, and at worst inconsistent with Closure.

Now consider the problem which arises for moderate invariantism in relation to Anti-Scepticism.

Anti-Scepticism: The conclusions of sceptical arguments, such as that I do not know that I have hands, are false but can be compelling.

The issue is that, although moderate invariantists can say that the conclusions of sceptical arguments are false, it seems they cannot explain why these arguments are compelling. Take the following instance of the Argument from Ignorance (AI), which we encountered in §2.2.2:

Argument from Ignorance

P1. Larry does not know that he is not a BIV (brain-in-a-vat).
P2. Larry knows that if he has hands then he is not a BIV.
P3. If Larry does not know that he is not a BIV and Larry knows that if he has hands then he is not a BIV, then Larry does not know that he has hands.
C. Larry does not know that he has hands.
Suppose that Larry has hands, confidently believes that he has hands and is in a moderately good epistemic position with respect to the proposition that he has hands. Then according to moderate invariantism Larry knows that he has hands, so C is false. However, as we saw in §1.3.3, sceptics pick the BIV and other hypotheses because these hypotheses seem to provide the basis for a compelling argument to the conclusion that Larry does not know that he has hands. And even though moderate invariantists are able to say that the conclusion that Larry does not know that he has hands is false, they seem unable to explain why the sceptical argument is compelling.

6.4. In defence of moderate invariantism

6.4.1. A response to linguistic problems part I: WAM-based accounts

I think it is plausible that moderate invariantists are not committed to the claim that ordinary speakers are semantically blind. In previous chapters we saw that, with the possible exception of SSI (cf. §4.3.1), it is implausible to claim that ordinary speakers are aware that knowledge attributions have something like a variantist semantics. In particular, we followed Stephen Schiffer (1996, pp. 326-27) in supposing that no ordinary person who utters “I know that Φ”, however articulate, would dream of saying that the truth of what she meant can vary from person to person. Conversely, I think it is plausible that ordinary speakers would say that the truth of what they meant does not vary from person to person, which is just what moderate invariantism entails. In any case, we have repeatedly emphasised that the real issue is whether or not a theory of the semantics of knowledge attributions is committed to a claim that ordinary speakers are in semantic error; and we saw in §6.3.1 that moderate invariantists are committed to semantic error in Bank Cases B, D, G, H, I and K.

Now, the first thing to note is that following FATSO moderate invariantists are not obliged to explain why ordinary speakers are in semantic error.
Felicity-Alert Theory-Safe Option (FATSO): A semantic theory T must grant the status of semantic intuition to at least one felicity intuition, and should grant the status of semantic intuitions to as many felicity intuitions as possible. However, if T conflicts with some relevant theoretical consideration, there is a presumption that T is false.

Moderate invariantism grants the status of semantic intuition to at least one felicity intuition, and to a few more in Bank Case A, C, E and J (cf. §6.3.1), so it meets the condition imposed by the first clause of FATSO. In §1.2 and §6.3.2 I promised that I will be providing arguments to support the claim that moderate invariantism is consistent with all of the theoretical considerations we listed in §1.2 (cf. Appendix II). If these arguments are successful, then moderate invariantism also meets the condition imposed by the second clause of FATSO. Moreover, in the previous chapters we have seen that none of the major rivals to moderate invariantism can successfully explain why speakers are in semantic error in certain Bank Cases. In light of this, the dialectic puts no requirement on moderate invariantists to explain why speakers are in semantic error. Nonetheless, we have also noted that any cost of committing to the claim that speakers are in semantic error can be mitigated if the error can be explained (cf. §1.2). Therefore, we can bolster our defence of moderate invariantism if we can explain why ordinary speakers are in semantic error in Bank Cases B, D, G, H, I and K.

Some of the most popular moderate invariantist explanations of why ordinary speakers are in semantic error in scenarios like Bank Cases B, D, G, H, I and K appeal to Gricean pragmatics (cf. §1.4.2). On account of the fact that Gricean pragmatics sets out rules for appropriate utterance, these explanations are usually referred to as warranted assertibility manoeuvres, or WAM-based accounts (see e.g. Black 2005; Brown 2006; Rysiew 2001; 2007). Unfortunately, WAM-based accounts are subject to substantial worries, some of which we will examine in this section. Therefore, in the next section I will be defending an alternative explanation, based on Projected Adaptivism from §4.3.1.  

130 There are other approaches which I will not discuss in any detail here. For instance, Timothy Williamson (2005, pp. 229-35) offers an explanation based on his view that knowledge is non-
The basic idea behind WAM-based accounts is that felicity intuitions in Bank Cases B, D, G, H, I and K are generated in response to the proposition which is implicated by an utterance of a knowledge attribution or denial, rather than the proposition which is the semantic value of the knowledge attribution or denial. To see how this is supposed to work, first recall Bank Case B:

luminous, i.e. if one knows that p, it need not follow that one is in a position to know that one knows that p (Williamson 2000, pp. 93-113). Specifically, he argues that different practical situations require a subject to have different orders of knowledge in order for a knowledge attribution to the subject to be felicitous. In a situation where little is practically at stake a subject might need simply to know the relevant proposition. Conversely, in a situation where a lot is practically at stake the subject might need to be in a position to know that she knows the relevant proposition. If a subject’s epistemic position is kept constant across these situations, we can see why a knowledge attribution in the former case but not the latter might be felicitous. Alternatively, John Turri (2010) defends what he calls speech act contextualism. According to this view utterances of a sentence can perform different speech acts in different pragmatic contexts (cf. §1.4.2). Moreover, different speech acts have different epistemic requirements associated with them. For example, the speech act of assertion might require the speaker to know the proposition expressed by the uttered sentence. Conversely, the speech act of guaranteeing might require the speaker to know that she knows the proposition expressed by the uttered sentence. Turri (2010, pp. 88-90) suggests that in a pragmatic context where little is practically at stake an utterance of a knowledge attribution performs the speech act of assertion. Conversely, in a pragmatic context where a lot is practically at stake an utterance of a knowledge attribution performs the speech act of guaranteeing. If a subject’s epistemic position is kept constant across these contexts, we can see why a knowledge attribution in the former but not the latter context might be felicitous. I am sympathetic to both approaches, but they are not uncontroversial. For instance, Ernest Sosa (2009, pp. 214-16) argues that there is a sense of being in a position to know according to which knowledge is luminous. If he is right, and if that is the sense relevant here, then it might be difficult to see how a subject could know some proposition and yet fail to be in a position to know that she knows it. In his work on expressivism in moral discourse, Michael Blome-Tillmann (2009b, pp. 291-92) argues that there is a strong correlation between a sentence’s grammatical type and the speech act an utterance of that sentence can be used to perform. In particular, declarative sentences correlate with the speech act of assertion (Blome-Tillmann 2009, p. 293). We can apply this reasoning against Turri’s argument: prima facie, the correlation noted by Blome-Tillmann suggests that utterances of a sentence cannot perform different speech acts in different pragmatic contexts (cf. Daly and Liggins 2011, pp. 329-334).
Bank Case B

It is Friday; Larry’s bank is open tomorrow; he was at the bank last Saturday and confidently believes that the bank will be open tomorrow; he is driving past the bank with his partner Cheryl; he has a cheque with him, and it is very important that he deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. Cheryl says, ‘But banks change their hours’. Larry says, ‘I guess you are right; I don’t know that the bank will be open tomorrow’.

As we saw in §6.3.1, according to moderate invariantism Larry’s epistemic position meets a moderately high epistemic standard (cf. Black 2005, p. 331; Brown 2006, p. 420; Rysiew 2001, p. 488). However, because both Larry and Cheryl are aware that if Larry does not deposit the cheque by Monday Larry will default on a crucial repayment, and because Cheryl has mentioned the possibility that the bank may have changed its hours, we might think that in order to meet the demands of his practical and conversational situation Larry needs to be in an epistemic position which is strong enough to rule out the possibility that the bank has changed its hours (cf. Black 2005, p. 331; Brown 2006, p. 420; Rysiew 2001, p. 489). In this sort of case, even though the sentence ‘I don’t know that the bank will be open’ expresses the false proposition that Larry does not know that the bank will be open on Saturday, Larry’s utterance of this sentence implicates the true proposition that Larry cannot rule out the possibility that the bank has changed its hours. The implicated proposition generates the intuition that Larry’s utterance of the sentence ‘I don’t know that the bank will be open tomorrow’ is felicitous. What is the linguistic basis for this claim?131

131 DeRose (2009, pp. 87, 112-16) imposes three criteria on a successful WAM-based account: (i) the account must appeal to general conversational rules, e.g. Gricean maxims; (ii) it must be premised on
According to Patrick Rysiew (2001, pp. 491-92) and Jessica Brown (2006, pp. 424-25), the implicature that Larry cannot rule out the possibility that the bank has changed its hours is triggered by the operation of Grice’s (1989, p. 27) Relation maxim, viz. ‘be relevant’. The demands of Larry’s practical and conversational situation make relevant whether Larry’s epistemic position can meet a higher epistemic standard than the standard required to know that the bank will be open on Saturday. In particular, they make relevant whether Larry can rule out the possibility that the bank has changed its hours. As a result, when Larry utters the sentence ‘I don’t know that the bank will be open tomorrow’, although the sentence expresses the false proposition that Larry does not know that the bank will be open on Saturday, Larry’s utterance implicates the true proposition that Larry cannot rule out the possibility that the bank has changed its hours.132

In response to WAM-based accounts, Michael Blome-Tillmann (2013, pp. 4310-313) points out that in more general examples of implicatures ordinary speakers tend to distinguish the proposition which is the semantic value of a given sentence from the proposition which is implicated by an utterance of that sentence. In contrast, it does not seem that ordinary speakers distinguish the proposition which is the semantic value of the sentence $\neg S$ knows that $\top$ from the propositions which are supposed to be implicated by utterances of this sentence according to WAM-based accounts.

Recall Grice’s (1989, p. 32) example from §1.4.2:

---

132 DeRose (2009, pp. 122-24) argues that it is highly doubtful that the Relation maxim is at work in Bank Case B. Even if DeRose is right (cf. Blome-Tillmann 2013, pp. 4309-310), one can defend a WAM-based account which does not rely on the Relation maxim. For instance, Tim Black (2005, pp. 332-35) defends a WAM-based account which relies on the submaxim of Strength, derived from the Quantity maxim (i.e. do not make your contribution more informative than required) (Grice 1989, p. 26). Since I will not be adopting a WAM-based account, the details do not matter here.
Larry: We are out of petrol.
Cheryl: There is a garage around the corner.

If Larry already knows that there is a garage round the corner but it is closed, he could utter ‘Yes, but it’s closed’. Similarly, Cheryl could utter ‘There is a garage around the corner, although it’s closed’. I take it that Larry’s and Cheryl’s utterances would be felicitous, which indicates that ordinary speakers would recognise both Larry’s attempt to distinguish the proposition which is the semantic value of the sentence ‘There is a garage around the corner’ from the proposition which is implicated by Cheryl’s utterance of this sentence, and Cheryl’s attempt to cancel the implicature that there is an open garage around the corner. If this is true, it follows that ordinary speakers distinguish the proposition which is the semantic value of the sentence ‘There is a garage around the corner’ from the proposition which is implicated by Cheryl’s utterance of this sentence.\textsuperscript{133}

This example seems to stand in marked contrast to scenarios like Bank Case B (cf. Blome-Tillmann 2013, pp. 4311-312). For example, consider Bank Case B\* and Bank Case\† (cf. Halliday 2005, p. 381):

\begin{quote}
\textit{Bank Case B*}
\end{quote}

The same as B, except Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. Cheryl says, ‘But banks change their hours’. Larry says, ‘I know that the bank will be open’. Cheryl says, ‘Yes, you know, but you can’t rule out the possibility that the bank has changed its hours’.

\textsuperscript{133} The ‘Yes, but \(\phi\)’ diagnostic comes from Predelli (2013, p. 72); the cancellability test (i.e. ‘I know that \(\phi\), but not-\(\psi\)’) comes from Grice (1989, p. 44). Even though Predelli’s diagnostic is very similar to the cancellability test, it is moot whether Predelli would want to claim that it can be used to detect implicatures (cf. fn. 135). Nonetheless, it serves our purposes here.
The same as B, except Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. Cheryl says, ‘But banks changes their hours’. Larry says, ‘I know that the bank will be open, although I can’t rule out the possibility that the bank has changed its hours’.

If WAM-based accounts are correct, then by analogy with Grice’s example Cheryl’s utterance in Bank Case B* and Larry’s utterance in Bank Case B† should be felicitous. That is, in Bank Case B* ordinary speakers should recognise Cheryl’s attempt to distinguish the proposition which is the semantic value of the sentence ‘I know that the bank will be open’ according to moderate invariantism from the proposition which is implicated by Larry’s utterance of this sentence according to WAM-based accounts. Similarly, in Bank Case B† ordinary speakers should recognise Larry’s attempt to cancel the implicature communicated by his utterance of the sentence ‘I know that the bank will be open’. However, Cheryl’s and Larry’s utterances appear to be infelicitous, which suggests that ordinary speakers do not distinguish the proposition which is the semantic value of the sentence ‘I know that the bank will be open’ according to moderate invariantism from the proposition which is implicated by Larry’s utterance of the sentence according to WAM-based accounts. 134

134 In response to DeRose’s purported criteria for a successful WAM-based account (cf. fn. 131), Brown (2006, pp. 415-16) cites Russelian replies to Keith Donnellan’s (1966) observation that definite descriptions may be used referentially, i.e. to refer to a particular individual even though that individual does not satisfy the description. In particular, one could say that where an utterance of the sentence ‘The man drinking a martini is a philosopher’ is felicitous even though the individual in question is not drinking a martini (Donnellan 1966, p. 287), the utterance implicates that the salient man is a philosopher (Kripke 1977, pp. 261-70). Here the semantic value of the sentence ‘The man drinking a martini is a philosopher’ is the false proposition that there is a unique man drinking a martini and he is a philosopher and the implicature is the true proposition that the salient man is a
Patrick Rysiew (2001, pp. 492-98; 2007, p. 646; cf. Brown 2006, p. 428) responds to this sort of worry in two ways. Firstly, he suggests that there are instances where it is not obvious that utterances of a sentence like ‘I know that the bank will be open, although I can’t rule out the possibility that the bank has changed its hours’ are infelicitous (Rysiew 2001, p. 495). Secondly, he notes that Gricean pragmatics allows for so-called uncomfortable cancellations (Grice 1989, pp. 45-46), i.e. utterances of explicit negations of implicated content that generate the intuition that these utterances are infelicitous (Rysiew 2001, pp. 495-96). For instance, according to the Gricean (1989, p. 234) analysis, ‘but’ has the same semantic value as ‘and’. However, an utterance of the sentence $\Phi \not\land \Psi$ tends to implicate an element of surprise, whereas an utterance of the sentence $\Phi \land \Psi$ does not. For example, an utterance of ‘Suzie is rich but honest’ would usually suggest that it is surprising that Suzie is honest, whereas an utterance of ‘Suzie is rich and honest’ would not. Nonetheless, even though the element of surprise is implicated, attempts to cancel it are uncomfortable. For example, an utterance of ‘Suzie is rich but honest, although there is nothing surprising about that’ would be infelicitous. Rysiew’s claim is that something similar might be going on in a scenario like Bank Case B, i.e. Larry’s utterance of the sentence ‘I know that the bank will be open, but I can’t rule out the possibility that the bank has changed its hours’ may be infelicitous because an utterance of the sentence ‘I can’t rule out the possibility that the bank has changed its hours’ amounts to an uncomfortable cancellation.

These replies are not very convincing. The critic could counter the first by denying the intuition that there are instances where it is not obvious that utterances of the sentence ‘I know that the bank will be open, although I can’t rule out the philosopher. This implicature accounts for the felicity intuition. Whether this is the correct approach to the semantics of definite descriptions or not, notice that there seems to be a discernible difference between the proposition which is the semantic value of the sentence ‘The man drinking a martini is a philosopher’ and any propositions which might be implicated by utterances of this sentence. For instance, if I utter ‘The man drinking a martini is a philosopher’ and my interlocutor knows that the salient individual is not drinking a martini, she could respond by saying ‘Okay, but he is not drinking a martini’. My interlocutor’s response appears to be felicitous, which indicates that ordinary speakers distinguish the proposition which is the semantic value of the sentence ‘The man drinking a martini is a philosopher’ from the proposition which is implicated by my utterance of the sentence.
possibility that the bank has changed its hours’ are infelicitous. Indeed, the critic could press the worry that an utterance of ‘I know that the bank will be open, although I can’t rule out the possibility that the bank has changed its hours’ will not seem infelicitous only if one already explicitly accepts moderate invariantism (cf. Rysiew 2007, pp. 629-34), which begs the question against the critic’s rival account (like attributor contextualism, assessor relativism or whatever else).

The critic could also point out that even if Rysiew’s response can account for Bank Case B†, it is not plausible that it can account for Bank Case B*. Blome-Tillmann (2013, p. 4314) notes that uncomfortable cancellations are usually associated with the category of conventional implicatures, i.e. propositional content which is not part of the semantic value of a sentence but which is communicated by all or nearly all utterances of the sentence. For example, the element of surprise associated with ‘but’ may be regarded as a conventional implicature; it is communicated by all or nearly all utterances of sentences of the form $\neg \Phi$ but $\Psi$. Because of this, attempts to cancel the element of surprise are bound to be uncomfortable. Nonetheless, Blome-Tillmann (2013, p. 4313) argues that even in cases of conventional implicature, speakers can still distinguish the proposition which is the semantic value of a sentence from the proposition which is conventionally implicated by utterances of that sentence. For example, although an utterance of the sentence ‘Suzie is rich but honest, although there is nothing surprising about that’ would be infelicitous, it would be felicitous to respond to an utterance of the sentence ‘Suzie is rich but honest’ with ‘Yes, but there is nothing surprising about that’. That is, one can explicitly agree with the proposition which is the semantic value of ‘Suzie is rich but honest’, viz. that Suzie is rich and honest, but disagree with the implicated content. In contrast, we saw that in Bank Case B* speakers seem not to recognise Cheryl’s attempt to distinguish the proposition which is the semantic value of the sentence ‘I know that the bank will be open’ from the proposition which is implicated by Larry’s utterance of this sentence according to WAM-based accounts.\(^{135}\)

\(^{135}\) More generally, the status of conventional implicatures as pragmatically communicated content is controversial. By extension, any attempt to defend WAM-based accounts which relies on conventional implicatures as pragmatically communicated content is controversial (cf. DeRose 2009,
To sum up, WAM-based accounts rely on the idea that utterances of knowledge attributions and denials trigger certain implicatures in scenarios like Bank Case B which explain ordinary speakers’ felicity intuitions. However, unlike more general examples of implicatures, it does not seem like in these cases ordinary speakers distinguish the proposition which is the semantic value of a knowledge attribution or denial from the proposition which is supposed to be implicated by the utterance of the knowledge attribution or denial. This leaves us with one of two conclusions: either proponents of WAM-based accounts need to explain why it does not seem like ordinary speakers make this distinction in scenarios like Bank Case B, or we have good evidence that there are no implicatures of the sort envisaged by WAM-based accounts in these scenarios (cf. Blome-Tillmann 2013, pp. 4311-313). Either way, WAM-based accounts appear to offer an incomplete explanation why speakers are in semantic error in scenarios like Bank Case B.

6.4.2. A response to linguistic problems part II: Projected Adaptivism

In light of the problems which face WAM-based accounts, I would like to offer an alternative explanation why speakers are in semantic error in Bank Cases B, D, G, H, I and K, based on Projected Adaptivism from §4.3.1:

Projected Adaptivism: Whether or not a subject S in fact knows some proposition p, if an ordinary speaker is made aware of high practical interests

p. 88, fn. 11). For instance, Predelli (2013) argues that, in addition to Kaplan’s (1989) distinction between character and semantic value, i.e. those aspects of an expression’s meaning which are associated with its extension (cf. §1.4.1), there is a category of semantic meaning which is not concerned with the extension of an expression (cf. §1.2, fn. 6). Roughly speaking, it is concerned with conditions for felicitously uttering the expression. Predelli (2013, pp. 61-79) calls this bias. One could argue that conventional implicatures are really part of the bias of the relevant expressions. For instance, the bias of ‘but’ may be something like ‘⌜Φ but Ψ⌝ is felicitously uttered only if the speaker believes the conjunction of Φ and Ψ and the speaker believes that the conjunction of Φ and Ψ carries an element of surprise’ (cf. Potts 2005).
or some error possibilities with respect to p, the speaker is likely to have the intuition that S does not know that p.

Notice that in Bank Cases B, D, G, H, I and K ordinary speakers are made aware of high practical interests, whether Larry’s or Jeff’s, and several error possibilities, viz. that many banks do not open on Saturdays and that the bank may have changed its hours. According to moderate invariantism Larry knows that the bank will be open in all of these Bank Cases. However, following Projected Adaptivism, when speakers are confronted with these cases they are likely to have the intuition that Larry does not know that the bank will be open. Therefore, even though Larry knows that the bank will be open in Bank Cases B, D, G, H, I and K, ordinary speakers have the intuition that he does not, and therefore find utterances of the sentence ‘[Larry doesn’t know] that the bank will be open’ felicitous.

Now, in §4.3.1 we saw that Projected Adaptivism offers a very general account of felicity intuitions in the Bank Cases; if it applies at all, it must apply in any case where speakers are made aware of high practical interests or some error possibilities (cf. MacFarlane 2005c, pp. 213-14). The problem is that speakers are made aware of an error possibility in Bank Cases other than B, D, G, H, I and K. For example, they are made aware of the fact that many banks do not open on Saturdays in Bank Cases A and C. Therefore, according to Projected Adaptivism in these cases speakers should have the intuition that Larry does not know that the bank will be open. In fact, we have seen that in these cases utterances of the sentence ‘[Larry knows] that the bank will be open’ are felicitous, which suggests that ordinary speakers do not have the intuition that Larry does not know that the bank will be open. So it looks like Projected Adaptivism is false; it is not always the case that when an ordinary speaker is made aware of high practical interests or some error possibilities with respect to p, the speaker is likely to have the intuition that S does not know that p.\footnote{We could quibble that the caveat ‘likely’ in ‘the speaker is likely to have the intuition that S does not know that p’ leaves some room to manoeuvre in the Bank Cases. Specifically, we could try to point out that because it is not entailed that speakers will have the intuition that S does not know that p when presented with an error possibility, we are free to claim that speakers will not have the intuition}
In response to this issue, we can point out that the interpretation of the psychological evidence we are presently working with is not sufficiently fine-grained. Let us first recall the argument which supports Projected Adaptivism (cf. §4.3.1):

*Hawthorne’s Super Augmented Argument*

P1. If an ordinary speaker O is made aware of high practical interests or some error possibilities with respect to a proposition p, O is likely to overestimate the risk of being wrong about p.

P2. If O is likely to overestimate the risk of being wrong about p, O is likely not to confidently believe that p.

P3. If O is likely not to confidently believe that p, O is likely to have the intuition that a subject S does not confidently believe that p.

P4. If O is likely to have the intuition that S does not confidently believe that p, O is likely to have the intuition that S does not know that p.

C. If O is made aware of high practical interests or some error possibilities with respect to a proposition p, O is likely to have the intuition that S does not know that p.

In §4.3.1 we saw that C is derived from premises P1 to P4 by the transitivity of entailment. We also saw that Hawthorne (2004, p. 164) cites psychological evidence which supports P1, Jennifer Nagel (2010, pp. 409-20) cites evidence which supports P2, and Amy Coplan (2011, pp. 10-11) and Sara Hodges and Daniel Wegner (1997, p. 328) cite evidence which supports P3. P4 is supported by *Attitude*.

Now, although *Hawthorne’s Super Augmented Argument* was sufficient for our purposes in §4.3.1, in fact we can give a more refined treatment of premises P1 and P2 based on the evidence cited by Hawthorne and especially by Nagel. Firstly, given that speakers are likely to overestimate the risk of error when they are made aware of high practical interests and some error possibilities (Hawthorne 2004, p. 164), it is plausible that the higher the practical interests and the more error that S does not know that p when presented with an error possibility in Bank Cases A and C. However, this move is not very convincing without independent reasons to support it.
possibilities speakers are made aware of the more likely they are to overestimate the risk of error. Conversely, the lower the practical interests and the fewer error possibilities speakers are made aware of, the less likely they are to overestimate the risk of error. Secondly, recall that according to the psychological evidence cited by Nagel (2010, pp. 413-14) the higher the risk of error ordinary speakers perceive in connection with some proposition p, the less confidently they tend to believe that p. Conversely, the lower the risk of error they perceive in connection with p, the more confidently they tend to believe that p. Overall then, it is plausible that the higher the practical interests and the more error possibilities speakers are made aware of, the less confidently they tend believe the target proposition, and the lower the practical interests and the fewer error possibilities speakers are made aware of, the more confidently they tend believe the target proposition. In other words, the psychological evidence supports not only Hawthorne’s Super Augmented Argument, but what we will call the Correlative of Hawthorne’s Super Augmented Argument:

Correlative of Hawthorne’s Super Augmented Argument

P1. If an ordinary speaker O is made aware of low practical interests and few error possibilities with respect to a proposition p, O is unlikely to overestimate the risk of being wrong about p.

P2. If O is unlikely to overestimate the risk of being wrong about p, O is unlikely not to confidently believe that p.

P3. If O is unlikely not to confidently believe that p, O is unlikely to have the intuition that a subject S does not confidently believe that p.

P4. If O is unlikely to have the intuition that S does not confidently believe that p, O is unlikely to have the intuition that S does not know that p.

C. If O is made aware of high practical interests and few error possibilities with respect to a proposition p, O is unlikely to have the intuition that S does not know that p.

Together Hawthorne’s Super Augmented Argument and its Correlative support Projected Adaptivism*:
Projected Adaptivism*: Whether or not a subject S in fact knows some proposition p, if an ordinary speaker is made aware of high practical interests or some error possibilities with respect to p, the speaker is likely to have the intuition that S does not know that p. Whether or not a subject S in fact knows some proposition p, if an ordinary speaker is made aware of low practical interests and few error possibilities with respect to p, the speaker is unlikely to have the intuition that S does not know that p.

Notice that Projected Adaptivism* can account for felicity intuitions in Bank Cases B, D, G, H, I and K but not in Bank Cases A or C. As before, in Bank Cases B, D, G, H, I and K ordinary speakers are made aware of high practical interests and several error possibilities, so according to the first clause of Projected Adaptivism* in these cases ordinary speakers are likely to have the intuition that Larry does not know that the bank will be open. In contrast, in Bank Cases A and C speakers are made aware of low practical interests and just one error possibility. So according to the second clause of Projected Adaptivism* in these cases speakers are unlikely to have the intuition that Larry does not know that the bank will be open.

Of course, not having the intuition that Larry does not know that the bank will be open does not entail having the intuition that Larry knows that the bank will be open. Yet we have seen that in Bank Cases A and C speakers have the intuition that utterances of the sentence ‘[Larry knows] that the bank will be open’ are felicitous. This shows that, although Projected Adaptivism* is consistent with speaker intuitions in Bank Cases A and C, it is insufficient to explain these intuitions. For lack of an alternative explanation, I think it is very natural to suppose that in these cases speakers’ felicity intuitions amount to semantic intuitions, which is exactly the claim made by moderate invariantists (cf. §6.2.1). In sum, although Projected Adaptivism* is a fully general explanation which applies in all the Bank Cases, it is sufficient to explain felicity intuitions only in Bank Cases B, D, G, H, I and K, not in Bank Cases A or C. In these cases, it is natural to suppose that speakers’ felicity intuitions amount to semantic intuitions, in line with moderate invariantism.
Projected Adaptivism* faces a number of objections. Firstly, one might wonder why an ordinary speaker would have the intuition that Larry does not confidently believe that the bank will be open when it is stipulated as part of the background in all of the Bank Cases that he confidently believes that the bank will be open (see e.g. Brown 2005b, pp. 81-84; cf. §4.3.1, fn. 91). Although I do not have any empirical data to support this claim directly, the evidence cited by Coplan (2011, pp. 10-11), Hawthorne (2004, p. 164), Hodges and Wegner (1997, p. 328) and Nagel (2010, pp. 409-20) seems to support it indirectly. That is, following the psychological phenomena cited by Coplan, Hodges and Wegner, we can expect speakers to view the Bank Cases from Larry’s point of view but with the information available to them. Following the phenomena cited by Hawthorne and Nagel, we can then expect speakers to find it difficult to suppose in Bank Cases B, D, G, H, I and K that Larry confidently believes that the bank will be open. I imagine that if a speaker explicitly attended to the stipulation that Larry confidently believes that the bank will be open in these cases, she would reason along something like the following lines: ‘I am told that Larry confidently believes that the bank will be open. However, I wouldn’t believe this if I were Larry, so I don’t think he really confidently believes that the bank will be open’ or ‘I am told that Larry confidently believes that the bank will be open. However, I wouldn’t believe this if I were Larry, so he can’t be that confident’.

As a counter-reply, the critic might respond that my argument begs the question; we cannot simply dismiss stipulations which do not fit with our account. In response, I re-iterate that we dismiss only the effect of the stipulation that Larry confidently believes that the bank will be open. More importantly, I re-iterate that we do this on the basis of what appears to be a significant body of psychological evidence. In other words, whether or not we stipulate that Larry confidently believes that the bank will be open in Bank Cases B, D, G, H, I and K, I suggest there is good reason to think that, as a matter of psychological reality, ordinary speakers’ intuitions are not responsive to this stipulation in these cases.

This leads to a different objection, viz. that Projected Adaptivism* is hostage to psychology. In particular, if future empirical work suggests that any of the premises P1, P2 or P3 of Hawthorne’s Super Augmented Argument and the
Correlative of Hawthorne’s Super Augmented Argument is false, then we have good reason to think that Projected Adaptivism\(^*\) is false (or at least no reason to think that it is true). We have to concede this point, but we do not have to acknowledge that the concession raises any serious concerns for our view. In particular, we have seen that Coplan (2011, pp. 10-11), Hawthorne (2004, p. 164), Hodges and Wegner (1997, p. 328) and Nagel (2010, pp. 409-20) cite a substantial consensus in the psychological literature in favour of premises P1, P2 and P3. Therefore, it seems unlikely that future empirical work will undermine any of premises P1, P2 or P3. I conclude that Projected Adaptivism\(^*\) offers a good account of semantic error in Bank Cases B, D, G, H, I and K which is consistent with the moderate invariantist account of the other Bank Cases.

6.4.3. A response to theoretical problems part I: Closure

In §6.3.2 we saw that moderate invariantism appears to be inconsistent with multi-premise closure (MPC), which at best puts it in tension with Closure and at worst entails that it is inconsistent with Closure. For example, we saw that following Fair Lottery moderate invariantists are forced to accept a highly counter-intuitive conclusion or to deny MPC. However, there are good reasons to think that this verdict is too hasty. Firstly, recall that Closure admits of modification:

\textit{Closure}: Knowledge is closed under known entailment (i.e. if a subject S knows that p and S knows that p entails q, then S knows that q), or complies with some plausible modification of this idea.

In light of this, moderate invariantists may be justified in modifying Closure in line with Closure\(^*\) (see e.g. Reed 2010, p. 234; cf. Hawthorne 2004, pp. 46-50):

\textit{Closure\(^*\)}: Knowledge is closed under known entailment (i.e. if a subject S knows that p and S knows that p entails q, then S knows that q), except where p is proposition which has a high probability of being true (high-probability
proposition) and q is a proposition which has a low probably of being true (low-probability proposition).\textsuperscript{137}

Following Closure\textsuperscript{*}, arguments like Fair Lottery are unsound. Specifically, in Fair Lottery, the propositions that ticket T1 will lose, that ticket T2 will lose, and so on, are all high-probability. In contrast, the proposition that ticket T1000 will win is low-probability. Therefore, premise P1002 is false. This removes the motivation for thinking that moderate invariantists have to deny MPC outright.

Critics might respond that this modification is ad hoc, i.e. it is designed solely to avoid the claim that arguments like Fair Lottery are sound and therefore to avoid denying MPC. However, even if this charge is true for moderate invariantists, it is equally true for at least some variantists. We saw that proponents of at least two of the main variantist positions, viz. attributor contextualism and assessor relativism, have to modify Closure (cf. §6.3.2). Specifically, they have to say that Closure is true provided we hold the value of the epistemic standards parameter \(e_{\text{ap}}\) of semantic contexts, or the value of the epistemic standard of the contexts of assessment parameter \(j_{\text{asp}}\), fixed. We also saw that in practice there is nothing to prevent the value of \(e_{\text{ap}}\) from varying over the course of an utterance (cf. Stanley 2004, pp. 134-39). Similarly, in practice there seems to be nothing to prevent the value of \(j_{\text{asp}}\) from varying over the course of an utterance. Therefore, the stipulation that we hold the value of \(e_{\text{ap}}\) or \(j_{\text{asp}}\) fixed is put in place solely to preserve Closure. In light of this, I suggest that at least some variantists cannot consistently press the charge that the moderate invariantist modification of Closure is ad hoc.

Moreover, recall that that according to some variantist approaches arguments like Fair Lottery are sound with respect to some semantic contexts or contexts of assessment (cf. §6.3.2). Although clearly this conclusion is not as strong as the claim that arguments like Fair Lottery are sound with respect to all semantic contexts or contexts of assessment, nonetheless we might think that it is counter-intuitive. Specifically, we might have the intuition that Fair Lottery is never sound. In that

\textsuperscript{137} Baron Reed (2010, fn. 35; cf. Hawthorne 2004, p. 146) characterises this as a denial of Closure. The characterisation is uncharitable; we are adding a modification which is allowed by Closure, and we can still say that MPC holds between propositions with appropriately matched probability values.
case variantists will need to modify Closure in line with something like Closure* if they want to respect this intuition.

Finally, it is worth emphasising that our modification is made in response to an instance of MPC. Some variantists acknowledge that MPC is less intuitive than SPC (see e.g. Hawthorne 2004, pp. 36-46; Stanley 2005, p. 18), so there may be less resistance to our modification than might initially appear.

Alternatively, if we do not wish to modify Closure, we may be able to explain our intuitions in Fair Lottery if we distinguish the principle that knowledge is closed under known entailment from the idea that epistemic warrant transmits across known entailment, and claim that epistemic warrant does not transmit across the known entailment in Fair Lottery (see e.g. Davies 1998; cf. Wright 2000). That is, even where p entails q, a subject’s epistemic warrant for confidently believing that p may not transmit to q. Epistemic warrant is understood as a subject’s justification, evidence, or whatever else we think is necessary for knowledge besides true confident belief (cf. §1.1; §1.3.2). Thus, in Fair Lottery Larry’s warrant for believing (i) that each ticket T_n, where 1 ≤ n ≤ 999, will lose, (ii) that the lottery consists of 1000 tickets, one of which will be drawn at random, and (iii) that if ticket T_1 … T_999 will lose and the lottery consists of 1000 tickets, one of which will be drawn at random, then ticket T_1000 will win may fail to transmit to (iv) that ticket T_1000 will win. To sum up, although there is no doubt that moderate invariantists have difficult questions to answer here, there are good reasons to think that moderate invariantism is consistent with Closure.

6.4.4. A response to theoretical problems part II: Anti-Scepticism

In §6.3.2 we saw that moderate invariantism appears to be inconsistent with Anti-Scepticism:

Anti-Scepticism: The conclusions of sceptical arguments, such as that I do not know that I have hands, are false but can be compelling.
Although moderate invariantists can say that the conclusions of sceptical arguments are false, their semantics is not rich enough to explain why they are compelling. As it turns out however, something like Projected Adaptivism* (cf. §6.4.2) can provide the explanation. Recall the sceptic’s Argument from Ignorance (AI):

**Argument from Ignorance**

P1. Larry does not know that he is not a BIV (brain-in-a-vat).

P2. Larry knows that if he has hands then he is not a BIV.

P3. If Larry does not know that he is not a BIV and Larry knows that if he has hands then he is not a BIV, then Larry does not know that he has hands.

C. Larry does not know that he has hands.

In §2.2.2 we saw that premises like P1 are a kind of error possibility par excellence. That is, according to attributor contextualists they impose higher epistemic standards than any other kind of error possibility. By analogy, we might think that although typically mentioning just one error possibility is insufficient to cause a speaker to have the intuition that a given subject does not know some proposition (cf. §6.4.2), mentioning a sceptical error possibility is sufficient. As Michael Williams (1996, pp. 2-10) points out, unlike other kinds of error possibility, a sceptical error possibility immediately forces one to doubt whether there is knowledge of any propositions which entail the negation of the sceptical error possibility. In light of this, it seems natural that when a speaker is made aware of a sceptical error possibility, the speaker is likely to overestimate the risk of error in connection with some proposition and therefore, following Hawthorne’s Super Augmented Argument above, to have the intuition that a subject does not know that proposition.

Unfortunately, this explanation is too simple. In particular, note that unlike the Bank Cases, arguments like AI do not generate stable intuitions. It is often observed that we fluctuate between finding sceptical hypotheses intuitive and counter-intuitive, and therefore between finding the conclusions of sceptical
arguments intuitive and counter-intuitive (see e.g. Sosa 1999, p. 147). Moreover, arguments like AI do not say anything about the subject’s practical interests with respect to the target proposition. For instance, a sceptic who argues from the error possibility that Larry is a BIV to the conclusion that Larry does not know that he has hands does not claim that Larry has high practical interests with respect to the proposition that Larry has hands. Indeed, one of the reasons we fluctuate between finding sceptical hypotheses intuitive and counter-intuitive is precisely because we view them first in isolation from any practical interests and later disregard them when some practical interests become salient (see e.g. Williams 1996, p. 10). In contrast, Projected Adaptivism* was constructed on the basis of fairly stable felicity intuitions and the idea that both the greatness of practical interests and the number of error possibilities speakers are aware of vary. In light of this, it may look like Projected Adaptivism* cannot explain our rather nuanced intuitions in arguments like AI.

Fortunately, we can modify Projected Adaptivism* still further to give us the account we need. To begin with, note that although Hawthorne’s Super Augmented Argument and its Correlative were sufficient for our purposes in §6.4.2, we can give a still more refined treatment of premises P1 of those arguments. Firstly, note that these premises run together the effects of making speakers aware of practical interests and error possibilities:

Hawthorne’s Super Augmented Argument

P1. If an ordinary speaker O is made aware of high practical interests or some error possibilities with respect to a proposition p, O is likely to overestimate the risk of being wrong about p.

Correlative of Hawthorne’s Super Augmented Argument

P1. If an ordinary speaker O is made aware of low practical interests and few error possibilities with respect to a proposition p, O is unlikely to overestimate the risk of being wrong about p.
In fact, as Jessica Brown (2006, pp. 422-24) argues, there is a distinction between the effect of making speakers aware of greater or lesser practical interests and the effect of making them aware of more or fewer error possibilities. Specifically, Brown suggests that mentioning an error possibility need not affect the implicatures which might be triggered by a subsequent utterance of a knowledge attribution if speakers are aware of low practical interests in connection with the target proposition (cf. §6.4.1). We will speculate that a similar distinction holds with respect to premises P1 of Hawthorne’s Super Augmented Argument and its correlative, viz. if ordinary speakers are made aware of some error possibilities but low practical interests they are less likely to overestimate the risk of being wrong about the target proposition than if they are made aware of some error possibilities and high practical interests. This supports the following reformulation of Projected Adaptivism*:

**Nuanced Projected Adaptivism***: Whether or not a subject S in fact knows some proposition p, if an ordinary speaker is made aware of high practical interests or some error possibilities with respect to p, the speaker is likely to have the intuition that S does not know that p. Whether or not a subject S in fact knows some proposition p, if an ordinary speaker is made aware of low practical interests and few error possibilities with respect to p, the speaker is unlikely to have the intuition that S does not know that p. An ordinary speaker is less likely to have the intuition that S does not know that p if the speaker is made aware of low practical interests and some error possibilities than if the speaker is made aware of high practical interests and the same error possibilities.

**Nuanced Projected Adaptivism*** can explain both why the conclusions of sceptical arguments are compelling and why their appeal is unstable. As before, when speakers are made aware of a sceptical error possibility, they are likely to have the intuition that a subject does not know the target proposition. However, because speakers are not made aware of high practical interests in connection with that
proposition, they are less likely to have the intuition that a subject does not know the target proposition than in Bank Cases B, D, G, H, I and K, where they are made aware of high practical interests with respect to the target proposition. Therefore, we can expect speakers’ intuitions that the conclusion of a sceptical argument is true to be less stable than their intuitions in the Bank Cases. Like Projected Adaptivism*, Nuanced Projected Adaptivism* is compatible with moderate invariantism, so we can conclude that moderate invariantism is consistent with Anti-Scepticism.

6.5. Conclusion: the moderate invariantist scorecard

We are now in a position to review the scorecard for moderate invariantism (Table 6):

|-----------------------|--------|-------------------------|------------------------|----------------------------------|------------------------------|---------------------|----------------------------------------|

In §6.2.1 we saw that moderate invariantists can grant the status of semantic intuitions to felicity intuitions in Bank Cases A, C, E and J. In §6.2.2 we claimed that moderate invariantism is consistent with all nine theoretical considerations listed
in §1.2 (cf. Appendix II). We noted that some critics believe that moderate invariantism is inconsistent with *Closure* and *Anti-Scepticism*, so we write ‘except *Closure* and *Anti-Scepticism*’ in the third column and *Closure* and *Anti-Scepticism* in the final column. However, in §6.4.3 and §6.4.4 we concluded that the critics are mistaken. Therefore, we cross out ‘except *Closure* and *Anti-Scepticism*’ from the third and *Closure* and *Anti-Scepticism* from the final columns. In §6.4.1 we noted that it is plausible that moderate invariantists are not committed to the claim that ordinary speakers are semantically blind. However, they are committed to the claim that speakers are in semantic error in Bank Cases B, D, G, H, I and K. We rejected WAM-based accounts of these cases, so we cross these out on the scorecard. Instead, we explained the semantic error in terms of *Projected Adaptivism*. All that is left now is to compare the moderate invariantist scorecard with its variantist rivals’ scorecards.
Chapter 7

Conclusion

7.1. Comparing scorecards

Let us now review the scorecards for all the views discussed in this work (Table 7):

Table 7: the scorecards compared

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributor contextualism</td>
<td>Yes: Bank Cases A, B, C, D (and F)</td>
<td>Yes: Closure</td>
<td>Yes: Anti-Scepticism</td>
<td>Yes</td>
<td>Yes: Bank Case E</td>
<td>No</td>
<td>Yes: Robust</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject-sensitive invariant-ism</td>
<td>Yes: Action (and Assertion)</td>
<td>Unclear</td>
<td></td>
<td>Yes: Relation and Anti-Scepticism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessor relativism</td>
<td>Yes: Bank Cases A to J</td>
<td>Yes: Closure and Anti-Scepticism</td>
<td>Yes: Bank Case K</td>
<td>Yes: Relation and Anti-Scepticism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attributor relativism</td>
<td></td>
<td></td>
<td></td>
<td>Yes: Relation and Anti-Scepticism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate invariant-ism</td>
<td>Yes: all theoretical considerations except Closure and Anti-Scepticism</td>
<td>No</td>
<td>Yes: Bank Cases B, D, G, H, I and K</td>
<td>Yes: Closure and Anti-Scepticism</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Let us also recall FATSO from §1.2:

*Felicity-Alert Theory-Safe Option (FATSO):* A semantic theory T must grant the status of semantic intuition to at least one felicity intuition, and should grant the status of semantic intuitions to as many felicity intuitions as possible. However, if T conflicts with some relevant theoretical consideration, there is a presumption that T is false.
We can see by looking at the second column of Table 7 that all of the views discussed here grant semantic status to at least one felicity intuition. Therefore, all of the views discussed here comply with the first clause of FATSO. Some views grant semantic status to more felicity intuitions than others, but we saw in §1.2 that it is not clear whether this means that some theories are better candidates for the correct description of the semantics of knowledge attributions than others. For example, without engaging in corpus linguistics (and even then the results may be inconclusive), we cannot establish whether all felicity intuitions are on a par or whether some need to be accounted for before others. Moreover, by looking at the fifth column we can see that none of the views can grant semantic status to all felicity intuitions, and column six suggests that moderate invariantists are the only ones who can successfully explain why some felicity intuitions do not amount to semantic intuitions. This further complicates the comparison of the various theories against each other with respect to the number of felicity intuitions which come out as semantic intuitions. To decide between the theories, we follow the second clause of FATSO, i.e. we check whether a theory is inconsistent with any theoretical considerations. If a theory is inconsistent with a theoretical consideration, we presume that the theory is false and move on to the next theory. When we look at the seventh column, we see that each one of the variantist positions discussed here is inconsistent with at least one theoretical consideration. Therefore, following FATSO, there is a presumption that each one of the variantist positions is false. In contrast, we can see that moderate invariantism is consistent with all the theoretical considerations we listed in §1.2 (cf. Appendix II). Therefore, there is no presumption that moderate invariantism is false. Of course, this does not entail that moderate invariantism is true, but it provides us with very good reasons to believe that it is true. That is, given that the variantist approaches discussed here exhaust all the major forms of variantism, it seems plausible that moderate invariantism outperforms variantism as a whole. In light of this, I conclude that moderate

\footnote{We did not undertake a detailed examination of attributor relativism (cf. §5.5), so we put a dash through most of the columns for this view. Following FATSO, the most important question is whether attributor relativism is inconsistent with any theoretical considerations. And we saw in §5.5 that it is inconsistent with \textit{Relation} and \textit{Anti-Scepticism}.}
invariantism is the correct account of the semantics of knowledge attributions, or at least that it is a better account than its main variantist rivals.

7.2. Moving forward

One of my main aims in this work has been to show that moderate invariantism correctly describes the semantics of knowledge attributions, or at least that it does so better than its main variantist rivals. Because of my focus on variantism, I have said relatively little about scepticism and nothing about sceptical invariantism, i.e. the view that \( \text{⌜S knows that } \Phi \text{⌝} \) is true only if S’s epistemic position with respect to the proposition expressed by \( \Phi \) meets an extremely high epistemic standard (see e.g. Davis 2007; Schaffer 2004b; Unger 1975). Relatedly, this work has been structured around a number of theoretical considerations (cf. Appendix II). And while I did provide some justification for accepting these considerations (cf. §1.2), I have not begun to examine them in any kind of detail. Although these areas lie beyond the scope of this work, they will need to be addressed in future work and tied to the relevant current research (see e.g. Blome-Tillmann 2013, pp. 4298-4305; Stanley 2008) if we want to confirm the conclusion that moderate invariantism is the correct account of the semantics of knowledge attributions.

A number of other issues have arisen over the course of this work. For example, we have noted that, if corpus linguistics suggests that some Bank Cases better represent our ordinary uses of knowledge attributions than others, it may give us a way of ranking various theories against each other with respect to the number of felicity intuitions which come out as semantic intuitions (cf. §1.2). This could have a significant impact on the scorecards above. Similarly, our defence of moderate invariantism depends on a number of psychological claims. Although we have seen that there is existing and wide evidence for these claims, direct investigation could either provide additional support for or force us to rethink our conclusions. Similarly, although all participants in the knowledge attribution debate rely on speakers’ felicity
intuitions, we have seen that there is a tendency to conflate speaker intuitions about utterances of \( \Phi \) and speaker beliefs about the semantics of \( \Phi \). And we have also seen that it pays to observe the distinction. Finally, in several footnotes (e.g. §6.4.1, fn. 135) we noted an increasing tendency in philosophical and especially in linguistic literature to recognise a category of semantic meaning which is not concerned with the extension of an expression or sentence (see e.g. Potts 2005; Predelli 2013), i.e. a category of meaning which goes beyond KS-System from §1.4.1 and its various modifications. Although this trend is currently unrecognised in the debate about the semantics of knowledge attributions, it could provide the basis for a more thorough defence of the conclusion that moderate invariantism is the correct account of the semantics of knowledge attributions.
Appendix I: the (main) Bank Cases

Bank Case A

It is Friday; Larry’s bank is open tomorrow; he was at the bank last Saturday and confidently believes that the bank will be open tomorrow; he is driving past the bank with his partner Cheryl; he has a cheque with him, but it is not especially important that he deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’.

Bank Case B

The same as A, except it is very important that Larry deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. Cheryl says, ‘But banks change their hours’. Larry says, ‘I guess you are right; I don’t know that the bank will be open tomorrow’.

Bank Case C

It is Friday; Larry and Jeff’s bank is open tomorrow; Larry was at the bank last Saturday and confidently believes that the bank will be open tomorrow; Jeff is driving past the bank with his partner Suzie; he has a cheque with him, but it is not especially important that he deposits the cheque before Monday. Jeff says, ‘Let’s deposit the cheque tomorrow’. Suzie says, ‘Are you sure? Many banks are closed on Saturdays’. Jeff says, ‘No, I asked Larry and he knows that the bank will be open tomorrow’.
Bank Case D

As with C, except it is very important that Jeff deposits the cheque before Monday. Jeff says, ‘Let’s deposit the cheque tomorrow’. Suzie says, ‘Are you sure? Many banks are closed on Saturdays’. Jeff says, ‘No, I asked Larry and he knows that the bank will be open tomorrow’. Suzie says, ‘But banks change their hours’. Jeff says, ‘I guess you are right; Larry doesn’t know that the bank will be open tomorrow’.

Bank Case E

It is Friday; Larry’s bank is open tomorrow; he was at the bank last Saturday and confidently believes that the bank will be open tomorrow; he is driving past the bank with his partner Cheryl and his friend Jeff; he has a cheque with him, but it is not especially important that he deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. Later on, Jeff is talking to Suzie; he also has a cheque with him, and it is very important that he deposits it before Monday. Jeff says, ‘Let’s deposit the cheque tomorrow’. Suzie says, ‘Are you sure? Many banks are closed on Saturdays and yours might have changed its hours’. Jeff says, ‘Well, I asked Larry and he said that he knows that the bank will be open tomorrow’.

Bank Case F

It is Friday; Larry’s bank is open tomorrow; he was at the bank last Saturday and confidently believes that the bank will be open tomorrow; he is driving past the bank with his partner Cheryl and his friend Jeff; he has a cheque with him, but it is not especially important that he deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last
Saturday. The next day Cheryl is murdered inside the bank. A police officer interviews Jeff in connection with the case. The police officer says, ‘Did anyone close to Cheryl know that the bank would be open today?’. Jeff says, ‘Yes, Larry said that he knew that the bank would be open on Saturday’.

Bank Case G

It is Friday; Larry and Jeff’s bank is open tomorrow; Larry was at the bank last Saturday and confidently believes that the bank will be open tomorrow; he is driving past the bank with his partner Cheryl and his friend Jeff; he has a cheque with him, and it is very important that he deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. Cheryl says, ‘But banks change their hours’. Later that day Jeff is driving past the bank with his partner Suzie; he has a cheque with him, but it is not especially important that he deposits the cheque before Monday. Jeff says, ‘Let’s deposit the cheque tomorrow’. Suzie says, ‘Are you sure? Many banks are closed on Saturdays’. Jeff says, ‘No, I asked Larry and he knows that the bank will be open tomorrow’.

Bank Case H

It is Friday; Larry and Jeff’s bank is open tomorrow; Larry was at the bank last Saturday and confidently believes that the bank will be open tomorrow; he is driving past the bank with his partner Cheryl and his friend Jeff; he has a cheque with him, but it is not especially important that he deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. Later that day Jeff is driving past the bank with his partner Suzie; he asked Larry about the bank’s opening hours and confidently believes that
the bank will be open tomorrow; he has a cheque with him, and it is very important that he deposits the cheque before Monday. Jeff says, ‘Let’s deposit the cheque tomorrow’. Suzie says, ‘Are you sure? Many banks are closed on Saturdays’. Jeff says, ‘No, I asked Larry and he knows that the bank will be open tomorrow’. Suzie says, ‘But banks change their hours’. Jeff says, ‘I guess you are right; Larry doesn’t know that the bank will be open tomorrow’.

Bank Case I

As with H, except Jeff has also visited the bank’s website and rang the bank to check that they will be open tomorrow. Jeff says, ‘Let’s deposit the cheque tomorrow’. Suzie says, ‘Are you sure? Many banks are closed on Saturdays’. Jeff says, ‘No, I asked Larry and he knows that the bank will be open tomorrow’. Suzie says, ‘But banks change their hours’. Jeff says, ‘I guess you are right; Larry doesn’t know that the bank will be open tomorrow’.

Bank Case J

It is Friday; Larry’s bank is open tomorrow, but he has not been to the bank in months and has not checked the bank’s opening hours; he is driving past the bank with his partner Cheryl; he has a cheque with him, but it is not especially important that he deposits the cheque before Monday. Larry says, ‘I know that the bank will be open tomorrow, so let’s deposit the cheque then’. Later that day Cheryl says, ‘I was just thinking: many banks change their hours, so how do you know it will be open?’. Larry says, ‘That’s true. I was wrong; I don’t know that the bank will be open’.
It is Friday; Larry’s bank is open tomorrow; he was at the bank last Saturday and confidently believes that the bank will be open tomorrow; he is driving past the bank with his partner Cheryl; he has a cheque with him, and it is very important that he deposits the cheque before Monday. Larry says, ‘Let’s deposit the cheque tomorrow’. Cheryl says, ‘Are you sure? Many banks are closed on Saturdays’. Larry says, ‘No, I know that the bank will be open, I was there last Saturday’. Cheryl says, ‘But banks change their hours’. Larry says, ‘I guess you are right; I don’t know that the bank will be open tomorrow’. Later that day Larry has deposited his cheque and no longer has high practical interests with respect to the proposition that the bank will be open. He has forgotten most of his conversation with Cheryl, but he remembers conceding that he does not know that the bank will be open tomorrow. He now says, ‘I was wrong; I do know that the bank will be open tomorrow’.
Appendix II: the theoretical considerations

Anti-Gettier: If a subject S knows that p then S is not in a Gettier situation with respect to p. S is in a Gettier situation with respect to p if and only if S confidently believes that p on the basis of whatever factors F constitute her epistemic position with respect to p, p is true but F is not connected with the truth of p. For example, suppose S confidently believes the disjunction p or q on the basis of a normally reliable testimony that p and an inference from p to the disjunction p or q. If we now imagine that p is false but q is true, we get a situation in which S confidently believes the disjunction p or q on the basis of a reliable testimony that p and an inference from p to the disjunction of p or q but where the testimony is not connected with the truth of the disjunction p or q.

Anti-Scepticism: The conclusions of sceptical arguments, such as that I do not know that I have hands, are false but can be compelling.

Attitude: Knowledge of a proposition entails some doxastic attitude towards that proposition, which we will assume to be confident or outright belief.

Closure: Knowledge is closed under known entailment (i.e. if a subject S knows that p and S knows that p entails q, then S knows that q), or complies with some plausible modification of this idea.

Factivity: Knowledge of a proposition entails the truth of that proposition.

Fallibilism: If a subject knows some proposition p, whatever factors F constitute the subject’s epistemic position with respect to p, F need not entail p.

Relation: Seeing, hearing, touching and other ways of perceiving that p entail knowing that p.
Robust: Knowledge is a relatively disciplined, stable or robust phenomenon. It is not a disparately varied, individual-dependent or arbitrary relation or set of relations. In particular, it does not come and go with the arbitrariness and ease of changing an individual’s practical interests.

Role: Knowledge attributions play certain social roles, such as highlighting good informants about the truth of the proposition embedded under a knowledge attribution.
**Bibliography**


http://plato.stanford.edu/entries/folkpsych-simulation/


*Proceedings from the Annual Meeting of the Chicago Linguistic Society*, 43/1: 231–42.


